LATIN AMERICAN BUSINESS ENVIRONMENT

2022 REPORT

Towards a Green and Equitable Post-Covid Recovery

UF | Center for Latin American Studies
UNIVERSITY of FLORIDA

MASTER OF ARTS IN LATIN AMERICAN STUDIES

The Center for Latin American Studies is uniquely poised to help students achieve their educational and career goals with a Master of Arts in Latin American Studies (MALAS) degree. With over 160 experts on the region, the Center is recognized today as one of the top-ranked centers internationally and has been continuously designated as a National Resource Center by the U.S. Department of Education since 1961.

LATIN AMERICAN BUSINESS ENVIRONMENT PROGRAM

Business professionals worldwide are striving to deal with the ramifications of environmental degradation and social injustice. Prepare to examine pressing issues and causes with the University of Florida's Latin American Business Environment (LABE) specialization. The master's program facilitates discussion and exploration to transform old systems and innovate for the quality of our future. Through LABE, a Latin American perspective, and a desire to drive social and environmental change are championed.

TROPICAL CONSERVATION AND DEVELOPMENT

The Tropical Conservation and Development (TCD) program at UF has for more than two decades played a central role in convening UF students, faculty, and partners in the theoretical and practical advancement of tropical conservation and development. Our aim is for the university to effectively contribute to conservation and development in tropical regions. We do this by crossing disciplines, linking academics to practitioners, and working in partnership with a wide range of stakeholders. TCD is recognized internationally as a key university program training leaders in this field.

MASTER OF SUSTAINABLE DEVELOPMENT PRACTICE

The University of Florida's Master of Sustainable Development Practice (MDP) program is part of the Global MDP Association, which consists of 36 MDP programs in 25 countries around the world. The MDP degree is focused on training development practitioners who are able to address development challenges in innovative ways. The UF MDP bridges the Natural, Social and Health sciences and Management skills.

COLLABORATING ORGANIZATIONS

CITATION

LABER - Latin American Business Environment Report. 2022. Towards a Green and Equitable Post-Covid Recovery. University of Florida, Gainesville, FL. – 2022.

GRAPHIC DESIGN

Marina Espada and Mayara Fujitani

The contents of this report were developed under a National Resource Center grant from the U.S. Department of Education. Those contents, however, do not necessarily represent the policy of the U.S. Department of Education, and you should not assume endorsement by the Federal Government.

UF Center for Latin American Studies UNIVERSITY of FLORIDA

LATIN AMERICAN BUSINESS ENVIRONMENT

2022 REPORT

Towards a Green and Equitable Post-Covid Recovery

Center for Latin American Studies

University of Florida

Robert Buschbacher
Ana Violato Espada
Susan Paulson

Organizers

May 2022

PREFACE

It is my honor to present the 23rd annual edition of the Latin American Business Environment Report of the Center for Latin American Studies at the University of Florida. This report focuses on the challenges and opportunities for business and financial institutions to ameliorate pressing contemporary problems like climate change, biodiversity, and socioenvironmental justice. It draws on and brings together the strengths of the Center in Latin American Business, Tropical Conservation and Development, and Development Practice. Our goal is to promote dialogues and collaborations between the business community and environmentally concerned constituencies to contribute to building inclusive and ecologically sustainable futures in Latin America. My belief is that green business has the potential to be an important path for more equitable and democratic societies in the Americas.

I want to thank professors Robert Buschbacher, Susan Paulson, and Ana Violato Espada for conceptualizing and editing this report and to all the contributors for their articles.

Carlos de la Torre

Director, Center for Latin American Studies

University of Florida

CONTENTS

SETTING THE SCENE

Latin American Business and the Challenge of a Green and Equitable Post-Covid Recovery

Robert Buschbacher[1,2,3], Susan Paulson[2,3], Ana Violato Espada[1,2,4]

School of Forest, Fisheries, and Geomatics Sciences, University of Florida [1]

Tropical Conservation and Development Program, University of Florida [2]

Center for Latin American Studies, University of Florida [3]

U.S. Forest Service International Programs - Brazil [4]

INTRODUCTION

This special issue of the Latin American Business Environment Report uses an Environmental, Social, and Governance framework to explore the proposition that the business community can make major contributions to positive outcomes for all stakeholders, including companies, communities, and the environment. For 23 years, the University of Florida's Center for Latin American Studies, one of the oldest and most prestigious Centers of Latin American Studies in the world, has produced an annual report on the Latin American Business Environment. The 2022 report describes innovative approaches to value chain development, investment, and corporate social responsibility in Latin America. It highlights positive business experiences and analyses that interact with areas that are biologically rich and socioeconomically challenged, and illuminates ways in which U.S. and Latin American business communities can learn from and collaborate with these experiences.

Economic and business enterprises are important contributors to contemporary societies. Enterprises are embedded in overarching social, political, and economic systems, which create conditions for their operation that can be seen as opportunities and constraints. In turn, business enterprises affect how those broader systems develop over time. Businesses also exist within the biophysical environment, which can be a source of raw materials, a destination for waste products, and a place for social and cultural interactions. Like social systems, biophysical environments are sources of opportunities and constraints, and business enterprises can affect them in both positive and negative ways.

Looking at businesses in this broader framework calls attention to their role as key actors embedded within larger socioecological systems. Today's societies, communities, and ecosystems are facing challenging times amid accelerating climate crises, unprecedented loss of biodiversity and ecosystem services, and an urgent need to address social and economic inequities. As these interlocking challenges, addressed by the UN's Sustainable Development Goals, have been exacerbated by the Covid-19 pandemic, UN Secretary-General António Guterres stated that "We need to turn the recovery into a real opportunity to do things right for the future."

The Environmental, Social, and Governance (ESG) framework offers a positive perspective on the role of businesses as key actor in addressing these critical societal challenges. While ESG is often used as an investment screening mechanism for socially responsible investors, it can also provide a framework for proactive initiatives by businesses aiming to contribute to the interlocking crises of climate change, biodiversity loss, and socioeconomic inequality.

In May, 2020, with a view to better understanding the challenges and opportunities for a green and inclusive post-Covid recovery, UF's Center for Latin American Studies convened a panel of experts from the United Nations Economic Commission for Latin America and the Caribbean (ECLAC); the Global Environment Facility; Peterson Institute for International Economics; and the Peruvian Ministry for Strategic Development, Natural Resources, and the Environment. A main conclusion of the panel was a call for Latin America to pursue more integrated development models, less dependent on global markets and financial flows, that advance the ESG agenda. Specifically, **ECLAC calls for prioritizing "investment in strategic sectors such as clean, environmental, digital energy, mobility and care, promoting employment and gender equity."** Furthermore, "public investment should be used to attract private investment (crowding-in) and tax incentives should be directed towards renewable energy, decarbonization, digital inclusion, research and development" [page 27 in the presentation of the 2021 Preliminary Overview of the Economies of Latin America and the Caribbean, released in January 2022 and accessed 22 April 2022].

This report describes and analyzes a range of initiatives that respond to that call.

CONTEXT

Latin America, a diverse region with longstanding challenges related to social and economic development, faces an array of issues related to climate change, biodiversity loss, and socioeconomic inequality. According to the most recent Statistical Yearbook presented by the Economic Commission for Latin America and the Caribbean (ECLAC), the region experienced a 6.8% drop in Gross Domestic Product in 2020 during the Covid-19 pandemic, with a 6.3% recovery in 2021. Similarly, Foreign Direct Investment declined by 20.4% in the region in 2020. Peru, Chile, Argentina, and Colombia

all grew by 9.5% or more in 2021, but the region as a whole has a much lower projected growth rate of 2.1% in 2022 with its largest economy, Brazil, projected to grow at only 0.5%.

These data highlight profound asymmetries between high income and lower income economies worldwide, with the former projected to return to their forecasted pre-pandemic growth trajectory in 2022, while emerging economies only return to it in 2025. According to ECLAC, "investment and productivity are a structural problem that condition the possibility of sustaining a recovery beyond the GDP rebound in 2021." In addition, "employment will recover at a slower pace than economic activity: 30% of jobs lost in 2020 will not be recovered in 2021" [pages 14 and 15 in the presentation of the 2021 Preliminary Overview of the Economies of Latin America and the Caribbean, released in January 2022 and accessed 22 April 2022].

The ECLAC Statistical Yearbook for Latin America and the Caribbean 2021 also documents that the region has been hit particularly hard by the Covid-19 pandemic. Poverty in 2020 saw the biggest annual increase of the last 20 years, as a 2.5 percent rise puts 33% of the population below poverty level, and a 1.7 percent increase leaves 13.1% of the population in extreme poverty. Similarly, the population's rate of participation in the formal economy declined from 62.5% in 2019 to 57.8% in 2020. Job loss is particularly acute among women. Furthermore, the percent of population without their own income especially increased among people from 15 to 24 years of age [Statistical Yearbook press release from April 2022, accessed April 22, 2022].

Latin America is a globally important region for its extensive areas of forests and important wetland and aquatic ecosystems. The Amazon contains the largest and most diverse tropical rainforest in the world. The tropical Andes, Atlantic Rainforest, Cerrado savannah, Chile's Valdivian forest, the Tumbes-Chocó-Magdalena region of South America's Pacific coast (Colombia, Ecuador, Peru), and Mesomerica are all notable biodiversity hotspots.

Tropical forests in Latin America, in particular, are considered frontiers for thriving nature-based economies, making them both an appealing site for innovative business investments and an essential source of traditional and indigenous knowledges and local livelihoods. However, these forests are under constant threat of forest degradation and deforestation, which aggravate climate change in the region and worldwide. Climate change in Latin America is already threatening food production and contributing to increasing frequency and intensity of wildfires, as rising sea levels increase risk of catastrophic flooding.

The United Nations urges attention to climate change impacts, including costly adaptions to governments and the private sector, as well as profound impacts on human health and food security. Protecting tropical and subtropical forests is a crucial part of meeting global climate, biodiversity and sustainable development goals. This report makes the case that using these forest resources and services with responsibility offers one of the biggest opportunities for climate action through multistakeholder alliances in the coming decade.

LABE REPORT

These conditions highlight **needs and opportunities for the business community to make positive contributions to the region's sustainable development.** As a contribution to addressing that challenge, this LABE report **focuses on business-related community-based development in rural areas**, presenting **eight experiences with diverse perspectives and viewpoints**, operating at multiple scales.

An initial set of three cases looks at value chain development and social innovation for three tropical forest products: the aguaje palm which grows in dense stands in Amazonian wetlands and produces highly appreciated and nutritious fruits used in a variety of products; the Brazil nut which is an emergent forest tree and provides one of the most economically important resources for forest-dwelling communities throughout the Amazon; and ecotourism which is a fast-growing niche of a very large market. All three studies were contributed by graduate students in UF's Tropical Conservation and Development Program (TCD) and Master's Degree in Sustainable Development Practice (MDP). Their analyses illuminate the economic potential and ongoing social innovation capacity of the region's rural populations, and alert us to challenges of transport, logistics, and social organization and collaboration among multiple stakeholders, including communities, NGOs, government, and business. Each of these cases includes significant partnerships between community producers and private enterprises, and the analyses explore a range of approaches, opportunities and constraints of such partnerships.

Section 2 presents contrasting, and potentially complementary, experiences with targeted credit, a key catalyst for incentivizing transitions towards production systems that prioritize Environmental, Social, and Governance criteria. Both are from long-standing UF partners who work at NGOs and a regional university in northern Mato Grosso, Brazil. Alexandre Olival describes how a social movement of family farmers on the agricultural frontier used vertical integration to increase the scale and economic viability of sustainable production systems. A direct-to-consumers commercialization platform was developed to address the marketing challenges of highly diverse agroforestry production, and a farmer-managed community bank was created to provide investment capital for further diversification and processing. Renato Farias and co-authors, working in an overlapping region, discuss the efforts of a well-established credit cooperative to leverage its scale and participatory governance structure to expand and prioritize lending for green energy and more sustainable farming practices promoted by NGO and government research agencies. In both cases, the aim is to target investment in credit programs that promote transition away from the lucrative but environmentally destructive modes of beef and grain production favored by traditional credit lines, towards more diverse, small-scale, and sustainable family farming.

Mining is a major source of foreign exchange and economic production throughout the Amazon, realized through surface mining of large-scale deposits requiring large scale long-term investments (e.g. iron or aluminum) as well as placer mining of dispersed deposits that often involves loosely organized groups of producers (e.g. gold). **In Section 3, we present two cases of Corporate Social Responsibility (CSR) practiced by the large mining companies Alcoa and Vale, together with a policy and impact analysis of gold mining in the Bolivian Amazon.** The former cases are presented by collaborators and protagonists of the responsible

entities, while the latter is presented by the Bolivian research think tank Center for Labor and Agrarian Development Studies (CEDLA). The CSR cases illustrate approaches by large, well-capitalized international enterprises and provide important reflections and analysis of the challenges for catalyzing regional development. These cases coincide with the previous cases in highlighting the importance of governance, community participation, well-directed investment capital, technical assistance, and social innovation. The analysis of gold mining in Bolivia shows the need for well-considered public policies that include appropriate regulation as well as fiscal and monetary incentives for practices that incorporate ESG considerations.

The eight cases occurring in Amazonian regions of Brazil, Peru, and Bolivia demonstrate positive and negative experiences that are relevant to other rural areas throughout Latin America. Lessons about what works, together with warnings of ongoing challenges, can be widely applied by businesses committed to collaborating with and supporting community development in other contexts. The concluding chapter addresses issues that must be addressed in order to scale up and mainstream these approaches.

This **report is addressed particularly to members of the U.S. business and finance community who actually or potentially invest and do business in Latin America. It is also of interest to business school students** interested in international business. Finally, we hope that it will be relevant to all those committed to green and just economic enterprises and use of natural resources.

We have collaborated with an innovative team of graphic designers, Marina Espada, Mayara Fujitani, and Ana Violato Espada, to produce this report in what we hope will be an interesting and readable format that makes it easy for business people, practitioners, and students to find key messages. **It is our intent to facilitate a dialogue among researchers, students, members of the business community, NGOs, lending agencies, policy analysts, and others that are committed to making a positive contribution through social innovation and responsible and collaborative business practices.**

Sincerely,

Robert Buschbacher
Ana Violato Espada
Susan Paulson

Organizers

Credits: Felipe Veluk Gutierrez

1

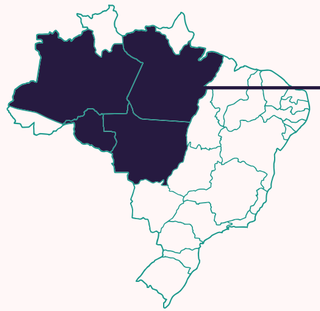
SUSTAINABLE PRODUCTS & VALUE CHAINS

Social innovation and entrepreneurship in the Amazonian-nut value chain, Brazil

Felipe Veluk Gutierrez[1] and André Segura Tomasi[2]

University of Florida School of Forest, Fisheries and Geomatics Sciences, PhD Candidate [1]
felipe.gutierrez@ufl.edu

Instituto Internacional de Educação do Brasil, Project Coordinator [2]
andre@iieb.org.br



LOCATION

Brazilian Amazon

CASE STUDY

Amazonian-nut value chain

INNOVATION

Sustainable business and entrepreneurship environments nourished by **a large network** of governmental and non-governmental organizations, forest-based grassroots organizations, research, funding, and cooperation agencies, as well as various corporations

MAIN LIMITATIONS

Lack of **capacity building** and/or **technical-financial-business** management support to consolidate and/or expand the gains that have been achieved

MAIN CHALLENGES

More **robust and fair payments or incentives** to local harvesters is critical. Raising market recognition and general-public awareness of Amazonian-nut biocultural conservation-added value

KEY LESSONS LEARNED

Hybrid impact financing has the potential for filling main limitations and challenges

keywords:

- **AMAZONIAN-NUT**
- **SOCIAL INNOVATION**
- **ENTREPRENEURSHIP**
- **VALUE CHAIN**

ABSTRACT

The Amazonian-nut has been a major forest product throughout the Amazon, supporting the livelihoods of Indigenous and traditional communities for generations. Amazonian-nut is also an important tropical forest commodity. In Brazil, particularly during the past two decades, community-based Amazonian-nut forest management and enterprises have been key strategies for promoting biocultural conservation and sustainable development. More recently, several Amazonian-nut partnerships – with a diverse set of actors from communities, NGOs, government, and business – have been taking shape, aiming to advance collaboratively and creatively the value chain development of this important tropical forest resource. This paper highlights and discusses how social innovation and entrepreneurship have been applied to help overcome some of the many challenges confronted by these community-based initiatives and their supporters, offering insight for future value chain development and business partnerships with Amazonian-nut and beyond.

KEY MESSAGES

1 Cutting-edge and enduring solutions come from **longer-term commitment** among a diverse set of actors

2 **Strategic marketing** of Amazonian-nut's conservation added-value is still incipient

3 Networking and **new business partnerships** (nationally and abroad) are key

4 Business models should **respect** local cultures, livelihoods, and the environment

5 Need for **dialogue and knowledge exchange** to influence governance, policy design, and implementation

Check out the complete Latin American Business Environment Report released in 2022

INTRODUCTION

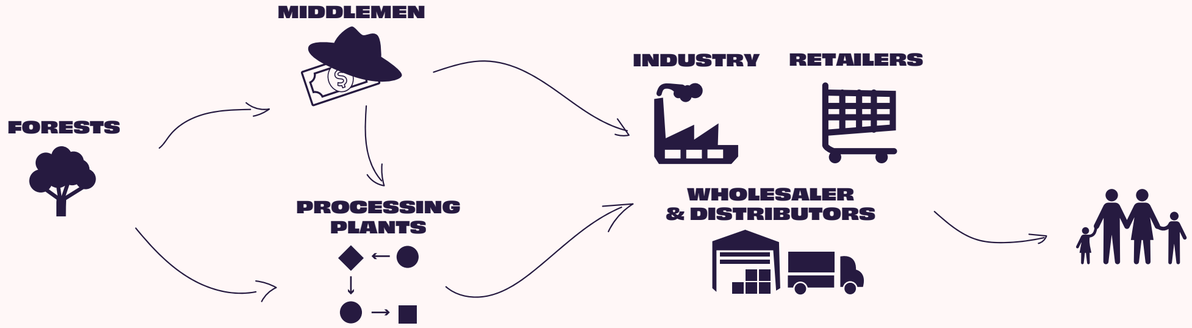
The Amazonian-nut (*Bertholletia excelsa*), also referred to as Brazil-nut (Figure 1), is a major non-timber forest product (NTFP) throughout the Amazon basin, where it has supported the livelihoods of Indigenous and traditional communities for generations (Shepard and Ramirez 2011, Thomas et al. 2014, Kainer et al. 2018). It is also an important tropical forest commodity in global and national markets (Toledo et al. 2016, Guariguata et al. 2017). Nevertheless, according to the International Nut and Dried Fruit Council (INC), Amazonian-nut consumption in high- and mid-income economies still accounts for only 1% of the US$ 37.5 billion global market share of all nuts, which is led by almonds, cashews, walnuts, pistachios, and hazelnuts (INC 2018, cited in Wadt et al. 2020). The latter are all monocrops which require major inputs of water, agrochemicals, and energy to maximize harvest and profit. In contrast, Amazonian-nuts are harvested from naturally-occurring stands in mature forests in Amazonia. In this context, opportunities to market Amazonian-nuts incentivizes conservation of this globally important ecosystem (Figure 2). This study demonstrates that community-based Amazonian-nut forest management and enterprises are important means to the ends of supporting local peoples' livelihoods and wellbeing while protecting their associated biocultural diversity and Amazonian-nut rich forests.

[Fig. 1] | Amazonian-nut fruit or ouriço with shelled nuts (or seeds) inside. Credit: Lilo Clareto, ISA.

Amazonian-nut tree or castanheira. Credit: André Tomasi, IEB. | [Fig. 2]

Amazonian-nut's value chain is complex, with a long path from forests to end-consumers. It involves various links and actors with different roles, interests, and power dynamics – see simplified version in Figure 3. The relationships among value chain actors are context- or region-specific. Some are formal, such as a cosmetics industry partner that invests in fair trade business; most are informal, particularly among place-based actors with high levels of market intervention and control by middlemen.

These informal relationships pose challenges for accountability and business legitimacy, impacting power relationships among actors. Informality also jeopardizes or obscures harvest statistics and forecasts, which ultimately influence market speculations, and fluctuations of both prices and sales. Amazonian-nut harvesting, processing, and sales are still largely dependent on powerful family or business oligarchies that have exerted their resources and control over territories and local forest-extractivists for many generations. **In recent years, community-based initiatives for Amazonian-nut forest management and enterprises have been evolving as major strategies for addressing these barriers and promoting more socioeconomically, culturally attuned, and ecologically viable solutions for conservation and sustainable development.** Communities and organizations are working now to sustain and scale up these initiatives.



[Fig. 3] | Amazonian-nut value chain general scheme. Credit: Authors.

CONTEXT

To elucidate challenges and opportunities for the Amazonian-nut value chain in Brazil, and based on data collected and analyzed by several scholars (Guariguata et al. 2017, Mori and Prance 1990, Toledo et al. 2016, Wadt et al. 2020), we highlight the economic importance of this product, as well as key contrasts among top Amazonian-nut producing countries.

Amazonian-nut is the second most important NTFP from Brazilian Amazonia in terms of annual production value (US$ 34.8 million – 2019 statistics and currency conversion rates; IBGE 2019), just after Açai berries (Euterpe oleracea & Euterpe precatoria); and third in volume, just behind Açai berries and Babaçu (Attalea speciosa) seeds.

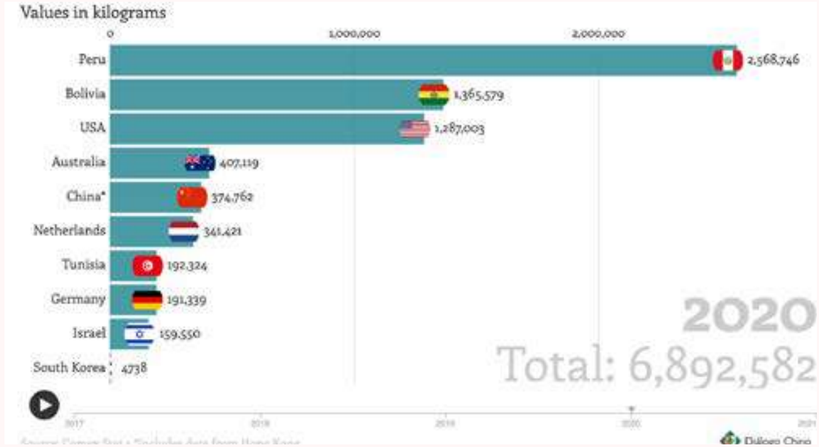
Brazil's average Amazonian-nut production in the past 10 years has been 36,760 tons. Nevertheless, researchers project it could increase up to 115,000 tons, a possibility confirmed by 1970 production – a record of 104,487 tons.

Amazonian-nut production is distributed 74% in Western and 26% in Eastern Amazonia. The top three Brazilian producing states in the past ten years have been Amazonas, with 13,300 tons, followed by Acre with 11,300 tons, and Pará with 7,500 tons per year. These three states together represent almost 90% of the production.

The Amazonian-nut global market is valued at around US$ 370 million per year. Brazil, Bolivia, and Peru are the top three producing countries. Although varying year by year, Brazil was the largest Amazonian-nut producer in 2018, with 34,000 tons or 47% of global production – Bolivia was the next largest producer, with a total production of 31,000 tons (43%), followed by Peru with 6,000 tons (8%).

However, while Brazil targets mostly its domestic market (74% in 2014), Bolivia and Peru focus on the international (i.e., United States, Asia, and Europe), dominating more than 90% of it – Bolivia alone controlling more than 84% of the international kernel (without shells) market. Kernel sales represent 94% of the international market (US$ 344.1 million) and Brazil holds only 5% of it; while in-shell (unprocessed nut) sales represent only 6% (US$ 23.6 million) and Brazil controls 53%. The price difference between the two markets (kernel and in-shell) reaches more than 400%, revealing Brazil's staggering difference – and opportunity to be developed – in terms of product value added and revenue.

Improving commercial relations and access to markets, domestically and particularly abroad, such as with North America, Europe, and Asia – as shown in Figure 4 – becomes imperative. Peru and Bolivia, big importers of Amazonian-nuts from Brazil, ultimately process and resell kernels to other markets, adding value and profit.



[Fig. 4] Main importers of Amazonian-nuts from Brazil in 2020. Source: Flávia Milhorance's article International markets can boost sustainable Brazil nut production, originally published in Diálogo Chino, shared here under a Creative Commons license.

CASE STUDY

During recent years, Brazil has witnessed the emergence of several Amazonian-nut projects, partnerships or collectives aiming to tackle collaboratively and creatively the value chain development (VCD) of this important tropical forest resource-commodity. **These novel initiatives involve a large network of governmental and non-governmental organizations, forest-based grassroots organizations, research, funding, and cooperation agencies, as well as various corporations. These actors are successfully collaborating and overcoming many obstacles to promote social innovation and entrepreneurship within the Amazonian-nut extractive economy and market.** The following examples highlight some of the latest cutting-edge broader-scale initiatives that are on the forefront of this "Amazonian-nut revolution."

SEMEAR Castanha & Castanhadora-App

SEMEAR Castanha is a multi-stakeholder network, a collective promoting Amazonian-nut VCD through training, knowledge exchange, and social entrepreneurship – targeting 13 sustainable use protected areas and Indigenous lands in the states of Amazonas and Rondônia. The collective emerged in 2018 as a continuation of Formar Castanha, a collaborative long-term regional grassroots participatory capacity-building program on Amazonian-nut VCD and entrepreneurship. This program was led by IEB (International Education Institute of Brazil), with funding and technical support from the US Agency for International Development (USAID) and US Forest Service (USFS), in collaboration with the Brazilian government's Chico Mendes

Institute for Biodiversity Conservation (ICMBio) and National Indian Foundation (FUNAI). Beneficiaries and other partners include key NGOs, local grassroots organizations, and agro-extractivist cooperatives (IEB 2019).

In 2019, Semear Castanha launched a robust and novel technological package that was jointly designed and adapted with forest-based stakeholders to provide solutions for management, production, trade, marketing, and the value chain in general. The package includes a training guide and field notebook for Amazonian-nut collectors (castanheiros); videos, podcasts and a brochure of good management practices for harvesting and storage; and also a smartphone application (app) called Castanhadora. The app helps castanheiros (Figure 5) track their activities-time-cash flow, while guiding more equitable sale prices (IEB 2019). That same year Castanhadora won the prestigious Innovation Challenge award from the UN Development Programme in Brazil.

[Fig. 5] Maicon Aruá – indigenous professor – teaching on the Castanhadora app at the Rio Branco Indigenous Land, Rondônia. Credit: Keli Réggias, Pacto das Águas.

Sentinels of the Forest & COOPAVAM

Sentinels of the Forest is a community-based Amazonian-nut enterprise which started in 2008 as a partnership between COOPAVAM (Cooperativa de Agricultores do Vale do Amanhecer), a small farmers cooperative in a rural settlement, and Indigenous people from six ethnic groups from Northwestern Mato Grosso and Rondônia. This coalition helps protect roughly 1.5 million hectares of tropical forests, providing income and livelihood support to more than 2,500 people involved in the Amazonian-nut business (Nunes and Rugnitz 2015, Davenport et al. 2017). Between 2013 and 2018, their Amazonian-nut (in-shell or unprocessed) annual gross revenue increased from R$ 559,000 to R$ 1,100,00. Sentinels of the Forest has also pushed the limits in processing Amazonian-nuts, developing a diversified line of products – oil, flour, pasta, granola bars, and cookies – with more commercial added value.

Strategic partnerships have been fundamental in their growth. This social enterprise has developed close ties with several local grassroots, governmental and non-governmental organizations, funding agencies, and particularly, the private sector, including large corporations such as Natura (cosmetics), and more recently Carrefour (retailer). They have also provided food to more than 42,000 beneficiaries – children, youth, elderly, and pregnant women with risk of nutritional and food insecurity – by selling their Amazonian-nut products to local municipalities – who then donate them under the national public policy known as Food Acquisition Program (PAA). Another important achievement, in 2012 was that COOPAVAM started receiving a state tax benefit – known as ICMS – which exempted their Amazonian-nut products (nuts, oil and flour) from sales tax, allowing them to increase their payments to local harvesters and better compete with middleman intervention (COOPAVAM 2021).

Rede de Cantinas da Terra do Meio

Rede de Cantinas da Terra do Meio (Rede de Cantinas, hereafter) is a pioneering, multi-NTFP, community-based enterprise network and sustainable business platform. Its origin can be traced back to the late 2000s, and it has matured in the last decade through partnerships between several local grassroots-organizations, in collaboration with the Socioenvironmental Institute (ISA), a Brazilian NGO, and other key local and regional governmental and non-governmental institutions, and private companies. This coalition is located within an 8.5 million hectare tropical forest conservation mosaic in mid-southern Pará state (Villas-Bôas et al. 2017 and 2018), amidst one of the most highly contested and threatened Amazonian frontiers (Schmink and Wood 2012, Doblas 2015).

Beiradeiros (riverine dwellers), indigenous peoples, and small farmers within eight protected areas and adjacent territories, and their 14 associations, directly participate by selling their products through the network (Straatman 2014, Rezende 2020) – benefiting almost 3,000 forest producers (Figure 6) and more than 600 households. Rede de Cantinas has grown immensely, and its strength lies in their tight and diverse partnerships – internal and external – and large portfolio of NTFPs. The network now includes 44 storehouses, 27 cantinas (community-owned and managed warehouses; Figure 7), and 8 micro-processing factories. Rede de Cantinas has had more than US$ 1 million in sales of various NTFPs since 2009; Amazonian-nut is their main product, and Wickbold (a big national bread and bakery manufacturer) their biggest Amazonian-nut buyer. Rede de Cantinas has its own brand, Vem do Xingu, and they also sell their many NTFPs within the Origens Brasil platform (next section).

[Fig.6] Pedro Pereira, local producer openning an Amazonian-nut ouriço in Terra do Meio, Pará. Credit: Rogério Assis, ISA.

[Fig. 7] Pedro Pereira, community-warehouse coordinator, at the Paulo Afonso cantina in Terra do Meio, Pará. Credit: Rogério Assis, ISA.

Origens Brasil

Origens Brasil is a large network launched in 2016 that promotes sustainable business across five priority conservation regions in Amazonia, connecting Indigenous and traditional peoples to the national market. Origens Brasil promotes ethical trade through assured origin, transparency, and traceability of the value chain of multiple NTFPs (Origens Brasil 2020; click here for full line of products), including the Amazonian-nut (Figure 8), one of its "start-products." Conceptualized by two Brazilian NGOs, ISA and IMAFLORA (Institute of Forest and Agriculture Management and Certification), it has been developed in collaboration with around 49 supporting local grassroots organizations, funding agencies, and currently 28 member companies, such as Wickbold, Atina Ativos Naturais, Mercur, Firmenich, Tucum, Soul Brasil, Natura, and Osklen.

Origens Brasil at its core is an innovative socio-environmental ethical trade business platform. It connects producers to end-consumers using an innovative social-marketing campaign, facilitated by its tree-shaped brand-seal QR code (Figure 9), allowing anyone with a smartphone to inquire about a product's origin and conservation outcomes. According to their latest report, Origens Brasil contributes to the conservation of 52 million hectares of tropical forests; in collaboration with 43 Indigenous and traditional peoples; directly supporting 1,882 producers and

Dried Amazonian-nut package from Rede de Cantinas – also sold within Origens Brasil. Credit: ISA & Origens Brasil. [Fig. 8]

almost 13,000 beneficiaries on the ground. The accumulated sales since 2016 for all its NTFPs and target regions is around US$ 2 million (Origens Brasil 2020). Although recent, this cutting-edge initiative has been recognized nationally and abroad, winning the United Nations International Innovation Award for Sustainable Food and Agriculture in 2019.

[Fig. 9] | Amazonian-nut QR code & label from Origens Brasil & Rede de Cantinas. Credit: Origens Brasil.

The above cases describe enduring efforts led not by a single entity, but by groups of people, organizations and institutions who have joined forces and are collectively promoting significant changes within the Amazonian-nut extractive economy and value chain.

These cases highlight the importance of multi-stakeholder collaboration, with leadership and protagonism by NGOs and community organizations, together with essential support from corporations and government. Following global trends, "innovation" and particularly "social innovation" are becoming trending or hot topics among conservation and sustainable development supporters and platforms in Amazonia, particularly in Brazil. More than just 'buzz-words,' these cases demonstrate the importance and viability of on-the-ground initiatives targeting Amazonian NTFPs (such as the Amazonian-nut), and the Amazonian bioeconomy.

LIMITATIONS AND CHALLENGES

Some of the main bottlenecks and challenges associated with the Amazonian-nut extractive economy and value chain are summarized below:

- Lack of capacity building and/or technical-financial-business management support to Amazonian-nut harvesters, small-scale social entrepreneurs, and partner grassroots organizations to consolidate and/or expand the gains that have been achieved.
- Amazonian-nut harvest is a seasonal activity, and fruit and nut productivity vary a lot each year and within each region, often raising market uncertainty and speculation, and ultimately impacting the overall production, price, and sales.
- Amazonian-nut commercial positioning is also hindered by market competition with other Amazonian-nut producing countries, particularly for international markets, and competition with other types of nuts (almonds, cashews, walnuts, etc.) that have more reliable (quality and quantity) and affordable (but less sustainable) supplies.
- Reducing the extractive economy informality and historical middleman intervention over trade negotiations is vital, as previously introduced.
- More robust and fair payments or incentives (monetary or not) to local harvesters is critical. Raising market recognition and general-public awareness of Amazonian-nut biocultural conservation-added value becomes imperative.
- Design (or redesign) and/or implementation of old and new more effective policies and programs, such as the Minimum Price Guarantee for Sociobiodiversity Products (PGPMBio), National School Food Program (PNAE), and the Food Acquisition Program (PAA).
- Improving compliance with quality and sanitary regulations and standards is key for improving market access, nationally and abroad.
- Limitations surrounding logistics and infrastructure are well-known in the Amazon, challenging transportation (to and from more remote and less-accessible places) and increasing the cost of product distribution.
- Strategic data, information and knowledge for better understanding, monitoring, and supporting Amazonian-nut VCD and strengthening and connecting its various linkages – covering such a vast and diverse region as the Brazilian Amazon – has been historically very challenging (see next section).
- Other limitations and challenges relate to the adoption of new technologies for harvesting, storage, and processing plants; piloting and investing in local entrepreneurs and business for a more diversified line of products or subproducts with more commercial added value; and the implementation of more strategic and collaborative monitoring systems to track and protect Amazonian-nut-rich forests and related sociobiodiversity.

OPPORTUNITIES

Collaboration towards Amazonian-nut entrepreneurship and VCD in Brazil is unprecedented – being one of the keys towards more sustainable and scaled-up initiatives for promoting both conservation and development. This social innovation is happening in many shapes and sizes, based on different social mobilization contexts and paths – among grassroot, governmental and non-governmental organizations, cooperation and funding agencies, research and financing institutions, and the private sector. That includes unconventional partnerships between ribeirinhos, Indigenous peoples, agro-extractive small-scale farmers, and quilombolas – social groups that have historically been set apart or in conflict over natural resource use and management. **These partnerships are much more than just economic-business platforms; they are also opportunities for human and social capital development, improved infrastructure or technology, communication platforms and more public awareness, and a myriad of other things.**

These multi-stakeholder partnerships are also potential SI and entrepreneurship hubs for sparking creativity, and for crafting solutions that support adaptability within these complex realities. The Amazonian-nut value chain is a group or community endeavor at its core, particularly in the forest (e.g., nut harvesting, monitoring, and protection of Amazonian-nut groves), but elsewhere as well. Ranging from the establishment and consolidation of community institutions (e.g., functioning of associations or cooperatives, setting the rules to access and use forest resources); to sales, and forging of more sustainable business platforms with external key partners; from co-production of knowledge (local and scientific), to capacity building and exchange; or from advocacy and general-public awareness to the design and implementation of public policies and programs.

Unfortunately, these partnerships and solutions are still the exception within this very fragmented, informal, and low technology value chain. Therefore, an urgent call must be heard, and these **socially innovative platforms or environments should be better understood, acknowledged, and most importantly, collectively supported** by the various stakeholders involved – locally, regionally, and elsewhere, particularly within the national and international private sector community, cooperation and funding agencies, investors, and philanthropy. The Amazonian-nut Observatory (OCA, for short in Brazil) was launched in 2021 with that mission – to improve communication, articulation and cooperation between various Amazonian-nut value chain supporting institutions, collectives, actors, and formal and informal organizations. OCA is a network committed to improving the livelihoods of Amazonian-nut forest-dependent communities and conservation in Brazil, promoting engagement and dialogue with market actors, particularly the industry and consumers. It is also a Think Tank that seeks to catalyze knowledge and intelligence into the Amazonian-nut value chain, rethinking policy design and implementation, strategic partnerships of all sorts, while encouraging smart and sustainable business solutions. OCA encourages and invites those interested in supporting Amazonian-nut VCD to reach out and be part of this "Amazonian-nut revolution."

OPPORTUNITIES FOR LATIN AMERICAN BUSINESS ENVIRONMENT

Forests rich in Amazonian-nuts provide many environmental services. They protect biodiversity, climate, and water regulation, while supporting food security, cultural heritage, and the livelihoods of thousands of Amazonian forest-dependent communities. Yet, **Amazonian-nut is still greatly undervalued in the market – being treated as just another tree nut commodity. While it is recognized for its oil-rich nutritious qualities, the contribution of Amazonian-nut to social-environmental conservation and sustainable development is still neglected.**

This needs to change rapidly, and the efforts so far for creating more awareness and better market positioning are still far from ideal. In response, national and – particularly – international communities must step in. As highlighted by Milhorance (2021), a thorough recent study on Amazonian-nut value chain financing opportunities – led by the Sustainable Connections Institute, Conexsus – identified that one of the biggest challenges is the lack of public policy support for Amazonian products and bioeconomy. For example, between 2019 and 2020, Brazil's federal government provided US$ 368 million of rural credit targeting Amazonian states, but only US$ 10 million (less than 3%) were used for investments in sustainable projects or business – and from this amount, just US$ 1.5 million supported the Amazonian-nut extractive economy and entrepreneurship (Pimenta et al. 2021).

Hybrid impact financing has the potential for filling this gap. Conexsus estimated that US$ 10.4 million is needed annually for better structuring the Amazonian-nut value chain of the local producers and organizations (associations and cooperatives) included in the study (Pimenta et al. 2021) – which represent 15,000 forest-extractivists or roughly 30% of the whole value chain community-based stakeholders. Of this total, 77% (US$ 7.3 million) is needed for direct financing (42% would be for supporting working capital, 35% for production costs and processing) and 23% (US$ 2.4 million) for technical assistance. Conexsus' hybrid impact financing portfolio suggests that 70% – of the U$10.4 million annual need – could come in the form of rural credit from Brazil's PRONAF (National Program for Strengthening Family Agriculture), once its access problems are resolved; 23% would be from a mix of Donations, Technical Assistance and Rural Extension, and Services Provision; and finally, the remaining 7% (US$ 728,000 per year) should be generated from Impact Investment & Risk Philanthropy.

Several groundbreaking Amazonian-nut SI and entrepreneurship examples have been shared here. Yet, these forest-based initiatives take time to mature, usually exceeding the duration of shorter-term external interventions (e.g., specific projects and funding). As highlighted by Ros-Tonen et al. (2008:1482), "in addition to product-oriented partnerships which focus on sustainable forest management, there is also a need for politically oriented partnerships based on civil society coalitions." As the authors suggest, these coalitions uphold a vital political 'watchdog function,' where "their awareness-raising campaigns regarding detrimental policies and practices, and advocacy for good forest governance are essential for the creation of the appropriate legal and political framework for sustainable forest management." We need to continue pushing the limits of Amazonian-nut-based SI and entrepreneurship even further – challenging the status quo, crafting and implementing together creative solutions for current and future conservation and sustainable development challenges and opportunities.

KEY MESSAGES/HIGHLIGHTS

- *Cutting-edge and enduring solutions come from longer-term commitment among a diverse set of actors.*
- *Strategic marketing of Amazonian-nut's conservation added-value is still incipient.*
- *Networking and new business partnerships (nationally and abroad) are key.*
- *Business models should respect local cultures, livelihoods, and the environment.*
- *Need for dialogue and knowledge exchange to influence governance, policy design, and implementation.*

Amazonian-nut harvest in the Calha Norte region, Pará. Source: Aloyana Lemos, Origens Brasil. [Fig. 10]

REFERENCES

Cooperativa de agricultores familiares do Assentamento Vale do Amanhecer (COOPAVAM). 2021. “História da COOPAVAM.” Mato Grosso, COOPAVAM. Available at: http://coopavam.org.br/historia [accessed 13.07.21]

Davenport, Robert Brooks, Jorge Luiz Vivan, Peter Herman May, Paulo César Nunes, Lucila Nunes de Vargas, William Leles Souza Costa, Amanda Ribeiro Oliveira, and Raoni Lucas Rajão. 2017. “Adaptive Forest Governance in Northwestern Mato Grosso, Brazil: Pilot Project Outcomes across Agrarian Reform Landscapes.” Environmental Policy and Governance 27(5):453–71.

Doblas, Juan. 2015. Rotas do saque: violações e ameaças à integridade territorial da Terra do Meio (PA). São Paulo: ISA - Instituto socioambiental: 46.

Guariguata, Manuel R., Peter Cronkleton, Amy E. Duchelle, and Pieter A. Zuidema. 2017. “Revisiting the ‘Cornerstone of Amazonian Conservation’: A Socioecological Assessment of Brazil Nut Exploitation.” Biodiversity and Conservation 26(9):2007–27.

Instituto Brasileiro de Geografia e Estatística (IBGE). 2019. “Produção da Extração Vegetal e da Silvicultura 2019.” Rio de Janeiro, Instituto Brasileiro de Geografia e Estatística.

Instituto Internacional de Educacao do Brasil (IEB). 2019. “Guia do Formador Castanheiro: Orientações básicas do Coletivo Semear Castanha para formações sobre a cadeia de valor da Castanha do Brasil.” Brasília, IEB Mil Folhas: 93.

International Nut and Dried Fruit Council Foundation (INC). 2018. “NUTS & DRIED FRUITS: Statistical Yearbook 2018/2019.” International Nut and Dried Fruit Council Foundation: 80.

Kainer, Karen A., Lúcia H. O. Wadt, and Christina L. Staudhammer. 2018. “The Evolving Role of *Bertholletia excelsa* in Amazonia: Contributing to Local Livelihoods and Forest Conservation.” Desenvolvimento e Meio Ambiente 48(1):477–97.

Milhorance, Flávia. 2021. “International markets can boost sustainable Brazil nut production.” Diálogo Chino. Available at: https://dialogochino.net/en/extractive-industries/45504-international0markets-boost-sustainable-brazil-nut-production [accessed 14.01.22]

Mori, Scott A., and Ghillean T. Prance. 1990. “Taxonomy, Ecology, and Economic Botany of the Brazil Nut.” Advances in Economic Botany 8(January):130–50.

Nunes, Paulo Cesar, Rügnitz, Marcos Tito. 2015. Promovendo alternativas econômicas para a conservação das florestas e a valorização dos serviços ambientais indígenas e dos agricultores familiares. Resultados do Projeto Poço de Carbono Juruena -- 1. ed. -- Juruena, Brasil. Associação de Desenvolvimento Rural de Juruena (ADERJUR). Projeto Poço de Carbono. 104 p.

Origens Brasil. 2020. Relatório Origens Brasil 2020: Impactos, resultados e transparência da rede que promove a economia da Floresta em Pé. Origens Brasil: 62. Available at: https://origensbrasil.org.br/media/relatorio-origens-brasil-2020.pdf [accessed 10.02.22]

Pimenta, Carina, Monika Roper, Mauri Andrade. 2021. “Finanças que impactam [ebook]: estudo sobre oportunidades de financiamento para a cadeia da castanha-do-Brasil”. Instituto Conexões Sustentáveis (Conexsus), Belém, PA: CONEXSUS. 59. Available at: https://www.conexsus.org [accessed 20.01.22]

Rezende, Roberto Sanches. 2020. “Agroextractivism and Payment for Environmental Services: The Case of Terra Do Meio Extractive Reserves, Pará, Brazil.” Anuário Antropológico (I):172–89.

Schmink, Marianne, and Charles H. Wood. 2012. “Conflitos sociais ea formação da Amazônia.” Tradução de Noemi Miyasaka Porro e Raimundo Moura. Belém: edu.ufpa: 496.

Shepard, Glenn H., and Henri Ramirez. 2011. “Made in Brazil”: Human Dispersal of the Brazil Nut (*Bertholletia excelsa*, Lecythidaceae) in Ancient Amazonia. Vol. 65.

Straatmann, J. 2014. “Redes voltadas para produtos florestais não madeireiros – análise da influência de redes de cooperação nas cadeias de valor da Terra do Meio no Pará.” Ph.D. dissertation, University of São Paulo: 227.

Thomas, E., C. Alcázar Caicedo, J. Loo, and Roeland Kindt. 2014. “The Distribution of the Brazil Nut (*Bertholletia excelsa*) through Time: From Range Contraction in Glacial Refugia to Anthropogenic Climate Change.” Boletin Del Museo Paraense Emilio Goeldi. Ciencias Naturales (2):267–91.

Toledo, Renata Adriana de, Carina Sernaglia Gomes, Patrícia Cota Gomes, and Roberto Palmieri. 2016. Panorama Nacional Da Cadeia de Valor Da Castanha-Do-Brasil. Imaflora – Instituto de Manejo e Certificação Florestal e Agrícola, Piracicaba, SP, 60.

Villas-Bôas, André, Guerrero, N. R., Junqueira, R. G. P., Postigo, A. 2017. “Xingu: Histórias dos produtos da floresta.” Ed. São Paulo, Instituto Socioambiental: 397.

Villas-Bôas, André, Rodrigo Junqueira, Marcelo Salazar, Augusto Postigo, Jeferson Straatmann, Cristina Velásquez, Juan Doblas, Edione Goveia, Maria Augusta Torres, Victor Cabreira Lima, Fabíola Andressa Moreira da Silva, et al. 2018. “The Extractive Reserves of Terra Do Meio: An Experience of Alternative Development for the Amazon.” Desenvolvimento e Meio Ambiente 48:214–35.

Wadt, Lúcia H. O., André Machado, and Plácido Costa. 2020. “Desafios e Oportunidades para a Promoção da Cadeia da Castanha.” In Webnário: Bioeconomia da Floresta: Desafios e Oportunidades para o Desenvolvimento da Cadeia do Açaí e da Castanha nos estados do Acre, Amazonas, Rondônia e Roraima. You-Tube Web site. https://youtu.be/FOo-5aMrwK8 [accessed 30.09.20]

This paper and research were made possible by funding from the Organization of American States; International Tropical Timber Organization; UF School of Forest, Fisheries and Geomatics Sciences; and UF Office of Graduate Diversity Initiatives. We are thankful for their generous contributions.

Community-based tourism: the fastest growing sector of a massive industry

Pamela Montero Alvarez[1,2]

[1] Tropical Conservation and Development Program, University of Florida.

[2] Biodiversity Institute, University of Florida.

LOCATION

Loreto Region, Peru

CASE STUDY

Community of El Chino, Tahuayo River

INNOVATION

Community of El Chino has conducted **wildlife co-management** since the early 90s, via community agreements, rules, and strong **collaboration** with the government and NGOs

MAIN LIMITATIONS

Communities are a **complex** and **varied group** of people. While some families or individuals may go into tourism, that does not mean all families or individuals want or should participate

MAIN CHALLENGES

The **lack of policies** in tourism lays the foundations for poor and inadequate infrastructure, elevated informality, and uneven distribution of tourism resources and opportunities

KEY LESSONS LEARNED

A business model and business plan must incorporate **community involvement** to avoid socio-environmental opportunism, greenwashing, and pseudo-ecotourism

keywords:

COMMUNITY-BASED TOURISM

SOCIO-ECOLOGICAL CAPITAL

ABSTRACT

The tourism industry has undergone considerable changes and increased its interest in more sustainable and responsible tourism over the years. Visitors are more concerned regarding the environmental conditions of the destination, locals' involvement, and overall fair conditions for tourism development. As a result of this interest and concern, the tourism industry has diversified its offerings and become more participative. Community-based tourism and its associated experiences and products remain the fastest growing sector of this massive industry. This paper aims to shed some light on the emergent trend to make part of the tourism industry more participatory and sustainable, less intrusive, and ensure that locals' participation and visitors' experience are more satisfactory than current operations lacking those components. The case presented here exemplifies how tourism develops in the most unexpected places: riverside communities in the Peruvian Amazon Basin. This paper examines the role of the hidden capital in this type of tourism: the socio-ecological capital. This paper will draw attention to ways in which landscapes attractive to tourists are sustained by the socio-ecological capital that results from the coordination, commitment, dialogue, trust, norms, and regulations, among other dimensions of social capital, employed by communities for protection and appropriate use of natural resources.

KEY MESSAGES

1. Community-based tourism ventures is a **new and innovative niche** in the tourism industry for Latin America
2. Developing CBT products guarantees unique and **specialized products**
3. Conservation actions and community participation are significant components in community-based tourism **sustainability**
4. CBT can **foster the participation** of otherwise excluded communities from the tourism sector
5. In developing countries, informality in tourism operations undermines tourism development and quality, thus the importance of working closely with government agencies, NGOs, and the **private sector**

Check out the complete Latin American Business Environment Report released in 2022

INTRODUCTION

Tourism, a growing industry

The tourism industry has experienced constant growth in the past 60 years, with ever-increasing diversification of products and destinations. Nature-based tourism, ecotourism, and outdoor tourism thrive, and many more types of alternative tourism are being developed (NOMAD LODGES & UNWTO, 2020). Tourism is recognized by the UNWTO as an important economic activity to reduce poverty in the world, and different strategies such as job generation, direct sales, community-based initiatives, tax exclusions, donations, infrastructure, among others, have succeeded in reducing poverty in diverse contexts (UNWTO, 2006). Even though tourism has been recognized as an important and growing economic activity worldwide, sustainable initiatives in developing countries still remain few in number and poorly implemented, especially in rural areas (MINCETUR, n.d., 2015, 2016a, 2016b).

Community-based tourism

Tourism development in and by local communities often involves rural communities as well as natural protected areas that have a key role in conserving biological diversity (Hare & Barrett, 1999; Kiss, 2004). Many authors argue that protected areas offer valuable opportunities for tourism development (Asker et al., 2010; A. Stronza & Pêgas, 2008). A study conducted in the Pacaya-Samiria and the Allpahuayo-Mishana National Reserves in northeaster Peru emphasized the role of communities, not only in terms of conservation of the protected area, but for tourism development (Abellán Cebrián & Alonso Juárez, 2010).

In recent years, conservation initiatives have promoted local communities (indigenous, rural, riverside) as key partners in conservation efforts that highlight tourism (Berkes, 2007; Turner, 2004). Interest in community-based tourism (CBT) arose to integrate social and economic aspects of sustainability with ecotourism and conservation (Goodwin & Santilli, 2009; Lucchetti & Font, 2011). Because CBT is more prevalent in rural areas with little disturbance, or where protected areas are established, it has been associated with conservation practices (Dangi & Jamal, 2016). Efforts of local communities to lead conservation actions in rural or remote areas sometimes correspond with tourism development in the same regions.

Based on a quantitative and qualitative analysis of terminology used in academic literature about CBT, I have developed the following definition of CBT grounded in principles of sustainable development, as well as alternative tourism:

> **CBT is a tourism enterprise where a community or group of communities collectively lead, manage, and implement local tourism operations. The enterprise draws upon the natural and/or cultural resources of the locality and the social capital of the participating communities. This reinforces solidarity in collective efforts and supports values for the preservation of local resources, particularly in areas where these resources serve dual roles as a source of livelihoods and tourism attractions. The participating communities capture the benefits of the tourism enterprise. Due to collective ownership and management, the benefits are broadly shared"**
> **(Montero 2021, p.54).**

Hidden capital in community-based tourism

CBT operations often develop in somewhat protected natural landscapes, which tend to be maintained by local communities living nearby (Dangi & Jamal, 2016; Goodwin & Santilli, 2009; Ruiz-Ballesteros, 2011; Salazar, 2012; Turner, 2004). There is therefore a strong association between natural and social capital, which intertwine to create socio-ecological capital. Usually, private tourism operators have only recognized the natural capital at the destination, and presented it as a pristine or untouched natural location, as a landscape without people, without communities. That natural capital is embedded in socio-ecological capital remains hidden. This paper will draw attention to the socio-ecological capital that results from the coordination, commitment, dialogue, trust, norms, and regulations, among other dimensions of social capital, employed by communities for protection and appropriate use of natural resources, which are in turn attractive to tourists. Of course, another byproduct of this is the tourist attraction. The integral concept of socio-ecological capital can help tourism operators, and tourists, to recognize that natural capital is strongly associated with social capital present in the community and nurtured by the collective effort.

It is therefore essential for tourism operators to recognize the key role of socio-ecological capital, and to nurture and reactivate this capital through appropriate forms of community participation in nature-based tourism in rural areas. This paper will exemplify how and why this should be done, using the Peruvian Amazon as a case study.

CONTEXT

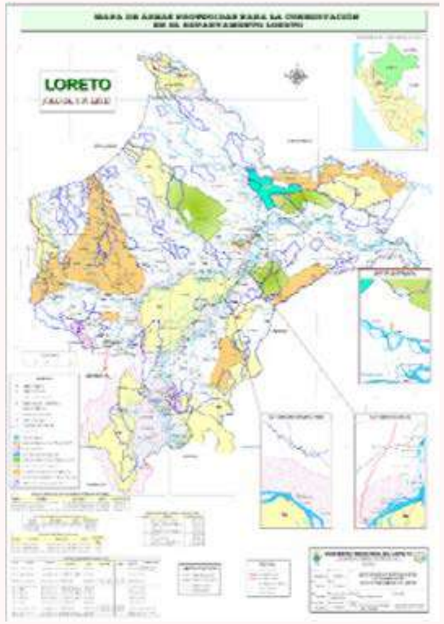
Tourism in the Peruvian Amazon

Many developing countries are currently implementing sustainable tourism strategies, with an emphasis on rural areas. An example is Peru's "Turismo Rural Comunitario" Program (MINCETUR, n.d., 2015, 2016a, 2016b). Since 2015 tourism in Peru has become the second source of foreign currency; in 2019 it exceeded the value of exports from the primary sector (agricultural and fishery products), and was 22% higher than oil and gas (Daries et al., 2021). To illustrate how conservation and tourism benefit from each other, Peru's National Service of Protected Natural Areas (SERNANP) reported that the resources directly collected in 2019 from tourism in protected areas were US$11,017 million, while highlighting the role that job creation in nature tourism has on local economies (Daries et al., 2021).

The Amazon Region of Loreto, Peru exemplifies the potentiality of CBT, while sharing features of many other areas throughout the 9 Amazonian countries. Loreto is the largest department of Peru (36 million hectares), and its capital, Iquitos, is the only major city on Earth that can only be reached by river or air (PROCREL, 2014). In this Region, 42% of the population live in rural areas and around 23% of its territory is under some mechanism of protection (INEI, 2009; SERNANP, 2017). Currently, there are 76 protected areas administrated by the SERNANP (The National Service of Protected Areas), 18 administered by the Regional Government and 120 administered by private entities (organizations or citizens) (MINAGRI, 1997; SERNANP, 2017). Additionally, Loreto has 499 indigenous communities legally recognized, and most of the 1,129 riverside communities registered nationwide are located in this Region (INEI, 2009).

Figures 1 and 2 illustrate the number/concentration of communities living nearby or inside protected areas, and thus the great potential for a large number of communities to participate in tourism and conservation.

[Fig. 1] Map of indigenous and riverside communities in Loreto, Peru
Source: https://www.ibcperu.org/wp-content/uploads/2017/06/DIRECTORIO-DE-COMUNIDADES-CAMPESINAS-DEL-PERU-2016.pdf



[Fig. 2] Map of protected areas in Loreto, Peru.
Source: http://siar.regionloreto.gob.pe/sites/default/files/archivos/public/docs/1209.jpg

[Fig. 3] "Heading to El Dorado," a Community-Based Tourism program offered by the Peruvian Government to explore the Peruvian Amazon at the Pacaya-Samiria National Reserve

These communities are already actively engaged in conservation via collective actions, and the vitality of socio-ecological capital is evidenced in the establishment of protected areas adopting a co-management approach. The major tourism attractions of the Loreto Region are precisely its natural environments that integrate Protected Areas and Rural Communities. For example, the Central Government promotes the Community-based experience: "Heading to El Dorado" ("Rumbo al Dorado" in Spanish; https://www.turismocomunitario.com.pe/experiencia/en/rumbo-al-dorado.html) (Fig. 3) to promote tourism conducted by local communities at Pacaya-Samiria National Reserve (MINCETUR, 2015).

CASE STUDY DESCRIPTION

Rural communities in the Peruvian Amazon depend on the natural resources of their rivers, forests and wetlands for food sustenance, construction materials, means of transportation, and medicine, among others (PROCREL, 2014). The importance and fragility of these ecosystems make it imperative to develop a sound understanding of their function, conservation dynamic, and socio-economic process. According to SERNANP, local communities are strategic allies in conservation actions and protected area sustainability, and active participation in protected area management is an essential factor for the national system's objectives to be accomplished (DS-010-2009-MINAM, 2009). The Regional Government of Loreto has also recognized the role of local communities in the protected area regional system (PROCREL, 2014).

Failing to include these communities in tourism development would limit its sustainability and diversification, as well as increases potential conflicts with local communities (Andries et al., 2021). Communities displaying substantial socio-ecological capital are more likely to offer a more suitable tourist product - sufficiently preserved natural landscape - and because of their experience in natural resource management, they are also more likely to better coordinate and conduct complex tourism operations. To understand the nuances of socio-ecological capital, I will use the case of the community of El Chino, Tahuayo River, Loreto, in the Peruvian Amazon.

CBT in the Peruvian Amazon: Community of El Chino, Tahuayo River, Loreto - Peru

The community of El Chino is located in the upper Tahuayo river basin, a small blackwater tributary of the Amazon River that originates within the Amazon River floodplain (Chirif, 2012). The population fluctuates between 50-52 households, and approximately 330 people (Isasi-Catalá et al., 2016), constituted primarily by riverine settlers (Chirif, 2012). This community has conducted wildlife co-management since the early 90s, via community agreements, rules, and strong collaboration with the government and NGOs (Chirif, 2012; Puertas & Bodmer, 2000). The community is located in the buffer zone of the Tamshiyacu-Tahuayo Regional Protected Area, established in 2009. This protected area was the result a collective effort from a group of communities in the upper Tahuayo River basin; El Chino was the community leading this process (ACRCTT, 2017; Chirif, 2012; GORE - LORETO, 2015; Puertas & Bodmer, 2000).

Organization of the operation

At this moment, there are five families providing tourism services (hosting, tours, and transportation), they organize the trip and provide all the services (meals preparation, hosting, tours, guide, transportation). Only one of them is registered at the Regional Office of Tourism: Tahuayo's Home Lodge, own by the Soplin Family. The services provided by all the families are rural, small-scale, and the infrastructure they have covers the basic amenities for a tourist (Fig 4).

For community-based tourism to work it needs a robust breeding ground. Referring specifically to tourism, it's linked to the state of the natural landscape, which at the same time depends on the state of the organization in the community and compliance with the norms and rules pertinent to natural resource management, that is the communal conservation governance. Social capital can be expressed in different ways (McGehee et al., 2010; Ostrom & Ahn, 2003; Putnam, 2001), one of them is how the community is organized, and decision-making capacity and dialogue are supported and managed. El Chino displays sound governance, with a communal assembly that informs and decides collective matters, with a President and vice-president, and other authorities such as "Teniente Gobernador" and "Agente Municipal" periodically and democratically elected. There are also local groups responsible for various topics (school, meal preparation, handicraft, tourism, patrolling, fishing, etc.), including a natural resource management group and a patrolling group; both are part of the Management Committee of the Tamshiyacu-Tahuayo Regional Protected Area.

Trust

Social capital encompasses, among other components, relationships of trust, which are necessary resources for shaping and facilitating collective action to achieve positive biodiversity outcomes (Ostrom & Ahn, 2003; Pretty & Smith, 2004). Trust is fundamental for healthy relationship between stakeholders (Moscardo et al., 2017). El Chino has sustained long-term partnerships with outside members of the community, and is committed to deliver tourism products and experiences, which builds on previous conservation initiatives with NGOs, local, regional and national level government (Chirif, 2012; Puertas & Bodmer, 2000; USAID, 2016). Thus, a community with ongoing partnerships, and agreements with external stakeholders represents a positive setting for tourism development. This demonstrates that trust is not something that is given, but gained throughout interactions and experience in collaborating.

Tourism services and products provided at El Chino, Rio Tahuayo – Loreto, Peru. [Fig. 4]

Smart partnerships as an important component for tourism development

Another element facilitating tourism operations is having diverse set of partnerships - bridging and bonding social capital (Bodin & Crona, 2008; Mathews, 2021). New information and opportunities are introduce by partnerships from outside the community, while bonding capital represent the relationships inside the community, their strength and unity. The presence of NGOs, researchers, tourism operators, drifter tourists, and the government provided a rich environment for community-based tourism to bloom. The families conducting tourism in the community of El Chino maintain a diverse set of partnerships with local tourism brokers in Iquitos city, and other members of the community to strength their activities. A community with sustained and long-term partnerships, has experience in collaboration, shared learning and trust-building (Baggio, 2011; Kainer, 2016).

Environmental, social and governance considerations

Experience in natural resource management reinforces the importance of collective efforts to sustainably use and access natural resources. At El Chino this is manifested via the establishment and operation of several groups in the community, which offer a positive context for tourism development. The community has a long-term commitment to protect and sustainably use the natural resources of the area. For 38 years, starting in 1984, the residents of El Chino have sustained and adapted a formalized a set of decisions to exercise greater control over hydrobiological resources, confirmed in their communal assemblies, and carried out via a series of collective actions. This management system consists of a set of rules, vigilance and

monitoring mechanisms, sanctions for transgressors, and taxes on the commercial extraction of natural resources (Pinedo et al. 2000).

These efforts were formally recognized by The Loreto Regional Environmental Authority (ARA) through the Sanctioning Administrative Procedure (PAS) for the regional protected areas approved by Regional Management Resolution 40-2021-GRL-GGR-ARA LORETO. The norm guiding the procedure to recognize the Local Surveillance Organizations (OLV in Spanish), and the procedure to recognize community patrollers is the Directive 001-2017-ARA, approved by Regional Management Resolution 007-2017-GRL-GGR-ARA Loreto (Rodriguez, 2021). Thus, communities living nearby regional protected areas in Loreto have governmental support for their natural resource management actions. This is a significant step towards empowering communal efforts, and bottom-up processes in conservation governance (Espeso-Molinero & Pastor-Alfonso, 2020).

LIMITATIONS AND CHALLENGES

Origin partner

We are adopting the term of origin partner more commonly used in the coffee and cacao industry to refer to local producer from a specific destination or locality, this also carries certain sustainability considerations of the coffee or cacao. The “product” for tourism in nature-based destinations such as the Amazon includes the natural, social, and cultural phenomena associated with its conservation and sustainable management. However, unlike some products, it is challenging to determine the “origin partner.” In the case of community-based tourism, origin partner illustrates a community with strong social-ecological capital.

For a private investor, it can be difficult to identify what communities are better suited for a tourism venture, and which are not. Thus, taking into consideration the previous statements regarding socio-ecological capital can provide some light in identifying a “origin partner” for a CBT operation.

Furthermore, a community is a complex and varied group of people. While some families or individuals may go into tourism, that does not mean all families or individuals want or should participate. Thus, the most suitable course of action is to have communal consent; they accept the activity as a community and then identify the families or individuals willing to work in tourism specifically. The adequate space to do this is in a Communal Assembly; this addresses many issues: to inform and obtain consent, transparency, ways to engage, who is working in tourism, compensations, and other topics or concerns that may arise in the assembly. It is not beneficial or strategic to assume a community is a simple group; to recognize its complexity aids to layout the foundation of a long-term partnership and good quality service.

Regulations & formalization

Currently there is no database that documents communities conducting tourism and the services they provide, nor are there regulations allowing communities to formalize their tourism activities. The Ministry of Tourism of Peru approved in 2016 a five-year plan to formalize the tourism sector, as informality undermines its development and access from tourists to a fair and formal services (MINCETUR, 2016b). In this plan however, rural and riverside communities are not included, thus, lack of proper regulations and formalization weakens governance and participation of private investors, local communities and civil organizations. Additionally, the lack of recognition of the particular context of the Amazon (remoteness, cultural diversity, tourism dynamic, fragile ecosystem, access to information, etc.) increases the gaps for rural communities to formalize their operations.

Infrastructure

Infrastructure that supports tourism relies on state planning and investment in roads, health, environment, technology and communications (Daries et al., 2021). In the case of the Amazon, this investment tends to be poor and inadequate. In recent years the whole Amazon Basin – including the Peruvian Amazon – has been mired in controversy over the validity and impacts of so-called economic development strategies. Rather than promoting local development strategies such as community-based tourism, national governments have often envisioned infrastructure projects as a way to easily achieve development, which is conceptualized as economic expansion. In practice, these projects pose threats for the ecosystems, rural communities and biological diversity (Perz et al., 2020). Large-scale, externally-driven infrastructure projects are usually accompanied by cumulative or direct impacts on the local communities and environment, since they enable access of outsiders to land and primary forests, and consequent deforestation and land degradation and loss of biological diversity (Arima et al., 2005; Porter-Bolland et al., 2012).

OPPORTUNITIES FOR LATIN AMERICAN BUSINESS ENVIRONMENT

Public policies: Economic or tax-related Incentives

State-based actions can promote private investment in remote regions, such as the Amazon. Policies and program can be designed to provide financial support and opportunities, and to influence and work with agencies currently conducting tourism in those regions. One example of an economic incentive comes from the Department of Tourism, Republica of South Africa in 2008 they installed a reimbursable cash grant aiming to support or strengthen private tourism enterprises who partnered with local communities (Tourism Incentive Programme - Department of Tourism, n.d.). Such grants enable opportunities and shorten the gaps between rural communities and the tourism industry. The Peruvian Amazon lack of programs that targets rural communities. The state program: “Turismo Emprende” in Peru promotes micro and small business in tourism via training and financial support, however this program include formalized business only, and usually riverside communities cannot access this status due to logistic, economic and information barriers.

Capacity building

There is a lack of training programs in the tourism sector targeting local communities. As a result, processes of learning about tourism by local families arise from a casual and opportunistic exchange of information via tourists, and by trial and error. This is not an effective or efficient approach for learning and making profit. Currently, in the absence of government initiatives and training, NGOs are promoting capacity-building programs, and

supporting communities venturing in tourism. However, a long-term comprehensive approach is required for communities to continuously learn and enhance their skills.

INVESTMENT OPPORTUNITIES/PARTNERING OPPORTUNITIES/ GUIDANCE ON HOW TO OPERATE RESPONSIBLY

Latin America is a unique niche for community-based tourism:

The Amazon basin is a well-known nature-based destination that opens the door for tourism types ranging from drifter, nature-based, ecotourism, adventure tourism and other types of alternative tourist willing to explore and build new and unique experiences (Brightsmith et al., 2008; Dernoi, 1981; Diamantis, 1999; Pearce, 1992; A. Stronza, 2001; Zeppel, 2006).

Additionally, the UNWTO promotes tourism in protected areas under the classification of ecotourism (Ecotourism and Protected Areas | UNWTO, n.d.), stating that ecotourism supports maintenance protected areas by:

- ***Generating economic benefits for host communities, organizations, and authorities managing natural areas with conservation purposes.***
- ***Providing alternative employment and income opportunities for local communities.***
- ***Increasing awareness towards the conservation of natural and cultural assets, both among locals and tourists.***

Tourism has been readily adopted by many conservation practitioners, as it offers to reconcile conservation and development goals (Kiss, 2004; Meriles et al., 2007). In turn, ecotourism and related forms of tourism, including CBT, came to be associated with a grassroots strategy for rural sustainable development and conservation. Smart partnerships with local and international NGOs ensures a direct contact with communities, as some of them are using tourism as a mechanism for poverty alleviation and to achieve sustainable development goals (Kennedy & D' et al., 2009).

PLOTTING A PATH

There are rich opportunities for investors to get involved with this specific niche of tourism, and rapidly growing demand from potential tourist clients who value a personalized and direct contact with local communities and ecosystems. As a starting point, an investor can seek out a sample of communities living near a protected area who are implementing a co-management approach to identify a destination for the tourism venture. This first step will narrow the search for communities displaying robust socio-ecological capital. Second, a baseline for the business model and business plan can be developed by learning about tourism products and services offered, as well as the communal organization and families currently working in tourism if any, knowing the authorities and leaders, as well as the current tourism dynamic from local state agencies and other sources. There are many ways to approach this venture; a recommended starting point is to ask for recommendations or references of communities currently working in tourism, and then to directly visit the locations, and experience the destination, services and logistics firsthand. A sound strategy is to approach NGOs working in the community, and to follow along their working route. The NGO can introduce you at a communal assembly; this is an ideal space to minimize misinformation and know the leaders and families interested in partnering with you. Even though it may appear complex, this is the most suitable course to guarantee transparency and reasonable negotiation for all involved.

[Fig. 5] Tourists visiting Tahuayo's Home Lodge runned by the Soplin Family, Community El Chino, Tahuayo River, Loreto – Peru. Source: https://www.facebook.com/Tahuayos-Home-Lodge-815276528515239/photos/?ref=page_internal

KEY MESSAGES/HIGHLIGHTS

- *The Amazon basin represents an appropriate destination for community-based tourism development.*
- *Community-based tourism ventures is a new and innovative niche in the tourism industry for Latin America.*
- *Developing CBT products guarantees unique and specialized products.*
- *Conservation actions and community participation are significant components in community-based tourism sustainability.*
- *CBT can foster the participation of otherwise excluded communities from the tourism sector.*
- *In developing countries, informality in tourism operations undermines tourism development and quality, thus the importance of working closely with government agencies and NGOs.*
- *The lack of policies in tourism lays the foundations for poor and inadequate infrastructure, elevated informality, and uneven distribution of tourism resources and opportunities.*
- *A participatory process should ensure fair and transparent negotiations.*
- *A business model and business plan must incorporate community involvement to avoid socio-environmental opportunism, greenwashing, and pseudo-ecotourism.*

REFERENCES

ARCTTT, Comité de Gestión del Área de Conservación Regional Comunal Tamshiyacu Tahuayo. (2017). Plan Maestro Area de Conservacion Regional Comunal Tamshiyacu Tahuayo y su zona de influencia: 2017-2021 (p. 88).

Andries, D. M., Arnaiz-Schmitz, C., Díaz-Rodríguez, P., Herrero-Jáuregui, C., & Schmitz, M. F. (2021). Sustainable tourism and natural protected areas: Exploring local population perceptions in a post-conflict scenario. Land, 10(3). https://doi.org/10.3390/land10030331

Arima, E. Y., Walker, R. T., Perz, S. G., Caldas, M., Arima, E. Y., Walker, R. T., Perz, S. G., & Caldas, M. (2005). Models of Road Building in the Amazon Basin. Annals of the Association of American Geographers, 95(3), 525–541. https://doi.org/10.1111/j.1467-8306.2005.00473.x

Asker, S., Boronyak, L., Carrard, N., & Paddon, M. (2010). Effective Community Based Tourism. In Apec Tourism Working Group (Issue June).

Baggio, R. (2011). Collaboration and cooperation in a tourism destination: A network science approach. Current Issues in Tourism, 14(2), 183–189. https://doi.org/10.1080/13683500.2010.531118

Berkes, F. (2007). Community-based conservation in a globalized world. Proceedings of the National Academy of Sciences of the United States of America, 104(39), 15188–15193. https://doi.org/10.1073/pnas.0702098104

Bodin, R., & Crona, B. I. (2008). Management of Natural Resources at the Community Level: Exploring the Role of Social Capital and Leadership in a Rural Fishing Community. xx(x). https://doi.org/10.1016/j.worlddev.2007.12.002

Brightsmith, D. J., Stronza, A., & Holle, K. (2008). Ecotourism, conservation biology, and volunteer tourism: A mutually beneficial triumvirate. Biological Conservation, 141(11), 2832–2842. https://doi.org/10.1016/j.biocon.2008.08.020

Chirif, A. (2012). La Historia del Tahuayo contada por sus moradores (Wildlife Conservation Society (WCS), Ed.; Primera Ed).

Clarke, J. (1997). A framework of approaches to sustainable tourism. Journal of Sustainable Tourism, 5(3), 224–233. https://doi.org/10.1080/09669589708667287

Dangi, T. B., & Jamal, T. (2016). An integrated approach to "sustainable community-based tourism." Sustainability (Switzerland), 8(5). https://doi.org/10.3390/su8050475

Daries, J., Jaime, V., & Bucaram, S. (2021). Evolución del turismo en Perú 2010-2020, la influencia del COVID-19 y recomendaciones pos-COVID-19. Banco Interamericano de Desarrollo, 78. https://publications.iadb.org/publications/spanish/document/Evolucion-del-turismo-en-Peru-2010-2020-la-influencia-del-COVID-19-y-recomendaciones-pos-COVID-19-nota-sectorial-de-turismo.pdf

Dernoi, L. A. (1981). Alternative Tourism. International Journal of Tourism Ma, 11(4), 253–264. https://doi.org/10.1016/0160-7383(84)90058-6

Ecotourism and Protected areas | UNWTO. (n.d.). Retrieved March 7, 2022, from https://www.unwto.org/sustainable-development/ecotourism-and-protected-areas

Espeso-Molinero, P., & Pastor-Alfonso, M. J. (2020). Governance, community resilience, and indigenous tourism in Nahá, Mexico. Sustainability (Switzerland), 12(15). https://doi.org/10.3390/su12155973

Goodwin, H., & Santilli, R. (2009). Community-Based Tourism: a success? In ICRT Occasional Paper (Issue 11, pp. 1–37).

GORE - LORETO. (2015). Plan Maestro del ACR Comunal Tamshiyacu Tahuayo 2010-2015. https://www.google.com/

Assessing pathways to prosperity for rural communities: the case of aguaje (Loreto, Peru)

Raine Donohue[1]; Claudia Romero[2]

MA Sustainable Development Practice, University of Florida [1]
rainedonohue@gmail.com

PhD, MSc, Research Scientist & Courtesy Assistant Professor, Department of Biology, University of Florida [2]
romero@ufl.edu

LOCATION

Loreto Region, Peru

CASE STUDY

Aguaje fruit (*Mauritia flexuosa*)

INNOVATION

Superfoods project aiming for responsible harvesting of aguaje (e.g., climbing the tree instead of felling the tree) to **replace a previously destructive economic activity** with an environmentally responsible source of income, especially for marginalized communities where other productive activities are not feasible

MAIN LIMITATIONS

Lack of both efficiency and effectiveness on behalf of government institutions, due to political agendas motivated by self-interest and limited state presence in rural areas

MAIN CHALLENGES

The principal bottlenecks and challenges for sustainable aguaje production are related to poor **infrastructure** in the region

KEY LESSONS LEARNED

Greater roles and responsibilities of non-governmental institutions to **fill gaps and build capacity in rural communities** and facilitate **interactions between state, private, and community actors**

keywords:

- AGUAJE
- VALUE CHAINS
- GREEN VALUE TOOL®
- PRIME
- DEFORESTATION
- FOREST PROTECTION

ABSTRACT

The growing global demand for high quality, ethically sourced goods presents opportunities for socioeconomic development, but close attention needs to be paid to environmental and social impacts on the local producing populations and their natural resource base. This study provides an analysis of the *Superfoods for Forest Protection* project for aguaje (*Mauritia flexuosa*) in the Peruvian Amazon using the *PRIME* conceptual framework and the *Green Value Tool®* to assess constraints, barriers, and values of forest conservation as a pathway out of poverty. This case study provides an example of how the public and private sectors are working together to localize and address regional development challenges. The resulting recommendations include improving regional infrastructure, facilitating community capacity building, establishing purchase agreements based on seasonality, and incorporating investments from the carbon credits market to offset production costs.

KEY MESSAGES

1. Need to **strengthen relationships** between actors across sectors
2. Establishing networks which **improve social capital** and build community capacity prioritized
3. **Green Value Tool®** used to understand an enterprises' financial situation and resiliency
4. *PRIME* framework used to **identify strengths and barriers** for sustainable value chains growth
5. Need for **businesses to balance market** demands with environmental and social well-being

Check out the complete Latin American Business Environment Report released in 2022

INTRODUCTION

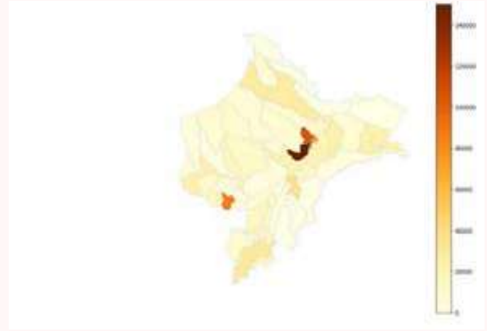
The market for *superfoods* has grown significantly over the past decade. Although a consensus has yet to be reached on a precise definition of superfoods, they generally have three predominant characteristics: superior nutritional properties, little technical intervention to alter their qualities, and association with indigenous groups and traditional production practices (Magrach & Sanz, 2020). Their increased popularity stems from growing awareness of their high nutritional qualities and energy-generating properties. While they may be novel items to the global community, often in their regions of origin these foods have been consumed for hundreds of years for nutritional or ceremonial purposes (Magrach & Sanz, 2020). **As the global demand for superfoods continues to grow, close attention needs to be paid to the environmental and social impacts of this market on the local producing populations and their natural resource base.**

The superfoods market has the potential to become a viable development path/option with the dual purpose of increasing income for rural populations and creating economic incentives to preserve the conditions that favor biodiversity. In responding to global demand, a fine balance between prevention of environmental degradation and assurance of socio-economic benefits for communities must be achieved (Richards, 1993). **The goal of this study is to assess progress towards sustainable livelihoods and management of natural resources for producers and others participating in a specific superfood enterprise, while also providing more general recommendations for equitable distribution of socio-economic and environmental benefits of non-timber forest product (NTFP) value chains.**

[Fig. 1] | Aguaje (*Mauritia flexuosa*)

The ***aguaje* fruit (*Mauritia flexuosa*) is an exemplary case of an up-and-coming superfood.** *Aguaje* ecosystems (*aguajales)* constitute six million hectares of forest in the Amazon region (del Castillo et al., 2014). *Aguaje* is highly valuable for three key reasons. First, the fruit contains approximately five times as much vitamin A as is found in any other commonly consumed foods (del Castillo et al., 2014). Second, it is an essential food source for wild animal populations in the rainforest (del Castillo et al., 2014). And lastly, *aguaje* ecosystems play a crucial role in climate change mitigation; one hectare of *aguaje* forest stores approximately 600 tons of carbon (Draper et al., 2014).

Aguaje palm trees are the most abundant and economically important palm in the western region of the Amazon, and typically grow in swampy habitats which cover nearly three million hectares in Peru alone (Penn, 2008). Each tree can produce about 290 kilograms (640 pounds) of fruit each year (del Castillo et al., 2014). In rural communities *aguaje* fruits are consumed regularly and are renowned for their high nutritional value (Morrison, 2020). In the urban center of Iquitos, Peru, with a population of about 500,000 people, approximately 20 to 50 tons of *aguaje* are consumed daily in various forms ranging from ripe fruits, pulp, juices, popsicles, ice creams, jelly, and yogurt, to various cosmetic products (del Castillo et al., 2014). It is estimated that 17,000 female *aguaje* palms are cut down in the region surrounding Iquitos annually in order to meet the demand for current *aguaje* consumption (del Castillo et al., 2014). **Due to an increasing demand for the fruits, *aguaje* trees are cut down at an astonishing rate. Out of concern for the dwindling *aguaje* populations and the loss of environmental services and local income, NGOs and regional government initiatives have focused on promoting ways to harvest the fruits without cutting down the trees.**



[Fig. 2] | Spatial distribution of population in the Loreto Department, Peru. Population density is highest around the urban center of Iquitos. (Hausmann et al., 2020)

Whole aguaje fruit. | [Fig. 3] (Donohue 2021)

One initiative between the U.K.-based organization *Partnership for Forests* (P4F), U.S.-based non-profit *Earth Innovation Institute* (EII), and the private Peruvian company AJE group (AJE), is building on *aguaje*'s superfood potential to tackle the dual challenge of generating a source of responsible income for rural populations in Peru's Loreto Department and protecting the natural resource base on which this value chain depends. AJE is currently the only purchaser in the region that requires verification of the sustainable harvest of *aguaje* palm fruits (i.e., zero deforestation). The roles and responsibilities of these key actors and their local partners is shown in Figure 4 below.

For the Field Practicum in the Master of Sustainable Development Practice at the University of Florida, the first author partnered directly with *Earth Innovation Institute* to conduct this research, and they served as a bridge organization to connect with other stakeholders in the region. The following sections elaborate upon the socio-economic and environmental context of the Peruvian Amazon, the objectives of this study and EII's work, the study results, cross-scale, cross-discipline and policy considerations, and insights and recommendations for the business sector in Latin America.

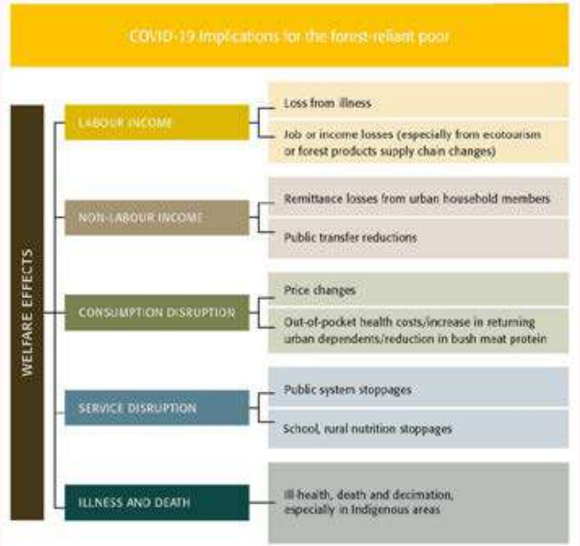
Overview of the aguaje supply chain and interactions among the entities involved. [Fig. 4]

CONTEXT

Peru covers a total area of 129 million hectares and has a population of 33 million people (CIA, 2021). It is the fourth largest tropical forest nation in the world: 69 million hectares that store over 30 billion tons of carbon (Draper et al., 2014). The global COVID-19 pandemic has had a devastating impact on Peru. The strict and enduring lockdowns since May 2020 have caused an 11.1% drop in the country's GDP, and the employment rate dropped by 20% from April to December of 2020. (TheWorldBank, 2021).

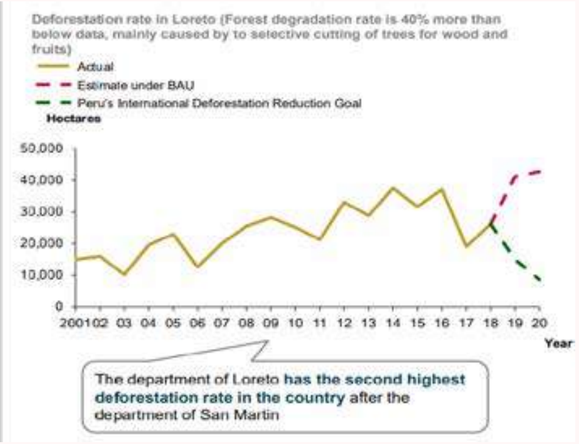
The Loreto Department in the Peruvian Amazon is a critical region due to its large expanse of intact forests, carbon stocks, and biological and ethnic diversity. This region is home to the largest Indigenous population in Peru (P4F, 2020). Due to exploitation of numerous resources existing in this region, Loreto has the country's second highest rate of deforestation, which has been linked to a lack of alternative income-generating opportunities in the region (Hausmann et al., 2020).

Loreto is characterized by many of the same challenges that the country faces. Poverty is prevalent in both urban and rural areas, and unsustainable resource use is demonstrated by the reduction of biodiversity, the expansion of oil palm plantations, logging and timber production, and illicit activities such as illegal logging, mining, and the cultivation of coca (Chirif, 2019; P4F, 2020).



Implications for the forest-reliant poor from COVID-19 (Shyamsundar et al., 2020), adapted from the World Bank 2020 [Fig. 5]

Much of the illegal activities occur in unprotected forests and remote areas, such as the Amazon, where systems of authority and protection are lacking. The Peruvian Agricultural Census of 2012 stated that 45% of the total number of farmers in the country did not have a land title, the majority of which are situated in the Andean and Amazonian regions.



[Fig. 6] | Yearly rate of deforestation in Peru, estimated deforestation under a "business-as-usual" (BAU) scenario, and the country's deforestation reduction goals (P4F, 2020).

Over the past two decades, Peru has prioritized the strengthening of its institutions to address these country-wide challenges. In 2005 Peru adopted the *General Environment Act* and created the *Ministry of the Environment* (MINAM), the *Peruvian National Protection Areas Service* (SERNANP), the *National Service of Environmental Certification for Sustainable Investments* (SENACE), and the *Agency for Environmental Assessment and Enforcement* (OEFA). According to the OECD, in order to make substantial progress, policy makers, development experts, and private entities in Peru need to emphasize an inclusive path of economic growth that prioritizes the sustainable use of resources and the equitable distribution of benefits (OECD, 2016). One of Peru's greatest challenges is to balance this need for economic growth and the sustainable use of the country's natural resources.

CASE STUDY DESCRIPTION

With the aforementioned challenges in mind, *Earth Innovation Institute* searches for novel ways to combat generational poverty and cycles of environmental degradation. Utilizing the private sector's growing interest in deforestation-free production, the objective of EII's work in Peru is to strengthen and expand public-private partnerships through the design and implementation of development strategies that reduce deforestation, increase agricultural productivity, and foster economic development (EII, 2021). It does so through its "Production-Protection-Inclusion" (PPI) approach.

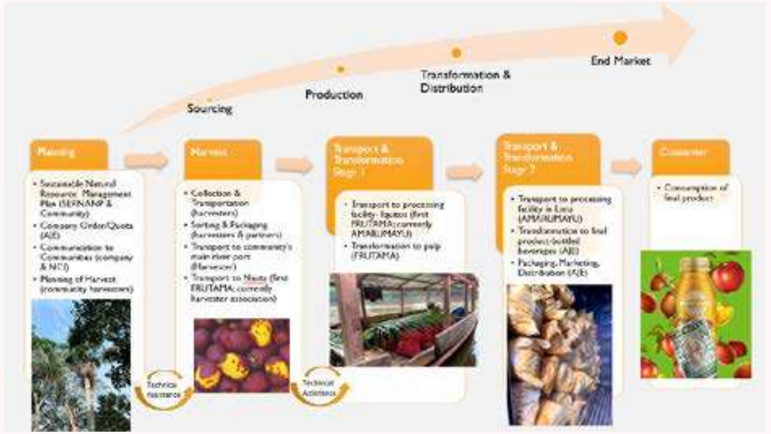
The *Superfoods for Forest Protection*, or *Superfoods,* project brings together resources and knowledge from different sectors to invest in sustainable community forestry and explore income generating alternatives for rural communities. The *Superfoods* project began as a pilot in 2016 and is now in a scale-up and expansion phase. Its goal is to generate alternative sources of income for 22 forest-reliant communities while conserving the resource base upon which these communities rely.

The analysis of this initiative was conducted using the *PRIME* framework and the *Green Value Tool®*. *PRIME* (Productivity, Rights, Investment in Institutions, Markets, and Ecosystem Services) offers to assess issues related to prosperity in an actionable way that moves the conservation and development agenda forward (Shyamsundar et al., 2020). The *Green Value Tool®* is a simplified financial analysis tool that uses production data to calculate the revenue of small and medium-sized forest enterprises (SMFEs), with the goal of facilitating informed decision making and adaptation (GreenValueTool, 2021).

Overview of the initiative

Sustainable harvesting and processing of the *aguaje* palm fruit is at the center of this project's activities. Community members collect *aguaje* palm fruits and sell them to a pulp processing facility (FRUTAMA), which in turn sells the pulp to a beverage company AMARUMAYU (owned by AJE group), which performs the final transformation from pulp to finished product, and markets and distributes the nutritional drink at the national level. The details of this value chain are depicted below in Figure 8. *Earth Innovation Institute* provides financial and general project oversight, while two other NGOs, *Nature & Culture International* (NCI) and *Amazónicos por la Amazonía* (AMPA) provide technical assistance and facilitate communication and logistical planning between AMARUMAYU and the participating rural communities.

Ripe aguaje fruits. (Morrison 2020) | [Fig. 7]



[Fig. 8] Aguaje Value Chain Analysis from point of origin in rural communally managed forests to final bottled beverage product.

Innovations

The harvest and sale of *aguaje* in rural Amazonian communities in Peru is not a new activity, nor a new source of income for these forest-reliant people. However, within the ***Superfoods* project, the requirement for responsible harvesting of *aguaje* (e.g., climbing the tree instead of felling the tree) has replaced a previously destructive economic activity with an environmentally responsible source of income, especially for marginalized communities where other productive activities are not feasible.** Harvesting the fruits by climbing the tree allows for the complete economic exploitation of this resource. Research shows that instead of a one-time collection of three to four panicles of fruit from cutting the tree, harvesters can collect eight panicles of fruit each year, for the entire life cycle of the tree (approximately 30 to 40 years), permitting "communities to obtain steady income and improve their quality of life" (del Castillo et al., 2014, p. 41). The direct access to a specialized market and the stable prices that collectors have through their agreement with the company *AJE* generates income stability for their communities.

There is resounding confidence among harvesters, NGOs, state actors, and private entities that the market potential for *aguaje* is increasing (Donohue, 2021). While the challenge of spurring international demand remains, the local and national markets continue to grow. Diversifying the product profile from derivatives of *aguaje* is already occurring and helping to sustain the demand for the fruit. Noticeable changes in the market are already being observed with a shift from the traditional consumption of raw fruits and juices to an expanding demand for all processed forms of *aguaje* (e.g., juice, ice cream, cosmetic products, etc.) (Guzman, 2004). Additionally, international markets are moving towards organic, sustainably sourced goods that support community initiatives. This leaves *aguaje* well-positioned for this growing demand.

ENVIRONMENTAL, SOCIAL, AND GOVERNANCE CONSIDERATIONS

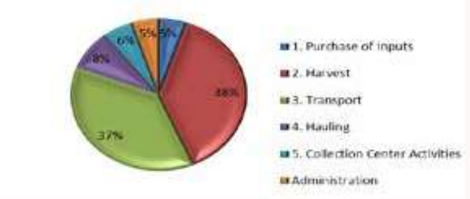
The **environmental considerations** for this project are twofold. *Aguajale*s store significant carbon per hectare (532 to 631 tons of carbon per hectare) and have both high direct and indirect use values (Guzman, 2004). Conserving forest assets is one way of improving economic opportunities while simultaneously preserving biodiversity and the environmental services provided by intact ecosystems. This is especially important considering the scarcity of fruits that occurred at the time of data collection for this study. Two principal explanations have been given for this scarcity: changing temperatures resulting from climate change, and poor forest management practices which have diminished the number of female fruit producing trees and the genetic diversity of fruit bearing trees present in the forests (Gilmore et al., 2013). The *Superfoods* project seeks to enhance ecosystem services and mechanisms based on ecosystem service-provision that could benefit poor populations. Responsible *aguaje*-based activities appear to have multi-scale benefits in terms of continued provisions of ecosystem services for the Amazon region and mitigating the impacts of climate change for the global community.

The **social implications** are another strong suit of this project. Several studies have presented evidence that "developing social capital represents one of the ways in which development agencies can engage in capacity-building to achieve social and environmental objectives" (Baynes et al., 2015). According to project participants, the work being carried out by NCI and AMPA within the communities have been crucial for its successes to date. Communities have benefited from capacity building in organization, business, and financial management, especially in these remote regions where the presence of government institutions is lacking.

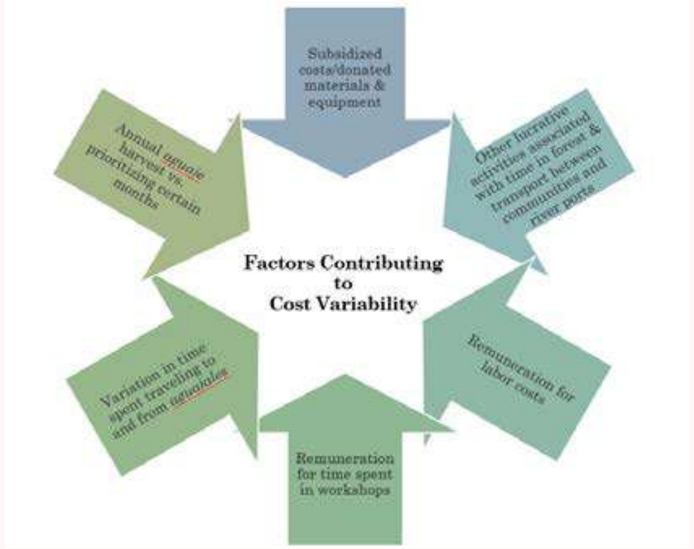
This study also identified a lack of both efficiency and effectiveness on behalf of government institutions, due to political agendas motivated by self-interest and limited state presence in rural areas (Chirif, 2019; Donohue, 2021). As a result, other institutions, such as NGOs, have taken on greater roles and responsibilities. They attempt to fill gaps and build capacity in rural communities and facilitate interactions between state, private, and community actors. They strive for participatory and inclusive decision-making processes. These NGOs have been key players in building the relationship between AJE and the community *aguaje* associations, assisting with logistical planning, providing equipment for responsible harvesting, ensuring that harvesting is carried out in accordance with the company standards, and providing training on organizational and financial management. **While the state institutions may be comparatively weak within this region, NGOs have taken on the responsibility to fill this role and have become credible actors within the region, reinforcing trust with local communities and adopting new governance approaches.**

Results

Results from the socio-economic analysis using the *PRIME* framework and the *Green Value Tool*® indicate the following. **First**, the principal bottlenecks and challenges for sustainable *aguaje* production are related to poor infrastructure in the region. **Second**, the set price paid to *aguaje* harvesters by AMARUMAYU does not cover the full cost of production when taking into account the cost of labor and materials. **Lastly**, the benefits of *aguaje* production are two-fold: the economic benefits of income generated from the sale of the fruits, and incentivizing the conservation of the environmental services provided by *aguaje* ecosystems and the carbon stocks they contain. The distribution of the proportion of cost per activity is shown in Figure 9. Additional factors that may affect cost variability, and are relevant for analyzing these results, are presented in Figure 10. Recommendations to ensure the economic viability, environmental conservation, and social benefits of *aguaje* production can be found in the following sections.



[Fig. 9] Proportion of total cost of production per activity.



[Fig. 10] Supplemental factors that may contribute to cost variability of aguaje based on the financial analyses conducted during this study.

LIMITATIONS AND CHALLENGES

There are several key limitations and challenges that were identified during this case study. These challenges can be addressed through two lenses. First are those that pose important considerations for assessing the study's findings. These include the instability resulting from the COVID-19 global pandemic and the inconsistent sale of aguaje to AJE over the past two years. This influenced the numerical values generated from the financial analysis, as well as participants' overall perspective of the project. Additionally, at the time of the study, the region was experiencing a shortage of aguaje fruits, something which does not typically occur, but that influenced participants' ability to generate income through the sale of aguaje.

Second are the factors identified that may pose challenges to future successful work in this market environment and this geographic region. These factors include impacts from climate change which are affecting fruit production and quantities available. The remote location in which aguaje production takes place is another factor for consideration. The distances required to transport products and the limited means of communication between rural producer communities, NGOs, and private companies complicates logistical planning.

In addition, many government policies are geared towards extractive industries and do not facilitate or incentivize programs that promote sustained long-term economic growth, which results in detrimental impacts on rural populations and the environment (Chirif, 2019, p. 14). Due to a limited state presence in rural areas, and a history of conflicts in regional politics, the role of government institutions should be well-defined and transparent. This study did not identify many government officials who appreciate the extent to which ecosystem preservation provides environmental and economic services. Nor did it encounter government recognition of benefits offered through forest conservation in terms of carbon storage, and as viable productive systems for natural resources, when managed sustainably, and to provide income for rural populations.

OPPORTUNITIES FOR BUILDING AND GOING BEYOND THIS CASE

The application of the *PRIME* framework and the *Green Value Tool*® for this case study provide the communities and supporting entities with important, data driven insights that they can use to define their own indicators and assessment criteria for project success, and envision important measures to undertake (Baynes et al., 2015). To date, AJE is the only private company requiring verification of the sustainable harvest of *aguaje* fruits. Much of the market is still dominated by middlemen who have no incentive to verify where *aguaje* is sourced or the practices used to harvest the fruits. Furthermore, the price for sustainably harvested *aguaje* is the comparable (or in some cases lower) than conventionally harvested *aguaje* (i.e., felling the trees). Many of the bottlenecks and challenges for *aguaje* production identified in earlier studies (such as lack of regular transportation, the high cost of transportation, the high number of middlemen dominating the market, and environmental threats) continue to dominate this sector nearly twenty years later (Guzman, 2004).

In this context, **a variety of market-based solutions should be considered to address the aforementioned challenges and to generate opportunities and economic resources for rural communities** (Pokorny et al., 2012). This is especially true in the case of *aguaje*, where the price paid to harvesters does not reflect the direct value of the fruit or other indirect aspects of its economic value (Guzman, 2004). First and foremost, AJE could pay a higher price per unit for *aguaje* fruits, or set a price floor but allow the price to climb when the market prices increase. Second, AJE, the regional government, or the supporting entities could examine options for reducing the cost of transportation. The cost of gasoline and oil is one of the most expensive inputs, thus subsidizing a portion of the costs could make a difference in the rate of return for the individual producer. For example, solar powered canoes could be researched in terms of their capacity to haul heavy cargo as an alternative to gasoline powered canoes, since some communities already contain the infrastructure for solar panels. In addition, while this may incur additional logistical costs and planning from the onset, improved community storage capacity could reduce the number of trips to the river port city, thus decreasing transportation costs.

These are just several recommendations that could help cut the costs of production and improve the long-term financial viability of *aguaje* production. This study provides a better understanding of the complexities present within the context of *aguaje* production and produces specific indications for which challenges and bottlenecks should be examined to improve project outcomes, and progress towards regional development agendas, which will ultimately be determined by local initiatives. Additional recommendations are included in the following table.

Table 1. Summary of key insights and recommendations to address the observed issues and bottlenecks within the *aguaje* Superfoods initiative. Actors who may have the know-how or resources available to implement each recommendation are identified as "Entity Responsible."

INSIGHT/ RECOMMENDATION	OBSERVATION/ISSUE ADDRESSED	ENTITY RESPONSIBLE
Explore economic opportunities within Carbon Markets	*Incentivizes forest-reliant communities to conserve forests by generating income by practicing zero-deforestation*	*P4F, EII, regional government*
Invest in reliable renewable energy sources in rural communities	*Challenges associated with lack of infrastructure (i.e., electricity, potable water); this will facilitate the ability to tackle other challenges*	*Regional government and/or international investment fund for mitigating climate change*
Invest in portable cable systems, solar powered canoes, inter-communal boats, and subsidizing the cost of gasoline	*Addresses the lack of infrastructure and high physical and economic costs of aguaje harvesting and transportation*	*Regional government and/or AJE*
Install refrigerator systems	*Installation of refrigerator systems in community and/or on boats lengthens the life span of aguaje fruits and reduce risks associated with loss of product quality*	*AJE*
Streamline formalization process to reduce the time and complexity of the approval process	*Efficient procedures enacted to reduce the time required to formalize community associations and sustainable practices*	*Regional government*
Encourage aguaje incorporation into agroforestry systems	*Provides additional income and reduces the time and cost required to travel to aguajales; can contribute to preservation of aguajales*	*Harvesters*
Establish Harvester Insurance Policy	*Addresses the risks involved in aguaje production and the financial burden of injury*	*AJE and/ or Harvester Association*
Facilitate capacity building and training so that all community members can benefit from aguaje production	*Addresses the low number of women participating in productive activities and creates opportunities by building new skills*	*NCI or other supporting entity*
Marketing campaign to change perception of aguaje consumption	*Helps insure sustained demand and market expansion*	*AJE*
Negotiate a new stable price, or price floor, for aguaje	*Improves income for rural communities and reasonably reflects the direct and indirect use value of aguaje*	*Harvesters, NGO, AJE*
Establish purchase agreements/schedules that prioritize selling to AJE only when aguaje quantities are high and market price is low	*Prevents economic losses associated with selling to AJE when market price is much higher than set price; allows associations to sell to middlemen for higher prices*	*Harvesters, AJE*

OPPORTUNITIES FOR LATIN AMERICAN BUSINESS ENVIRONMENT

The results from this study show low levels of attention to date on sustainable forest activities and community development in this region. In 2018, the Department of Loreto did not have any formal partnerships registered between government and private entities for economic activities focused on marketing sustainably sourced commodities, as shown in Figure 11 (Stickler et al., 2018). This finding poses an important opportunity for the private sector to take advantage of this market gap.

Public policy and strong institutions that encourage local governments to invest in rural infrastructure could greatly improve future project outcomes by reducing the cost of production and transportation, improving communication, and reducing the risks associated with sustainable value chain production by forest reliant communities.

"Finance and company-government Partnerships" depicting regions that have received climate finance or pay-for-performance climate contracts, as well as those with formal "declared" or "contracted" partnerships with companies focused on sourcing sustainably grown commodities (Stickler et al., 2018). [Fig. 11]

OPPORTUNITIES FOR INVESTMENTS, PARTNERSHIPS, AND GUIDANCE

The project itself serves as an example for the business sector as to the alternatives that exist for building ethical value chains aligned with Sustainable Development Goals. Making progress towards these goals will require diverse approaches across disciplines and sectors. According to Stickler et al., "international funders, national-level governments, the private sector and a host of other actors play an important role in supporting this progress," and "incentivizing and including Indigenous peoples, local communities, and smallholder farmers as key beneficiaries of these interventions holds promise for meeting climate and development goals" (Stickler et al., 2018).

This project has potential to amplify the benefit of AJE's business model, serving as an example for other companies or entities looking to work in the region. It is important for EII and AJE to consider how to avoid over-extraction in response to market pressure. This can be done by making sure that the aguaje market is not based solely on the extraction of the fruit, but that it also prioritizes payments for environmental services (e.g., carbon credits) that create value for intact and/or well-managed ecosystems. While more research is needed to prove their efficacy, studies indicate that carbon certification standards can provide both socio-economic and environmental benefits (Savilaakso & Petrokofsky, 2017). AJE's business model aims to use business for positive change by providing a reliable and consistent source of income for rural communities while incentivizing them to protect, conserve, and manage their natural resources in a sustainable manner. In this case, a private company has prioritized socio-economic and environmental well-being and has set a standard for enterprise development. If AJE and EII, along with the other stakeholders, can show that this business model works, it may change the business-as-usual mindset and shift market activities towards more sustainable and fair business practices. Based on the outcomes of the CoP-26 discussion in Glasgow, there will be financial support to mitigate and adapt to climate change, particularly when local communities can be involved in accountable and transparent ways. Possibly, exploration of aguaje superfoods options into carbon-credit schemes will be worth pursuing by all actors involved in the value and supply chains.

Aguaje harvesting takes place in dynamic, multifaceted forest societies where numerous factors play a role in the proposed outcomes of the *Superfoods* project. One study indicated that the strongest evidence of potential for poverty reduction comes from ecotourism, community forest management, agroforestry, and payments for ecosystem services (Hajjar et al., 2021). **Stakeholders interested in regional development should explore opportunities such as these for creating income and economic incentives for forest conservation through the expanding market for carbon credits and improving infrastructure within the region.**

KEY MESSAGES/HIGHLIGHTS

- *There is a need to strengthen relationships between actors across sectors, which may be addressed by public policies and programs, or NGOs.*
- *Establishing networks which improve social capital and build community capacity should be prioritized.*
- *The Green Value Tool® can be utilized to understand an enterprises' financial situation and resiliency.*
- *The long-term sustainability for small enterprises is especially important in remote locations.*
- *The PRIME framework can be used to identify strengths and barriers for sustainable value chain growth.*
- *Running a financially viable enterprise adds to its resilience and ability to cope with uncertainty.*
- *The ongoing success of this and similar initiatives depends on decisions by businesses to balance market demands with environmental and social well-being.*

REFERENCES

Baynes, J., Herbohn, J., Smith, C., Fisher, R., & Bray, D. (2015). Key factors which influence the success of community forestry in developing countries. Global Environmental Change, 35, 226-238. https://doi.org/https://doi.org/10.1016/j.gloenvcha.2015.09.011

Chirif, A. (2019). Peru: Deforestation in Times of Climate Change.

del Castillo, D., Otarola, E., & Freitas, L. (2014). Aguaje: The Amazing Palm Tree of the Amazon (W. H. Wust, Ed.). Instituto de Investigaciones de la Amazonia Peruana.

Donohue, R. (2021). Identifying pathways to prosperity for rural communities in the Peruvian Amazon through the PRIME framework and the Green Value Tool®. University of Florida.

Draper, F. C., Roucoux, K. H., Lawson, I. T., Mitchard, E. T. A., Coronado, E. N. H., Lahteenoja, O., . . . Baker, T. R. (2014). The distribution and amount of carbon in the largest peatland complex in Amazonia. IOP Science.

EII. (2021). Earth Innovation Institute- Regions: Peru. Earth Innovation Institute. https://earthinnovation.org/regions/peru/

Gilmore, M. P., Endress, B. A., & Horn, C. M. (2013). The socio-cultural importance of Mauritia flexuosa palm swamps (aguajales) and implications for multi-use management in two Maijuna communities of the Peruvian Amazon. Journal of ethnobiology and ethnomedicine, 9, 29-29. https://doi.org/10.1186/1746-4269-9-29

GreenValueTool. (2021). Green Value: A Tool for Simplified Financial Analysis of Forest-Based Initiatives. https://www.green-value.org/home

Guzman, C. W. (2004a). Valoración Económica de Beneficios Ambientales en el Manejo Sostenible de Humedales: Estudio del caso del Manejo Sostenible de “Aguajal” en la Comunidad de Parinari, Reserva Nacional Pacaya Samiria (RNPS). In R. L. Gonzales & E. G. Zamora (Eds.), Valoración Económica de los Bienes y Servicios Ambientales: Resultados del Segundo Programa de Becas 2002-2003 (pp. 281-314). Instituto Nacional de Recursos Naturales - INRENA.

Guzman, C. W. (2004b). Valoración Económica de Beneficios Ambientales en el Manejo Sostenible de Humedales: Estudio del caso del Manejo Sostenible de “Aguajal” en la Comunidad de Parinari, Reserva Nacional Pacaya Samiria (RNPS). In R. L. Gonzales & E. G. Zamora (Eds.), Valoración Económica de los Bienes y Servicios Ambientales: Resultados del Segundo Programa de Becas 2002-2003 (pp. 281-314). Instituto Nacional de Recursos Naturales - INRENA.

Hajjar, R., Newton, P., Ihalainen, M., Agrawal, A., Alix-Garcia, J., Castle, S. E., . . . Timko, J. A. (2021). Levers for alleviating poverty in forests. Forest Policy and Economics, 132, 102589. https://doi.org/https://doi.org/10.1016/j.forpol.2021.102589

Hausmann, R., Santos, M. A., Muci, F., Pye, J. T., Grisanti, A., & Lu, J. (2020). Diagn ó stico de Crecimiento de Loreto: Principales Restricciones al Desarrollo Sostenible (387). Harvard University.

Magrach, A., & Sanz, M. J. (2020). Environmental and social consequences of the increase in the demand for ‘superfoods’ world-wide [https://doi.org/10.1002/pan3.10085]. People and Nature, 2(2), 267-278. https://doi.org/https://doi.org/10.1002/pan3.10085

Morrison, A. (2020). Ficha Tecnica- caracteristicas minimos de las frutas aguaje y camu camu para compra y procesamiento posterior. In.

OECD. (2016). Environmental Performance Reviews: Peru 2016 - Highlights and recommendations.

P4F. (2020). P4F-0566 - Superfoods for Forest Protection: Project Concept Note.

Penn, J. (2008). Non-timber Forest Products in Peruvian Amazonia: Changing Patterns of Economic Exploitation. FOCUS on Geography, 51(2).

Pokorny, B., Johnson, J., Medina, G., & Hoch, L. (2012). Market-based conservation of the Amazonian forests: Revisiting win–win expectations. Geoforum, 43(3), 387-401. https://doi.org/https://doi.org/10.1016/j.geoforum.2010.08.002

Richards, M. (1993). The potential of non-timber forest products in sustainable natural forest management in Amazonia. The Commonwealth Forestry Review, 72(1), 21-27.

Savilaakso, S., & Petrokofsky, G. (2017). Certification system for verifying carbon trading from forestry and other land uses and their effectiveness to deliver non-carbon benefits. CAB Reviews, 12(017).

Shyamsundar, P., Ahlroth, S., Kristjanson, P., & Onder, S. (2020). Supporting pathways to prosperity in forest landscapes – A PRIME framework. World Development, 125, 104622. https://doi.org/https://doi.org/10.1016/j.worlddev.2019.104622

Stickler, C., Duchelle, A., Ardila, J., Nepstad, D., David, O., & Chan, C. (2018). The State of Jurisdictional Sustainability.

The World Bank. (2021). The World Bank in Peru: Overview. The World Bank. https://www.worldbank.org/en/country/peru/overview

Credits: Ana Violato Espada

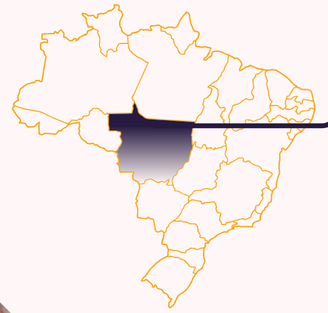
CREDIT & SOCIAL ENTREPRENEURSHIP

2

Direct marketing and microcredit to strengthen family farming

Alexandre de Azevedo Olival[1]

Núcleo de Pesquisa e Extensão em Agricultura Familiar e Agroecologia/ Universidade do Estado de Mato Grosso. [1]
aolival@unemat.br



LOCATION

Northern Mato Grosso, Brazil

CASE STUDY

Instituto Ouro (IOV); http://www.iov.org.br/

INNOVATION

IOV has been articulating **marketing and microcredit actions** to strengthen and promote the socio-environmental sustainability of **family farming** in the Portal da Amazônia region

MAIN LIMITATIONS

The low added value of the commercialized products, which usually involve little or no processing

MAIN CHALLENGES

Financial support when main resources come from government programs and private partners to subsidize its actions through non-reimbursable resources

KEY LESSONS LEARNED

The ability of rural communities to work together, resolve local conflicts, and **plan collective strategies** is at the heart of the success of any local development strategy

keywords:

- **SOCIAL ORGANIZATION**
- **FINANCING**
- **DIRECT MARKETING**
- **ECONOMIC VIABILITY**
- **AGROECOLOGICAL TRANSITION**

ABSTRACT

While international and corporate agricultural investment in the Amazon tends to prioritize intensive production of commodities such as beef and soy, family farmers are much more numerous and relevant to local food production. Family farming is an environmentally and socially critical part of the landscape, but investment and support to this sector has been lagging. The Instituto Ouro Verde has been articulating marketing and microcredit actions to strengthen and promote the socio-environmental sustainability of family farming in the Portal da Amazônia region, northern Mato Grosso, Brazil. In this document, we review the main challenges associated with the commercialization of products and financing of production, and how organizations in the north of Mato Grosso have mobilized to advance their own autonomous strategy in these areas. The case demonstrates the importance of local organization as a fundamental foundation for the consolidation of initiatives such as these. We identify investment opportunities to expand and scale these experiences, as well as strategies to increase economic viability, reduce dependence on external resources, and ensure long-term sustainability of these initiatives.

KEY MESSAGES

1 Community organization is essential for productive inclusion and agroecological **transition initiatives**

2 **Networking beyond the territory** can increase viability for both commercialization and credit

3 Commercialization and credit are strategies that must be **thought of together**

4 There are concrete possibilities for partnerships with impact investors to **scale up** these experiences

5 The case demonstrates how official credit resources can be allocated to activities that effectively change the land occupation and **regional development strategy**

Check out the complete Latin American Business Environment Report released in 2022

INTRODUCTION

Beyond producing food and profits, agriculture encompasses cultural knowledge and tradition, regeneration of landscapes and ecosystems, health, social relations, and more. These elements have been added to the food production debate in recent decades, generating discussions not only about how to produce, but also about how to guarantee a diversified production base that simultaneously contributes to the distribution of wealth, strengthening regional identity ties and conservation of the environment.

The industrial logic of the green revolution transformed rural Brazilian experiences and relationships, not only in agricultural production, but also in the transformation, distribution and consumption of food. Through economic conditions and public policies, farmers became producers of raw materials, whose products were processed by specialized industries and marketed by other companies. In this complex arrangement, farmers became distanced from consumer markets and increasingly dependent on other agents to guarantee the financial return of their production, losing autonomy in decisions about their production system. The financial return became linked to the ability to scale production through ultra specialization or serving niche markets.

The impacts of this rural development strategy are already well studied. While, on the one hand, Brazil has become one of the most important countries in the world in terms of agricultural production, the other face of this strategy raises issues such as the concentration of income and land, deforestation loss of biodiversity, rural conflicts, a decrease in the diversity of products, and the consumption of processed foods without reference of origin.

It is in this context that Instituto Ouro Verde (IOV) has been working since 2005 in the Portal da Amazônia region, in the extreme north of the state of Mato Grosso, to develop different strategies to strengthen family farming and to support the diversification of forms of land occupation. For IOV, family farmers need to be part of the regional development strategy based on their specificities, that is, based on forms of land occupation, work organization and relationship with the market that are not imposed from a homogenizing model of agriculture, landscape and social relations based on the large-scale production of commodities. The IOV considers that this requires the local organization of farmers,[1] starting in their communities and advancing to public management spaces.

From a practical point of view, the organization of farmers is based on concrete actions. IOV action strategies include the promotion of mechanisms of solidarity, reciprocity, engagement in collective actions, and political formation built through everyday experience and the joint resolution of challenges. Together with local partners, especially farmers associations and the Research and Extension Center in Family Agriculture and Agroecology/ UNEMAT, the IOV has been developing its own support mechanisms based mainly on strategies for marketing products directly to consumers (Solidarity Trading System - SISCOS) and production financing (Raiz Community Bank).

[1] The concept of organization used here goes beyond the notion of "organization for production" (formation of cooperatives or associations as the ultimate purpose of actions). It is, in fact, the strengthening of formal and informal spaces of participation at different scales, initially in the family and expanding to spaces of participation in public management.

This case study systematizes experiences of IOV and partners with commercialization and financing, discussing their advances, limitations and lessons learned. We conclude with considerations about the opportunities and strategies for scaling up these experiences to contribute to the construction of a new vision for regional development.

CONTEXT

The Portal da Amazônia Territory is a region in the north of the State of Mato Grosso known as the arc of deforestation of the Amazon rainforest. The process of large-scale occupation of the region began in the 1970s, as part of a national move to integrate what was considered an empty area into the national economy. A set of government incentives encouraged migrants, initially from the southern region of the country and, later, from other regions, to relocate to new cities that were being established with the removal of the original forest and displacement of indigenous peoples.

More than 100 settlement projects were implemented, with the settlement of more than 25,000 families in small farms. Many of these settlements resulted in the formation of new municipalities during the 1990s, making family farming intrinsically linked to the process of occupation of the region. Even today, more than 70% of rural establishments in the region are family farmers, despite the constant advance of large-scale land concentration.

Between the 1970s and 1990s, activities in the area focused on logging, mineral extraction (mainly gold), perennial crops (mainly coffee, cocoa, and guarana) and annual crops (mainly rice, beans, and corn) (Weihs et al. 2017).

In the mid-1990s, a new production cycle opened up in the region with the expansion of cattle farming (Figure 1). The move from small agriculture to ranching was driven by difficulties encountered by farmers when developing their agricultural crops, due to low access to technologies for the cultivation and processing of products, low prices charged in the region by buyers, the difficulties in transporting production to the processing and commercialization sites, as well as the absence of technical assistance and rural extension services and of social organizations formed by farmers who could contribute to overcoming the bottlenecks encountered (Olival 2016).

Given this scenario, livestock, mainly dairy, was an attractive option. The productive activity could be developed with limited financial investments, mainly through the adoption of extensive systems with low technological demand, generating an income that, although small, was regular and would provide an adequate basis for subsistence (Junior, Jang 2017). In addition to milk having an assured market, there is also strong demand for calves, so that livestock came to configure a living savings (Olival 2016). In this context, agricultural credit was made available almost exclusively for ranching, considered a low-risk activity for investment by financial institutions (Oliveira 2014).

In recent years, especially since 2012, another new cycle has been introduced in the Portal da Amazônia Territory, with the conversion of pastures to soybean monocultures (double-cropping with maize, Figure 2). These crops are raw materials for the transformation industry, integrated into agro-industrial chains destined for export.

This expansion was driven by a set of factors including improved logistics in the region (Vieira Filho 2016), the growing demand for products (Barbosa 2015), soaring commodity prices, and the high prevalence of degraded pastures in the region that opened opportunities for investment (Dias Filho 2014). The profile of rural credit has changed in recent years, increasing the importance of soybeans and reducing the share of livestock, revealing that rural credit continues to be a fundamental tool that directly influences the form of land occupation in a region (Figure 3).

In this context, family farmers are under pressure, especially due to the need for investments to reverse the advanced process of degradation of their lands and due to the lower availability of labor, given the rural exodus. The advance of soybean production not only causes changes in the agricultural landscape, but also reorganizes the service sector, reorients public policies, and worsens the land situation in the entire region, aggravating the scenario of degradation and unequal distribution of land.

Despite progress in environmental awareness and discourse, most of the investment resources in the region continue to be directed to activities with high environmental impacts, such as beef cattle and soybeans. As an example, from 2012 to 2020, while the Amazon Fund provided 60 million reais of support to sustainable development projects in the Portal da Amazônia region, agricultural credit of around 1.5 billion was provided for the production of soy and beef cattle production in the same 8 municipalities (Bacen 2021).

This discrepancy between environmentalist discourses and extractivist investments is at the heart of challenges in an agricultural frontier region where, despite all national and international mobilization for the construction of more sustainable development strategies, the industrial agricultural model advances. **A key challenge is diverting these resources to activities that support healthy changes in the land occupation and development strategy. We hope that the experience of IOV and its partners can inform and support this process.**

CASE STUDY DESCRIPTION - WHAT WAS DONE, WHAT WAS ACCOMPLISHED, RESULTS OF THE EXPERIENCE

Since 2005, IOV and its network of partners have been working to enable the construction of a comprehensive strategy to strengthen family farming in the Portal da Amazônia region. To this end, three major initiatives were developed. The first is product marketing and creating direct channels between consumers and farmers. The second is financing an individual and collective microcredit system that encourages innovations in production systems, in particular, investment in the production, transformation, and commercialization of products from agroforestry systems[2]. And the third is strengthening collective management by supporting regional spaces for the exchange of experiences and actions, consolidating existing experiences, and allowing further progress in terms of increasing autonomy and more widespread participation among groups and municipalities.

[2] The main differences between microcredit and credit systems involve the objectives and the way in which these strategies are put into operation. Conventional credit focuses on obtaining profit through the loan of large amounts, with real guarantees and interest that offset the costs of verifying and monitoring the project. Microcredit, on the other hand, has characteristics aimed exclusively at low-income populations and, more than the return on borrowed capital, microcredit systems focus on guaranteeing resources for actions to promote development in its different dimensions (adapted from Parente 2022).

These work together toward an agroecological transition, understood as a shift away from the conventional productivist agrarian model toward forms of production that better conserve natural resources and, consequently, offer more sustainability for small farmer livelihoods in the medium and long term. In these paths toward greening of agriculture, environmental and biophysical considerations take an active role in determining agrarian practices (Costabeber 1998).

A fundamental part of this strategy is developing spaces for collective management via the creation of informal community institutions to dialogue with the IOV team and to facilitate local actions. These groups, known as “local management councils,” “credit assessment committees,” or “commercialization management committees” are permanent spaces for learning, exchanging experiences and, above all, decision making. The construction of these spaces involves recognition and approximation of the different formal and informal organizations that exist in each community. Below we present experiences with commercialization and financing, and show how collective management was incorporated into these initiatives.

Commercialization

Considering that about 70% of the products consumed in the municipalities of northern Mato Grosso originate outside the region and the state of Mato Grosso, there is a large unfilled niche for commercialization of regional products. In 2008, IOV started working with SISCOS (Solidarity Marketing System), a strategy that bridges the organization of production with the organization of consumers. In practice, SISCOS involves two systems: a community organization system, in which farmers provide information on their weekly production, and a system in which consumers can access these products, place orders, and receive the products. The strategy differs from other existing marketing mechanisms by allowing each consumer to assemble his own basket of products, and all farmers to participate regardless of the quantity or variety of products that they have to sell. **The logic of SISCOS is to value products that were not formerly commercialized, and sometimes left unused, thus functioning as an additional source of income for families. Much of the produce circulated is grown in household gardens, rather than commercial fields.**

Initially, SISCOS worked with manual lists and the circulation of information by telephone, making use of community leaders in the countryside and in the city. Today, however, the entire system is managed by IOV through an online platform. IOV is the platform manager and animator and articulator of the network of farmers and consumers, in addition to handling the logistics of distributing part of the production.

Despite being a small initiative in specific communities, with limited capacity to serve consumer families, the experience developed by IOV through SISCOS brought important impacts to those involved. Outcomes documented include greater family engagement at work, greater appreciation of the work of women, who are usually responsible for managing household gardens, and encouraging diversified production and greater food security on the part of farming families who, once encouraged to produce, even on a small scale, began to consume a larger basket of products in their homes.

Microcredit for production, processing and marketing

The microcredit strategy was born at IOV within the framework of SISCOS, in response to the perception of the need for small investments in properties participating in this system. As IOV did not have independent resources available, it articulated with consumer groups to advance the monthly amounts they used to spend at SISCOS so that this money could be used as an investment by farming families. In this way, the first credit mechanism managed by the IOV was born. The advantage of this mechanism was its low risk, as the farmer who accessed the resources already had his production pre-ordered. On the other hand, the borrowing capacity was very small as it depended on the existence of consumers willing to pay, in advance, their monthly consumption of products. Usually, about R$300 to R$600/family was allocated[3].

After two years of operation, and thanks to the good results of the initiative, IOV received a donation of R$ 50,000 from a private sector donor exclusively to structure its own microcredit fund. With this fund, the system was detached from the need to obtain advance funds from consumers, allowing support of investments of up to R$ 2,000/family. In order to strengthen autonomy, it was necessary to create community groups to manage the loan system. It would no longer be IOV who would select the proposals, but the community itself, based on local criteria, with the IOV only being responsible for the economical and technical evaluation of proposals.

Among the projects supported by Instituto Ouro Verde through microcredit resources, two project profiles stand out. One type is projects aimed at structuring new productive activities, such as the installation of agroecological gardens and agroforestry orchards. These projects are generally designed to generate economic returns from the grace period of the financing (three or six months) with a lower total value (usually between R$ 5,000 and R$ 8,000). The other main type of investments are those to improve economic activities that are already developed by farmers, such as the installation of rotational grazing management systems, installation of silvopastoral systems, or purchase of equipment to better manage productive areas. As a rule, these investments are larger and seek to optimize the family's workforce and increase the profit per hectare of the activities developed. It is important to note that credit repayment is not always made only with the resources generated by the project. In cases where the time to start the return of the invested activity is longer than the grace period, it will be the economic analysis of each family that will indicate the degree of risk associated with this investment. In all cases, the increase in the net margin of property income is estimated, seeking to characterize the impact of the investment on the family's financial dynamics.

From 2012 to 2018, Banco Raiz invested in more than 150 microcredits projects, transforming the initial resource of R$ 50,000 into approximately R$ 350,000 in investments in properties. In 2021, IOV received a new donation to raise the fund to R$ 650,000, expanding Banco Raiz's operation to nine municipalities and ten credit evaluation committees, and allowing investments of up to R$ 15,000. In 2021 alone, 35 projects were approved, totaling approximately R$ 300,000. It is estimated that by 2022 around R$ 600,000 will be lent with the expansion of the network of communities that form Banco Raiz.

[3] | The approximate exchange rate at that time was R$ 1,80 = US$ 1,00

The microcredit strategy implemented by IOV is not intended to replace conventional credit channels, especially PRONAF (National Program of Credit for Family Agriculture). It is a parallel path, allowing access to investment resources by families that have difficulty accessing public resources, whether due to documentation problems, lack of physical guarantees, or even due to having alternative investment objectives in relation to existing lines of credit.

LESSONS, LIMITATIONS, AND CHALLENGES

IOV and partners have learned many lessons from more than 15 years of work. Perhaps the central lesson is the degree to which results depend on people and their level of local articulation. The ability of rural communities to work together, resolve local conflicts, and plan collective strategies is at the heart of the success of any local development strategy. This analysis may seem trivial and obvious, but this is not a simple challenge, especially in a context that increasingly individualizes the farmer. It is important to highlight that during these 15 years of work, the largest investments made by IOV in communities were mainly for activities of training and local articulation.

A clear challenge is the financial support of these initiatives. For many years, IOV relied on resources from government programs and private partners to subsidize its actions through non-reimbursable resources. Changes in the Brazilian political and economic context call into question the survival of these strategies. Thus, both SISCOS and Banco Raiz needed to think of mechanisms to become less dependent on external support.

An important limitation for the expansion of product commercialization and, consequently, financial support of the commercialization system, is the low added value of the commercialized products, which usually involve little or no processing. This situation is informed by historical difficulties in establishing small agro-industries in rural communities. **Key limiting factors include health legislation more focused on structure than on final quality of products, difficulty in accessing financing aimed at structuring agro-industries, lack of specialized labor for their operation, and lack of working capital to make these ventures viable.**

Support from Banco Raiz depends on the ability to lend more and to circulate more existing resources. The greater the circulation, the easier it is to distribute the bank's fixed costs among the loans made, thus making these loans cheaper. This challenge is not unique to Banco Raiz, but shared with the entire network of community banks which, in Brazil, comprise more than 104 initiatives, generally developed in urban environments. Community banks usually have little lending capacity and high operating costs, making credit more expensive than conventional credit. Their biggest difference is in easier access, allowing people outside the conventional credit market to access resources and make investments. Recent policies of subsidized microcredit being offered by public agencies have made it difficult for most community

banks to sustain themselves. A different path would occur if these policies used the community banks themselves as operators of this microcredit, contributing with resources to sustain it.

HOW CAN WE APPLY THE LESSONS?

This study suggests a set of strategies that can be used to ensure the socio-economic viability of initiatives such as the solidarity marketing system of SISCOS and Banco Raiz to increase their impact on the regional development process. These strategies also represent opportunities for research and investment, and provide valuable guidelines for those who would like to apply the lessons learned in this region to develop similar initiatives elsewhere.

The **first strategy** is to reduce the demand for external resources to cover fixed costs related to the management of commercialization processes. These costs basically refer to financial management, hosting and updating of the online system, and the dissemination and implementation of marketing campaigns. The path that the IOV has been pursuing since 2021 is the expansion of the system to other municipalities, forming an operating network of autonomous systems. In this way, each local system must generate sales to support its local operating costs (mainly related to the transport of products), and also contribute to general management costs, centralized in one institution.

The formation of a territorial network of local commercialization, with collaboration among municipalities, the exchange of experiences and products, and the articulated work involving the countryside and the city provide investment opportunities to invest in small businesses, especially for groups linked to the solidarity economy movement. SISCOS itself has been opening opportunities for small traders in the municipalities to sell products made from raw materials that were themselves traded by SISCOS. In this way, the movement expands and contributes to generation of income and employment in rural and urban areas.

The **second strategy** is to expand the offer of products by articulating with family farming ventures in other regions of the state and in Brazil, thus allowing the diversification of the basket of products without generating internal competition in the groups, with the possibility of increasing the value of the average basket acquired by the consumers. In the case of SISCOS, for example, products such as rice, beans, and wheat flour, which are part of regular household consumption, are not produced in the region. This means, in practice, expanding the collaboration network to other groups linked to the solidarity economy and family farming.

The **third strategy** is to create campaigns focused on the consumption of local foods from family farming. This generates demand for the products, with benefits not only for marketing initiatives such as SISCOS, but for the entire network that sells food in a municipality or region, such as supermarkets and restaurants. The engagement of local public authorities, commercial associations, and urban groups is fundamental in this regard. In the case of SISCOS, the campaign used in all materials uses the slogan “Eat well, eat locally.”

*An **additional set of strategies** to expand the scale and extent of microcredit would complement the above strategies for strengthening commercialization.*

A ***first strategy*** here is expansion of the size of the fund, that is, of the resources that can be borrowed. Community bank funds can be expanded through their own resources, which depends on the ability to attract external donations from partner entities, or come from private investments. In this case, it is necessary to map and attract investors who look beyond short-term returns, and to build a clear strategy of transparency in the application of resources. Currently, there are platforms and organizations that work to facilitate communication between social investors or impact investors and groups such as IOV and Banco Raiz.

Currently, Banco Raiz’s interest policy allows the engagement of private investors, ensuring a return of around 0.8 to 1.0% per month on the investment made, with the possibility of starting the amortization of the investment in three to six months and receiving monthly payments thereafter. Obviously, macroeconomic policy will determine how attractive these conditions can be and which investor profile will be interested.

A ***second strategy*** is articulation of popular banks with resources from public policies and programs supporting both microcredit and rural credit. This can be an interesting path as it combines resources that already exist in government programs, but which often have difficulty being applied to the most vulnerable groups, with the capillarity and quality investment capacity of community banks.

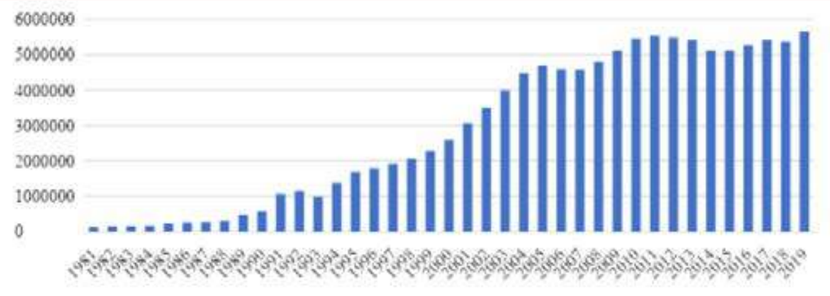
The ***third strategy*** is founded in organization and training of groups in rural communities to manage resources locally and, in this way, minimize the managerial cost of loans, increase efficiency and effectiveness in conflict resolution, and gain scale in the application of resources. This point is fundamental because there is little point in having resources for expansion without having the ability to apply this resource.

The expansion of Banco Raiz may involve partnerships with other organizations, taking advantage of the IOV’s expertise in financial management and, at the same time, the ability to articulate these organizations. Thus, more than vertical growth, horizontal growth is sought.

A ***final strategy*** is to develop a support network to provide technical assistance to farmers for project design and monitoring of their implementation. At Banco Raiz, this demand has been met through a partnership with the rural extension agency (EMPAER) and the involvement of the State University of Mato Grosso, in addition to Instituto Ouro Verde’s technical team, internalizing part of the costs of this work in the interest payments from the different lines of financing.

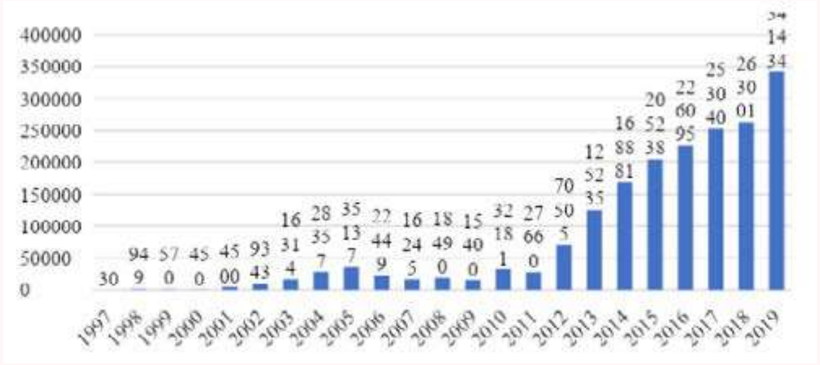
GRAPHICS

[Fig. 1] | Evolution of the number of cattle herds in Portal da Amazônia, Mato Grosso-MT.



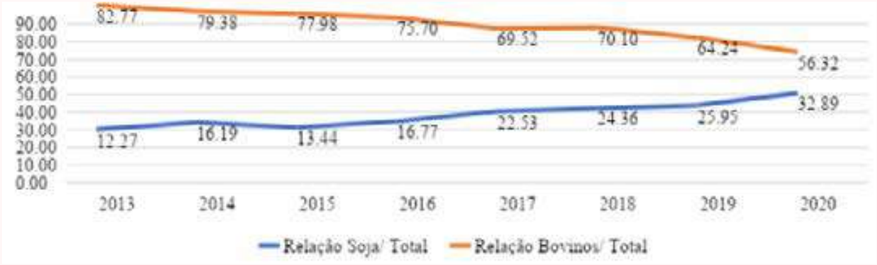
Source: Prepared by the authors from data from the Municipal Livestock Survey (IBGE, 2020).

[Fig. 2] | Area of soy planted (hectares) in Portal da Amazônia, Mato Grosso-MT



Source: Prepared by the authors from data from the Municipal Agricultural Survey (IBGE, 2019).

[Fig. 3] | Participation of the total value of rural credit resources destined to the cost of soybeans and cattle breeding in the period from 2013 to 2020.



Source: Prepared by the authors from data from the Central Bank of Brazil (BACEN, 2021)

KEY MESSAGES/HIGHLIGHTS

- *Community organization is essential for productive inclusion and agroecological transition initiatives.*
- *Networking beyond the territory can increase viability for both commercialization and credit.*
- *Commercialization and credit are strategies that must be thought of together.*
- *There are concrete possibilities for partnerships with impact investors to scale up these experiences.*
- *The case demonstrates how official credit resources can be allocated to activities that effectively change the land occupation and regional development strategy.*

REFERENCES

BACEN. Banco Central do Brasil. Matriz de Dados do Crédito Rural – MDCR. 2021a. Available at: <https://dadosabertos.bcb.gov.br/dataset/matrizdadoscreditorural>. Accessed on:20 jan. 2020.

Barbosa MZ. 2015. Fronteira Agrícola: a soja na Amazônia Legal. Análises e Indicadores do Agronegócio. Análises e Indicadores do Agronegócio, 10(1): 1-5.

Costabeber JA. 1998. Acción colectiva y procesos de transición agroecológica en Rio Grande do Sul, Brasil. Tese de Doutorado em Agroecologia, Campesinato e História. Instituto de Sociología y Estudios Campesinos. Universidad de Córdoba.

Dias Filho, MB. 2014. Diagnóstico das pastagens no Brasil. Belém: Embrapa Amazônia Oriental. 36p.

IBGE. Instituto Brasileiro de Geografia e Estatística. Pesquisa Agrícola Municipal. 2019. Available at: <https://sidra.ibge.gov.br/pesquisa/pam/tabelas>. Accessed on:20 mar. 2020.

IBGE. Instituto Brasileiro de Geografia e Estatística. Pesquisa da Pecuária Municipal. 2020. Available at: <https://sidra.ibge.gov.br/pesquisa/ppm/quadros/brasil/2019>. Accessed on:20 mar. 2020.

Junior AAM, Jung CF. 2017. Produção leiteira no Brasil e características da bovinocultura leiteira no Rio Grande do Sul. Revista de História e Geografia Ágora, 19(1): 34-47, 2017. DOI: http://dx.doi.org/10.17058/agora.v19i1.8446

Olival AA. 2016. A Resiliência em Assentamentos Rurais:: uma experiência na região norte de Mato Grosso. Revista Sustentabilidade Em Debate. 7(2): 90 - 103. DOI: https://doi.org/10.18472/SustDeb.v7n2.2016.15320

Oliveira ALA. 2014. Políticas públicas para agricultura familiar: uma análise a partir do Projeto de Assentamento São Pedro, município de Paranaíta-MT. 2014. 149p. Dissertação (Mestrado) – Universidade Estadual de Campinas, Campinas. Available at: <http://repositorio.unicamp.br/jspui/handle/REPOSIP/257124>.

Vieira Filho, JER. 2016. Expansão da Fronteira Agrícola no Brasil: desafios e perspectivas. Brasília: Rio de Janeiro: Instituto de Pesquisa Econômica Aplicada. 36p.

Weihs M., Sayago D., Tourrand JF. 2017. Dinâmica da fronteira agrícola do Mato Grosso e implicações para a saúde. Estudos avançados, 31(89): 323-338. DOI: http://dx.doi.org/10.1590/s0103-40142017.31890024

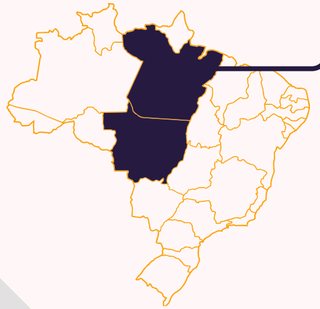
Sicredi Credit Cooperative: ESG-based finance at scale

Renato Farias[1], Valter Souza[2], Efrain Ricca[3]

Initiative Coordinator Economic Incentives for Conservation - Instituto Centro de Vida – *renato.farias@icv.org.br* [1]

Development Manager Cooperativism - Sicredi Grandes Rios Credit Cooperative [2]

Development Manager Cooperativism - Central Centro Norte - Sicredi Grandes Rios Credit Cooperative [3]



LOCATION

Mato Grosso and Pará, Brazil

CASE STUDY

Sicredi System, the oldest and one of the most consolidated credit cooperatives in Brazil

INNOVATION

Sicredi System is guided by a model of **effective participation,** with members trained and prepared for collective decision-making. Its potential for continuing growth provides **opportunities for investors** and institutional partners committed to supporting implementation of the **Environmental, Social and Governance (ESG)** agenda

MAIN LIMITATIONS

Conventional models of resource distribution for investment in productive practices have historically lacked socio-environmental considerations

MAIN CHALLENGES

Sicredi and similar organizations **struggle to include social and environmental concerns** in a system where economic calculation has been limited to financial profit

KEY LESSONS LEARNED

Sicredi in Mato Grosso and Para **consolidated with its governance model** and a commitment to guide its operations with **socio-environmental criteria** is a milestone in this movement

keywords:

- **CREDIT**
- **COOPERATIVE**
- **ENVIRONMENTAL, SOCIAL & GOVERNANCE AGENDA**

ABSTRACT

The Sicredi System is the oldest and one of the most consolidated credit cooperatives in Brazil. A branch of this system called the SICREDI Grandes Rios Credit Cooperative has been based in two of the states with the greatest socio-environmental and economic challenges in the Brazilian Amazon, Mato Grosso and Pará, since 1992. The Cooperative is guided by a model of effective participation, with members trained and prepared for collective decision-making. Its potential for continuing growth provides opportunities for investors and institutional partners committed to supporting implementation of the Environmental, Social and Governance (ESG) agenda, by offering credit that helps to scale up investments with socio-environmental criteria, such as social finance inclusion, Renewable Energies, and Good Agricultural Practices.

KEY MESSAGES

1 Investments in **conventional production** systems are **less bureaucratic**, with lower interest rates, and easier to access

2 Investments in **ESG agendas in the Amazon** must be made **with institutions that know** the Amazon ecosystem and its complexities

3 The Cooperative Credit system is a **solid partner** to directly **contribute to the vulnerable territories** of the Amazon

4 The Cooperative Credit system is a solid partner to **help investing institutions to achieve** results in their ESG agendas

5 **Sicredi** is an **important financial arm** for joint fundraising for green investments

Check out the complete Latin American Business Environment Report released in 2022

INTRODUCTION

Starting in the early 1970s, Northern Mato Grosso in the south of the Brazilian Amazon underwent extensive colonization. Currently dominant occupation models based on frontier expansion and short-term exploitation of natural resources, together with lack of adequate infrastructure, put municipalities and their populations in precarious situations and with high levels of poverty. Conventional credit systems from major banks exacerbate this situation by focusing their investments on a limited range of conventional production systems, such as cattle and grain in the rural areas and large enterprises in urban areas. With little application of socio-environmental criteria, these lending practices have a high capacity for environmental degradation and worsening of the difference between social classes. Lending from these large banks entails bureaucratic procedures and large loan sizes that effectively restrict availability to large-scale producers and businesses, while smaller enterprises have much less access to capital for investments in sustainable practices.

This situation that favors economic investments with negative social impacts creates challenges for the agenda of collective governance with consideration of social and environmental aspects. This is historically one of the main challenges in the entire Brazilian Amazon region. **Now that there is a growing demand for all corporate practices to be guided by the ESG sustainability tripod -- Environmental, Social and Governance -- there is urgent need to understand the real demands of the territory and types of investments that will make positive impacts, based on a concrete and close assessment of the vocation of the territory and the people who live there.**

This case study presents an emerging experience with credit cooperatives by SICREDI Grandes Rios, that seeks to provide an alternative to the currently predominant conventional credit systems. This alternative prioritizes inclusiveness and strengthening these territories and their vocations. Specifically, Cooperative Credit seeks to improve the distribution of income, include less populated municipalities in banking systems, and contribute to the strengthening of local economies.

This case study was developed by three authors who are currently co-responsible for supporting and disseminating the sustainability agenda in the SICREDI credit corporative in two Amazonian states, Pará and Mato Grosso: Renato Aparecido de Farias, member of ICV[1], an NGO active in Mato Grosso for 31 years and supporter of SICREDI's Sustainability agenda; Valter Souza, Coordinator and Manager of Cooperativism at SICREDI Grandes Rios; and Efrain Ricca, Coordinator of Cooperativism at SICREDI Grandes Rios' Central Centro Norte.

The case study emphasizes the potential importance that the Cooperative and its operating model have for the future, with emphasis on the implementation of a practical ESG agenda that is linked to Sicredi's organizational purpose. We characterize the Sicredi Grandes Rios Cooperative as a consolidated organization, with stability and the necessary structure to anchor large resources. We highlight Sicredi Grandes Rios' growth potential as a strategic local partner for investors and/or companies that wish to make effective contributions in the Amazon.

[1] | www.icv.org.br

CONTEXT

Credit operations in Brazil were for a long time directly associated with few financial institutions. Until 2017, for example, four large banks (Banco do Brasil, Caixa Econômica, Itau and Bradesco) controlled 78.5% of all credit operations in the country[2]. These financial institutions mainly function in regions with higher population or income concentrations, and have limited capacity to adapt to innovative, regionally appropriate development models, or to partner with strategic local organizations. In June 2019, of the total of 5,570 Brazilian municipalities, 2,232 did not have bank branches and 378 did not have any bank services at all[3] (i.e. no ATM or other local bank services). This requires that any banking be done in regional cities, with costs of time and transport, a situation that favors more established owners and enterprises, that have conditions to move to cities and are able to meet bureaucratic demands to release credits for investments, and effectively excludes less prosperous segments of the population from credit and other banking services.

This situation is especially problematic in more isolated regions, exemplified by the states of Mato Grosso and Pará where this case study takes place. These states have among the highest agricultural production rates in Brazil, Mato Grosso being the largest producer of soy and livestock and Pará as the third largest in livestock production. At the same time, these high levels of production place Mato Grosso and Pará in first and third places for the highest levels of deforestation in the Amazon.

This association between greater production and greater environmental impact is also reflected in the antagonism between higher production rates and great social inequalities in Amazonian states. A key factor has been this historical model of credit availability in these regions that does not allow small farmers to obtain funding due to difficulty in accessing the less favored regions, bureaucracy when reaching these banking environments, and lack of credits guided by green and sustainable practices.

It is in this context of territorial financing gaps that Credit Cooperatives provide viable alternatives for directly contributing to filling socio-environmental needs in these territories. Already consolidated cooperatives, such as Sicredi, are taking financial institutions to territories that do not yet have them, working with conventional public and private credit lines available; they are also reducing bureaucracy by establishing new and self-managed credit models directly for the local territories where they work.

[2] https://g1.globo.com/economia/noticia/quatro-maiores-bancos-detinham-78-do-mercado-de-credito-do-pais-no-fim-de-2017.ghtml accessed April 22, 2022. Cited on page 16 of Sicredi and Fundação Instituto de Pesquisas Econômicas, 2019, Benefícios Econômicos do Cooperativismo de Crédito na Economia Brasileira https://www.sicredi.com.br/media/sicredi-beneficios-do-cooperativismo-de-credito.pdf accessed April 22, 2022).

[3] Bacen (ESTBAN) - Estatística Bancária Mensal por município (junho de 2019) e Divulgações Mensais - Evolução do Sistema Financeiro Nacional (SFN accessed April 2022); Cited on page 16 of Sicredi and Fundação Instituto de Pesquisas Econômicas, 2019, Benefícios Econômicos do Cooperativismo de Crédito na Economia Brasileira (https://www.sicredi.com.br/media/sicredi-beneficios-do-cooperativismo-de-credito.pdf, accessed April 22, 2022).

CASE STUDY DESCRIPTION

The Sicredi System is the oldest Brazilian Credit Cooperative. It originated in the South of Brazil in 1902 and is now present throughout Brazil (Figure 1). As of 2022, it has more than 5.5 million members and 2,200 branches, distributed in more than 100 cooperatives. Its workforce is over 30,000 and for the 9th consecutive year it was considered among the "Best Companies to Work for" according to Você S/A magazine, and for the seventh consecutive year, it is in the Melhores & Maiores ranking of Exame magazine (important Brazilian magazines)[4]. In economic terms, the System has 25.3 billion Reais of net equity, 205.7 billion of assets, 134.8 billion of balance in the loan portfolio and 133.7 billion of total deposits[5].

[Fig. 1] | Sicredi present in all states of Brazil (2022)

Sicredi's growth and results over time are supported by a set of principles of cooperativism brought from its origin, contributing to the System fulfilling a prominent role in sustainability agendas and being at the forefront in practical actions of the ESG agenda. These are: i) Valuing and developing people; ii) Preservation of the institution as a system; iii) Effectiveness and transparency in management; iv) Respect for official and internal rules; v) Unrestricted preservation of the cooperative nature of the business; and vi) Respect the individuality of the member.

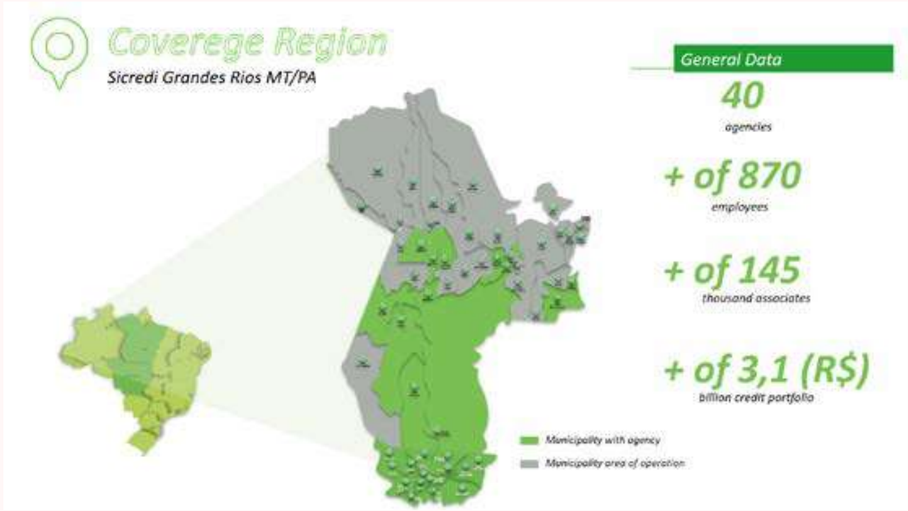
In 1992, a new territorial division of the Sicredi System called Sicredi Grandes Rios, based on the sustainability and cooperative principles of its already consolidated national presence, was launched in a service region of 52 municipalities in the North of Mato Grosso (14 municipalities) and the South of Pará (38 municipalities). By 2021, Sicredi Grandes Rios had 40 physical branches in 24 municipalities (14 MT and 10 PA) (Figure 2). In six of these, the Cooperative is the only financial institution, which is one of its inclusion purposes, given that they are municipalities with low financial indices. Sicredi Grandes Rios has also contributed to institutional inclusion in unbanked environments with social classes C, D and E[6] making up about 70% of the Cooperative's Associates. The cooperative is a less bureaucratic entrance point to the banking system that provides credit, financial and other banking services with lower costs and attractive conditions for small-scale clients.

https://www.sicredi.com.br/site/sobre-nos/ accessed April 2022 | [4]

https://www.sicredi.com.br/site/sobre-nos/ accessed April 2022 | [5]

Class C are those earning from 4-10 times the minimum salary per month, between US$ 1,050 and US$ 2,600. Classed D and E earn below $1,050 and below $525 per month, respectively. | [6]

Between 2019 and 2021, the number of cooperative associates in Sicredi Grandes Rios grew by 87%, from 79,475 to 145,120, indicating a clear process of consolidation in the territory, both through the diversification and presence of agencies, as well as through the level of trust and confidence that it has established with the local population. This growth was directly reflected in the financial values of the Cooperative: its equity value went from 1.3 billion Reais in 2019 to 2.75 billion in 2021, a jump of 110% in liquidity, and its credit portfolio grew from 2.2 billion Reais in 2019 to 3.21 billion for 2021. The growth of these values is a result of years of positive results and reinvestment of those values in the system.



Coverege Region Sicredi Grandes Rios with general data (2021) | [Fig. 2]

The Cooperative's profits are distributed to the associates in their personal accounts, proportionally to the active financial participation of the associate, such as the use of cards or access to credit. At the 2022 assembly meeting, Sicredi Grandes Rios distributed around 84 million Reais to members[7].

The numbers above show how the credit cooperative system has been consolidated and become a model for investments. Sicredi Grandes Rios has consolidated a robust credit system with a scale to serve thousands of people and their businesses in a region historically characterized by environmental, social, and governance challenges. It is guided by criteria and commitments of a financial system that is legally guided by qualified participation and that dialogues with actors, in this case associates, who know the dynamics of their own territory. Furthermore, the cooperative system does not have a centralized arrangement, but is a decentralized system that allows direct and practical attention to agendas that correspond to their regional realities. This decentralization allows decision-making on the application of resources from the Cooperative's earnings or fundraising strategies to be approved in its own governance bodies, the Regional Assemblies of Associates.

Through this regional governance self-capacity, the cooperative combines growth, strengthening, and consolidation with opportunities for future development of the Sicredi Grandes Rios Cooperative to build on its institutional capacity and positioning to address gaps present in the conventional credit system in the Amazon territory. By working in close dialogue with strategic local partners, Sicredi Grandes Rios can develop systemic programs that directly address the global demand for institutions to incorporate their good ESG (Environmental, Social and Governance) practices into their agendas. Sicredi Grandes Rios, consistent with the guidance of the Cooperative System, has these practices in its purpose and is committed to implementing them in its day-to-day operations.

An example of how this can be done is through sustainability guidelines, such as the Good Agricultural Practices (BPA). Examples of these have already been developed by the non-governmental organization ICV and the national agricultural research agency Embrapa: The Novo Campo project[8] took BPAs to large livestock properties (area above 800 hectares), and the Conectagro project[9] has been working with BPA for medium-sized properties (between 200 and 800 hectares in area). Another example is the Rota Local project [10] which promotes production diversification and marketing projects with income inclusion for family farmers. Although important and with proven results, such initiatives still lack green resources for a larger scale. The examples cited are present in only 4 municipalities in the North of Mato Grosso, representing less than 10% of the coverage potential when considering the area of operation of Sicredi, which reaches 52 municipalities in both states. This places Sicredi Grandes Rios, based on its wide distribution and consolidated structure, as a strategic partner in the implementation of these agendas, with the potential to increase specific credit lines to support these green agendas.

[7] https://www.sicredi.com.br/media/Pasta%20de%20Relat%C3%B3rios/sicredi_grandes_rios_mt_pa_122021.pdf

[8] https://www.icv.org.br/projeto_especial/novo-campo-program/

[9] https://remmt.com.br/index.php/pt/noticias/item/154-conect-agro-rem-mt-incentiva-pecuaria-sustentavel-no-portal-da-amazonia

[10] https://www.icv.org.br/publicacao/boletim-rota-local/

Environmental considerations

The total investment by Sicredi Grandes Rios in rural activities grew from 1.2 billion Reais to 1.95 billion between 2019 and 2021. These resources are distributed to 17,300 agricultural enterprises: 14,300 family farms with 823 million Reais, 2,300 medium-sized farms with 640 million Reais, and 663 large properties with 503 million Reais. While these numbers are encouraging, and Sicredi Grandes Rios is a leader in the country in allocating resources to family farmers, it is still the case that the largest 4% of agricultural producers receive 26% of the resources.

While Sicredi follows official lending requirements that have gradually strengthened environmental regulations in the agricultural sector, it has also expanded upon these with the implementation of its own investment agendas. Sicredi Grandes Rios has been creating special financial lines with its own resources or raising earmarked funds to invest in inclusion and rural development, including specific lines of credit for women's groups and to service local productive cooperatives. The former line made 27 million Reais available for loans to women leaders in the countryside and the second provides funds to strengthen the dairy value chain in municipalities with that vocation.

This growth has demanded, in parallel, that the Sicredi Grandes Rios Cooperative has developed training and partnership agendas with non-profit institutions for the implementation of Good Environmental and Social Practices, such as the partnership with Instituto Centro de Vida for the dissemination of good environmental practices for the cattle ranching[11] (Figure 3) and the Socioproductive Networks project[12] (Figure 4).

[11] https://www.youtube.com/watch?v=UKHaMYRcvzc&list=PLH0XsN2wGrLCCg7NZn6OJuDGBPos7AUdy

[12] https://www.youtube.com/watch?v=G7BaL1mdYAs&list=PLH0XsN2wGrLCTZWY4F0xHG2Uw9As8gUhC&index=2

Livestock property with partnership to implement Good Agricultural Practices [Fig. 3]

[Fig. 4] | Small rural property partner of the project with hortifruti production

Sicredi Grandes Rios has also provided low-interest and long-term credit for solar energy, increasing from 21.5 million Reais in 2019 to 150 million Reais by the end of 2021. Sincredi thus promotes an agenda of crucial importance for a territory widely threatened by energy using fossil fuels or by the expansion of hydroelectric dams in conserved environments.

Social considerations

Sicredi Grandes Rios, with its positive financial results, has part of its gains earmarked for social programs that are accessible to local community groups who submit projects proposals to the Cooperative. The basic criterion for selection of these projects is that they promote the development of the region and address education and culture, entrepreneurship, health or safety. Projects are supported with a minimum value of R$ 1,000 Reais and a maximum of R$ 15,000. Since its inception, 44 projects have already been supported with R$ 575,000 released. For 2022 this will increase to R$ 1 million[13].

Sicredi also has two special educational programs that support the Cooperativism agenda and its importance in these territories: i) União Faz a Vida and ii) Financial Education. The União Faz a Vida program is one of the main social educational programs in the country that provides support to students (Figure 5) and teachers in regions where Sicredi is present while emphasizing principles of collaboration and citizenship. The program has already served more than 3.7 million students, 180,000 educators, and 2,700 schools in more than 470 municipalities in 11 states, including Mato Grosso and Para[14].

[13] | https://www.sicredi.com.br/media/Pasta%20de%20Relat%C3%B3rios/sicredi_grandes_rios_mt_pa_122021.pdf

[14] | https://www.sicredi.com.br/media/Pasta%20de%20Relat%C3%B3rios/sicredi_grandes_rios_mt_pa_122021.pdf

Training activity with students from the União Faz a Vida Program | [Fig. 5]

The Financial Education initiative provides support to Sicredi's associates and communities where the Cooperative is present. Through this initiative, Sicredi provides in-person and online training to strengthen the organizational and financial planning of individuals, companies, and rural property owners. Training organized by the national system includes the National Financial Education Week plus specific pre-scheduled dates in the territories, as well as a continuous set of lectures and training spaces coordinated by its regional agencies.

Governance considerations

The Sicredi credit system is guided by a well-developed participatory governance structure. A credit cooperative is based on an association model in which the associates are the clients and the owner of the business. Hence the great importance and investment in training. Annual Assemblies of Associates, where all the associates have the right to voice and vote (Figure1), are the highest decision-making process. In these assemblies, the actions developed in the previous year and the planning for the next one, whether investing in new lines of credit or opening new branches, are voted on in collective spaces. It is also at these meetings that associates receive information on the Cooperative's financial performance and, consequently, the part of the profits that they will receive in their accounts.

Direct reflections of this governance model are evident in levels of satisfaction by the associates. These results are documented with the Net Promoter Score (NPS), one of the best current results evaluation indices, focusing on the satisfaction levels of its customers (associates). It is an important index because it positions institutions in international standards. And Sicredi has continuously increased the quality of these indices, reaching the record level of 74.1% of satisfaction in 2021[15]. A recent publication by Forbes Magazine[16] endorses these NPS results, placing Sicredi in fourth place among the 15 best Brazilian banks, and in first place among other financial institutions, since the first 3 are fintechs. These results corroborate the high levels of reliability, digitalization, service and financial advice of the Cooperative.

[15] https://www.sicredi.com.br/site/sobre-nos/noticias/sicredi-alcanca-indice-de-satisfacao-recorde-com-seus-associados/

[16] https://forbes.com.br/forbes-money/2022/04/15-melhores-bancos-do-brasil-em-2022-segundo-a-forbes/

Assembly when members are voting | [Fig. 6]

Since an effective participation of its associates and representatives is crucial, the cooperative implements two training programs to ensure a qualified participation of its members. Between 2019 and 2021, the two programs served more than 39,000 people at Cooperativa Grandes Rios. This was possible in spite of the pandemic by innovative use of virtual spaces.

The Pertencer Program[17] (Belonging) prioritizes the role that members have as owners of the cooperative and the importance of their role in its decisions. The Program implements communication and support actions for cooperatives to stimulate, guide and support the participation of the associate in collective spaces, Assemblies. In these actions, it brings the contents that show the Why of participation and its importance for institutional transparency and the financial drivers of the business. The Crescer Program complements this agenda, deepening knowledge and encouraging members to be co-responsible for the development of the cooperative system, including attracting new associates.

This **participatory governance model makes it possible for the territories in which Sicredi is located to be heard, for Sicredi to understand the challenges and, in turn, implement specific territorial agendas defined in the territory itself.** As an example, we can mention the response to a demand presented at a collective meeting to open a service center for a municipality that does not have an active financial system[18]. Another relevant example was the demand brought by a group of associates to support a milk cooperative in the region that needs access to lower credit than the conventional ones in the financial market. Because of its decentralized and participatory governance model, Sicredi can support projects like this with its own resources.

LIMITATIONS AND CHALLENGES

Conventional models of resource distribution for investment in productive practices have historically lacked socio-environmental considerations. The criteria for allocating resources were more centered on the borrower's ability to pay, rather than on compliance with regulations or any other positive criteria. The transition to a model that considers economic, environmental, and social efficiency is challenging. It not only places restrictions on the credit model, but also demands that producers, historically linked to conventional models, be sensitive to a new agenda. Since the financial system maintains itself with the increase of associates and investments, the Cooperative demands that its business models do not alienate associates, while being competitive with traditional models.

Sicredi and similar organizations struggle to include social and environmental concerns in a system where economic calculation has been limited to financial profit. The inclusion agenda -- with assistance to low-income social classes and/or family farmers -- is more costly and less profitable for the financial system. Serving an owner with thousands of hectares with soybean or livestock is much cheaper and profitable than serving dozens of small properties. Thus, maintaining this inclusion and expansion agenda is challenging for the banking system, since it needs to

[17] https://www.sicredi.com.br/site/fundacao/programa-pertencer/

[18] https://www.sicredi.com.br/coop/grandesriosmtpa/noticias/sicredi-inaugura-primeira-agencia-em-novo-repartimento-no-para/

remain profitable. Although the cooperative has this in its purpose, attention to maintenance and investment to expand service is continually challenging.

The largest source of resources for investment in agricultural sectors currently available to the financial sector, between 85 and 90%, are government sources. These are resources that, despite nominal requirements for environmental responsibility, are not flexible to meet local demands. This lays out a challenge to the cooperative to capture specific resources for green agendas, to fulfill expansion and scalability strategies for positive socio-environmental agendas appropriate to Amazonian territorial issues, as an alternative to conventional economic arrangements that privilege a system with a high negative impact on a vulnerable and complex ecosystem as in these Amazonian states.

OPPORTUNITIES FOR BUILDING ON / GOING BEYOND THIS CASE

The consolidation to date of Sicredi Grandes Rios in Mato Grosso and Para with its governance model and a commitment to guide its operations with socio-environmental criteria is a milestone in this movement. It is a system that is recognized for the quality of service, employee well-being, and direct support to institutions that aim to grow in the region. This constitutes a virtuous cycle of funding and reinvestment within the local economic context. Sicredi Grandes Rios intends to continue its expansion with the goal of reaching, by 2030, presence in all 52 municipalities in its service area, with the purpose of sustainability, respect for territorial orientation and local demands, and inclusion. This includes the construction of branches in municipalities that until now do not have credit systems, and the ability to serve low income classes.

For the expansion to be carried out with practices based on sustainability, it is necessary to have access to sources of capital that prioritize socio-environmental criteria. These resources can contribute to inclusive agendas and allow access to less favored social classes, and can promote demonstrated productive arrangements based on Good Agricultural Practices that provide positive examples for more and more associates. The goal of this expansion is that, in the medium term, credit portfolios with socio-environmental commitments and criteria become larger and less bureaucratic than conventional credit that serves to expand environmentally damaging soybean plantations and conventional livestock.

OPPORTUNITIES FOR LATIN AMERICAN BUSINESS ENVIRONMENT

The numbers from the Sicredi Credit System as a whole -- millions of associates distributed in cooperatives and agencies throughout the national territory, and billions of Reais invested and in its own equity -- show that the Cooperative is a solid institution. Furthermore, in the specific case of Sicredi Grandes Rios, its territorial importance and recent consolidation provide a particular window of opportunity to address the historical lack of green credit in the Amazon.

Sicredi Grandes Rios offers potential scale of service to the territory; it is an institution that has expansion as one of its main goals and that knows the challenges of the complex Amazon region. Its proven management capacity, presence in the most strategic environments, and institutional characteristics of local presence and the potential for expanding partnerships with the non-profit sector position Sicredi Grandes Rios as a key partner in composing an arrangement of investors in green agendas in Amazonian states. Furthermore, resources invested in the system return to the system itself, constituting a virtuous cycle of local investment, development, and inclusive economic growth.

Building an investor agenda based on already proven practices currently being implemented on a small scale by NGOs, with a credit arrangement targeted to scaling up these initiatives, can contribute directly to Amazonian communities. **It also serves as an opportunity for the ESG agendas of Latin American investor groups, because the territorial presence of the system allows due diligence; each agency may have its goals achieved and results documented. Investors can discuss with the Sicredi system the best territories for future investments. This allows negotiation of win-win agendas, where the Cooperative system can meet its purposes with its associates/territories and external investors can address their own ESG agendas.** Good examples are direct credits for inclusive production systems with low interest rates that dialogue with the regionalized characteristics of the biome, or investment in changing energy matrices, such as solar energy.

KEY MESSAGES/HIGHLIGHTS

- *Investments in conventional production systems, including those with a high capacity for environmental degradation, are less bureaucratic, with lower interest rates, and easier to access, than are investments in sustainable practices.*
- *Resources for the implementation of sustainable agendas must reach the local partner with as little bureaucracy as possible, lower transaction fees, and lower interest rates, than conventional credit without sustainable criteria. These characteristics would make investments in sustainable practices competitive and attractive, enabling these practices to gain scale.*
- *Investments in ESG agendas in the Amazon must be made with institutions that know the Amazon ecosystem and its complexities.*
- *The Cooperative Credit system is a solid partner to directly contribute to the vulnerable territories of the Amazon.*
- *The Cooperative Credit system is a solid partner to help investing institutions to achieve results in their ESG agendas.*
- *Sicredi is an important financial arm for joint fundraising for green investments.*

Credits: Freddy Ramirez

CORPORATE-LED SUSTAINABILITY

3

Factors and dynamics shaping the business environment for gold production in Bolivia

Alfredo Zaconeta Torrico[1]

Researcher at the Center for the Study of Labor and Agrarian Development (CEDLA) [1]

LOCATION

Bolivian Amazon region

CASE STUDY

Cooperative mining sector in the exploitation of gold in the Bolivian Amazon, concentrated in the province of Larecaja, in the department of La Paz, extending along the Madre de Dios river to the departments of Beni and Pando, with a predominance of cooperative mining operators

MAIN LIMITATIONS

The increase in the international price of gold in the context of the **lack of policies** that would allow a favorable use of this new commodity super-cycle unleashed a suite of problems in Bolivia

MAIN CHALLENGES

Lack of governance and local institutional presence led to a **proliferation of illegal mining**. In the absence of employment opportunities in the producing regions, locals and outsiders began to work in gold mining, most of them in **precarious, unhealthy conditions** and without labor rights

KEY LESSONS LEARNED

The viability of mining in Bolivia **depends on a leading and effective role of the State,** through regulations and policies that will result in delimiting the expansion of the mining frontier, controlling the impacts of mining activity, allowing for greater revenue collection for the different levels of government

keywords:

- MINING
- GOLD TRADING
- STATE REGULATIONS
- LOCAL RIGHTS

ABSTRACT

The sustained increase in the price of gold on the international market in the last decade had a negative impact on Bolivia; contrary to expectations, this increase resulted in social, environmental, and economic conflicts. Far from allowing effective governance or attracting foreign private investment for its exploitation, this scenario significantly expanded and consolidated the poorly-regulated cooperative mining sector in the exploitation of gold in the Bolivian Amazon, to the detriment of the State and the producing regions. Paradoxically, this trend was encouraged by the government in power, which has a political ally in the cooperative mining sector, for whom the Amazon is a source of wealth. The viability of gold mining in Bolivia depends on a leading and effective State role to provide regulations and policies that delimit the expansion of the mining frontier, control the impacts of mining, allow for greater revenue collection for the different levels of government, safeguard workers, and respect the rights of Indigenous peoples.

Check out the complete Latin American Business Environment Report released in 2022

INTRODUCTION

Following the COVID-19 pandemic, mining has regained its leading role worldwide, especially in Latin American countries with a strong mining tradition; at the same time, this activity was boosted in non-traditional countries. **The cycles of the Latin America economy continue to be linked to the price of minerals due to its enormous weight in exports, potential attractiveness for foreign investment, and as one of the main sources of foreign exchange[1]; however intensification of this model has significant environmental consequences[2].**

This new economic context or commodity supercycle[3] is driven by the demand of the major economies for critical minerals, under the slogan of climate change and energy transition, seeking to reduce carbon dioxide emissions and move towards the fourth industrial revolution. However, this fact could not displace the importance of gold, whose demand and international price increased, due to its particularity within the international economy. Gold once again became a highly valuable refuge asset for businessmen and countries when productive activities became unprofitable due to the economic crisis or in the face of the volatility of international currencies.

This demand led to an intensification of gold mining not only in the traditional regions, but also motivated expansion of this extractive activity into regions that were not considered mining areas, with a massive presence of mining cooperatives, private capital of dubious origin, and ambiguous and permissive mining regulation that encourages its expansion. In this context, gold mining in Bolivia has migrated from the west of the country and taken hold in the Bolivian Amazon, concentrated in what is currently the province of Larecaja, in the department of La Paz, extending along the Madre de Dios river to the departments of Beni and Pando, with a predominance of cooperative mining operators.

There are different, often divergent positions in the debate on the relevance of this large increase in mining activities in the Bolivian Amazon, but the questioning of the lack of government policies that delimit this activity is widespread, demanding actions to minimize the negative impacts.

CONTEXT

In 2020, as a result of the economic disruption caused by the Covid-19 pandemic, India -the largest market for gold mined in Bolivia- went into a crisis due to the national confinement, which even forced the closure of Zaveri Bazaar in Bombay, India's largest gold market. According to World Gold Council data, during the pandemic gold consumption in India fell by 56% in the first half of 2020[5]; the worst scenario was recorded in the April-June quarter when demand fell 70% (63.7 T), the lowest since the 2008 financial crisis[6]. This scenario changed drastically in the first quarter of 2021[7], registering an import of 160 T in March, with an increase of 471% compared to the same month of 2020.

These figures are important for Bolivia, considering the sales percentages represented by gold exports to India, the world's second largest gold consumer, after China. As a result of these processes, **gold became the protagonist of the national economy[8]** in the first eight months of 2021; metallic gold exports totaled $US 1,640 million, displacing natural gas sales – to Argentina and Brazil – which barely reached $US 1,472 million.

BOLIVIAN GOLD IN THE WORLD MARKET

In 2020, according to data from the Ministry of Mining and Metallurgy (MMM), Bolivia exported a total of 15.019 Fine Metric Tons (TMF) of minerals (metallic, refined and alloys), for an amount of $US 1.550 billion. Of this figure, exported gold represents 79.6% with a value of $US 1.234 billion.

In the same year, the gold production in Bolivia reached 23.2 T, of which 97.8% was exported to seven countries located in Asia (85%), Europe (6,4%) and America (5,1%): India (58%), United Arab Emirates (22%), Hong Kong (8%), Turkey (6%), United States (4%), and Italy (1%)[9].

In Bolivia, eight of the nine departments have gold mining, however, only three of them stand out and concentrate 95% of the national production: 72% from La Paz with 16,750 Kilos Finos (KF), followed by 19% from Beni with 4,402 KF, and 4% from Cochabamba with 1,037 KF.

GOLD TRADING

In 1985, Supreme Decree DS 21060[10] established the free export and import of gold; the role of the State was reduced to that of an overseer in the chain of commercialization and export of the golden metal. The weakness of the State did not allow it to play a direct role in the exploitation of gold, despite several initiatives to exercise greater control over production and commercialization.

The rise in the price of gold in 2010 brought with it allegations of smuggling of gold mined in the Bolivian Amazon region, which still persist. A representative case of this was recorded in 2012, when the government officially reported[11] production of 12 T, and exports reached 26.9 T. This fact gave rise to the presumption of gold smuggling from Peru[12]. It was subsequently asserted that gold smuggling to Bolivia was also coming from Brazil[13]. In 2018,

[1] Svampa, M. (2013). "Commodities Consensus" and valuation languages in Latin America. January 25, 2022, by NUSO Website: https://nuso.org/articulo/consenso-de-los-commodities-y-lenguajes-de-valoracion-en-america-latina/

[2] Gardner, T. (2022). Is the world entering a commodity supercycle? February 2, 2022, from SEI Website: https://www.sei.org/perspectives/mundo-entrando-superciclo-materias-primas/

[3] Bloomberg. (2021). A new commodity supercycle? February 2, 2022, from Bloomberg Website: https://www.bloomberg.com/latam/blog/un-nuevo-superciclo-de-materias-primas/

[4] Perlaky, A.. (2020). Gold falls as positive news dominates the markets. February 15, 2022, from Gold Hub Website: : https://www.gold.org/goldhub/gold-focus/2020/11/gold-falls-positive-news-dominates-markets

[5] France 24. (2020). In India, gold stops glowing. February 15, 2022, from France 24 Website: https://www.france24.com/es/20200816-en-india-el-oro-deja-de-resplandecer

[6] Gold Information. (2021). India's gold demand recovery is a fact: up 471% in March. February 15, 2021, from Gold Information Website: https://oroinformacion.com/la-recuperacion-de-la-demanda-de-oro-de-la-india-es-un-hecho-un-471-mas-en-marzo/

[7] According to data from the Bolivian Institute of Foreign Trade (IBCE).

[8] Based on data from the Mining Statistical Yearbook 2020, Ministry of Mining and Metallurgy

[9] DS 21060 in Bolivia represented the beginning of the neoliberal period..

[10] National Customs and the Ministry of Mining and Metallurgy

[11] Cawley, M. (2014). Illegal miners from Peru traffic gold to Bolivia. February 16, 2022, from InSight Crime Website: https://es.insightcrime.org/noticias/noticias-del-dia/mineros-ilegales-peru-trafican-oro-bolivia/

[12] Brazil and Peru are trafficking illegal gold in Bolivia for export to the world, in https://www.boliviaenergialibre.com/mineria/brasil-peru-trafican-oro-ilegal-bolivia/, revised February 16, 2022.

[13] Brazil and Peru are trafficking illegal gold in Bolivia for export to the world, in https://www.boliviaenergialibre.com/mineria/brasil-peru-trafican-oro-ilegal-bolivia/, revised February 16, 2022.

an intelligence report of the Peruvian Police[14] asserted that the gold that was illegally extracted from the Madre de Dios River was leaving through Brazil and Bolivia[15].

EBO and COMERMIN short term experiences

In order to establish the presence of the State, in 2010 the Bolivian Mining Corporation (COMIBOL) through General Directory Resolution No. 4424/2010, created the Bolivian Gold Company (EBO) to buy all the country's gold production, with a fair remuneration to the cooperative members, and deliver it to the Central Bank of Bolivia (BCB) in order to prevent it from being smuggled out of the country. At the same time, it sought to formalize the gold mining cooperatives.

Table 1: Purchase of gold and royalties generated by ebo

YEAR	PURCHASE KG	ROYALTIES $US
2010	0.81	532
2011	120.90	90,482
2012	70.30	53,324
2013	198.00	177,441
2014	98.12	108,865
2015	27.41	32,650
TOTAL	515.54	463,294

Source: COMIBOL

The main critic of EBO was the gold mining cooperative sector, who claimed that EBO did not have the capacity to compete with the prices of private traders because it did not have the economic capital[16] to stockpile all the gold produced.

Another factor that limited the state gold company was the disbursement of $US 12.4 million from the Mining Financing Fund (FOFIM), in favor of the National Federation of Mining Cooperatives (FENCOMIN), to create the Integral Center for Commercialization of Minerals from Mining Cooperatives (COMERMIN). As of 2017, it was established that the amount COMERMIN accessed as a loan from FOFIM reached US$ 12 million, of which it still has US$ 10 million outstanding, making it the largest debtor to this Fund.

In 2019, the diagnosis carried out by the Technical Office for the Strengthening of the Public Enterprise (OFEP), under the Ministry of the Presidency, identified that EBO did not function as a company, but as a project to prevent gold smuggling, which functioned as a unit with four officials within COMIBOL payrolls. However, at the beginning of 2021, Ramiro Villavicencio, Minister of Mining and Metallurgy, announced the "consolidation of the Bolivian Gold Company (EBO),"[17] with the same objectives.

Mining traders and domestic smuggling of gold

In March 2019, the Regional Federation of Gold Mining Cooperatives (FERRECO) made public its intention to stockpile all the gold produced in La Paz and sell it directly to India. The announcement was made by its president, Armando Saravia, after a meeting with businessmen from India, where it was proposed to align all the gold cooperatives operating in La Paz, dispensing with the mineral traders. As justification, the cooperativists denounced that the traders did not pay the 1.8% fee for insurance from the National Health Fund (CNS) nor the 0.35% for the Federations of the department of La Paz, but instead diverted the gold produced in La Paz and declared it as the production of Beni.

The complaint forced the Ministry of Mining and Metallurgy (MMM) to request that eleven traders declare the origin of the gold they were receiving. This scenario was aggravated by the unusual growth in gold production volumes in the department of Beni, without any valid technical explanation. These facts apparently occurred with the intention of evading compliance with Ministerial Resolution 165/2017[18].

For its part, the Governor's Office of La Paz in 2013 denounced that 25 mineral traders illegally diverted royalties in favor of the Departmental Government of Beni during the period. The departmental authorities pointed out that between 2017 and 2018, mining royalties in La Paz were reduced by 22%, while those of Beni rose by more than 100%. Between January and February 2019, La Paz collected 24 million bolivianos (Bs.) for royalties and Beni Bs. 22 million, even though there were 1,239 mining cooperatives registered in La Paz but only seven in Beni (according to data from the Vice Ministry of Mining Cooperatives, as of 2019).

FERRECO's intention to export directly to India did not materialize.

PRODUCTION AND TAXATION

The exploitation of gold in Bolivia since 2010 has led to conflicts of interest among operators for access to revenues and exploitation areas. It also led to the proliferation of illegal mining, smuggling, speculation and subsidies on fuel, environmental conflicts, and the illegal presence of foreign capital (Chinese and Colombian)[19].

According to the 2019 report of the World Gold Council (WGC)[20], Bolivia ranked among the 50 countries with the largest gold reserves in the world, while, at the Latin American level it ranked fifth, holding 22.5% of total reserves (42.5 tons equivalent to about $US 1,802 million). In the same period, the level of gold production in Bolivia reached an all-time high of 42 MTF.

[14] SPDA. (2015). The Illegal Gold Routes. Peru: SPDA.

[15] El Deber. (2018). Peru points to Bolivia as illegal mining gold route. February 16, 2022, from El Deber Website: https://eldeber.com.bo/mundo/peru-senala-a-bolivia-como-la-ruta-del-oro-de-la-mineria-ilegal_95494

[16] EBO's available capital amounted to $US 5.7 million.

[17] Ministry of Mining and Metallurgy. (2021). Ministry of Mining and Metallurgy announces the reactivation of strategic companies for Bolivia. February 16, 2022, from MMM Website: http://www.mineria.gob.bo/documentos/noticias.

[18] This Resolution stipulates that if a cooperative exploits a marginal deposit with artisanal techniques, it cannot extract more than 20 kilos per month and only one person can sell the gold on behalf of the cooperative.

[19] Problems in the Exploitation, recovery and commercialization of gold in the Department of La Paz, Gobernación del Departamento de La Paz, 2020.

[20] World Gold Council https://www.gold.org/goldhub

Table 2: Gold production, exports and royalties 2010 - 2020

YEAR	Volume produced in Tons	Production Value in Million $US	Volume exported in Tons	Export value in Million $US	Royalty Payments in Million $US
2010	6.3	252	3.6	142	6.654
2011	11	558	6.7	284	6.662
2012	12	644	26.9	1,121	7.804
2013	13.4	604	13.2	577	13.693
2014	34.8	1,424	33.7	1,383	38.891
2015	22.2	824	19.9	746	22.430
2016	21.8	877	19.2	770	22.032
2017	28.7	1,168	26.3	1,066	31.620
2018	31.5	1,284	28.8	1,171	38.307
2019	42	1,899	39	1,739	49.721
2020	23.2	1,263	22.7	1,235	34.117

Source: Prepared by CEDLA, with data from MMM

The 2020 containment measures partially paralyzed gold mining operations by limiting the circulation and supply of fuel to the operations, mainly in La Paz and Beni.

COOPERATIVE MONOPOLY

In 2012, the production value of mining cooperatives reached 10.2 T, 85% of national production. This percentage significantly increased in the following years. Between 2013 and 2018, mining cooperatives reached 99% of national production.

Table 3: National production of gold cooperatives

Year	National Production (tons)	Cooperative Production (tons)	Cooperatives Participation
2012	12	10.2	85%
2013	13.4	13.3	99.2%
2014	34.8	34.6	99.4%
2015	22.2	22	99%
2016	21.8	21.7	99.5%
2017	28.7	28.5	99.3%
2018	31.5	31.2	99%
2019	42	41	97.6%
2020	23.2	21.8	94%

Source: Prepared by CEDLA, with data from MMM and SENARECOM.

In 2020, 21.8 T of the 23.2 T of national production were produced by cooperatives, representing 94%. However, the bonanza in gold production does not correspond with its levels of taxation contributing to the coffers of the different levels of government (national, departmental and municipal). In 2020, the value of national gold production reached $US 1,263 million and royalties were only $US 34 million, i.e. 2.7%.

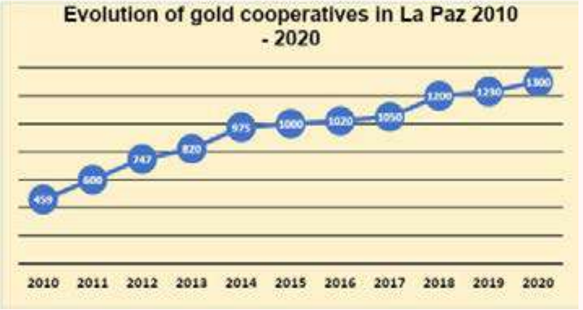
The explanation of this low collection lies in Law 535, enacted by Evo Morales, which took the parameters set by Law 1777 of Gonzalo Sánchez de Lozada, far from the current mineral price averages. Law 1777 established a 7% tax rate for when the international price of gold was equal to or higher than $US 700 per troy ounce; the current price is around $US 1,800 per troy ounce. This margin was consolidated by law 535[21], and the cooperatives also obtained a reduction of the tax rate to 2,5% for production from marginal deposits[22].

EMPLOYMENT IN THE MINING SECTOR

Despite the intensification of extractive activities in Bolivia, the generation of formal employment from these activities is still limited. In the case of mining, the lack of Foreign Direct Investment (FDI) and the lack of a mining policy that strengthens state mining has made them incapable of generating sources of employment. This has led to a significant expansion of the cooperative mining sector, consolidating it as the sector that generates the most jobs. By 2020, nine out of every ten jobs in the mining sector were in cooperative mining (Figure 1).

According to the International Labor Organization (ILO), mining cooperatives are the informal mining sector and are therefore more vulnerable to occupational accidents due to the precarious conditions in which they operate (Figure 2).

Mining sector employment from 2005 to 2020. [Fig. 1]
Source: Elaborated by CEDLA, with data from MMM.



Evolution of cumulative number of gold cooperatives 2010-2020. [Fig. 2]
Source: Prepared by CEDLA, with data from the Autonomous Departmental Government of La Paz.

Zaconeta, A. (2021). Gold in Bolivia, bonanza that does not shine. February 18, 2022, from CEDLA Website: https://cedla.org/publicaciones/ieye/boletin-perspectiva-energetica-n-24-el-oro-en-bolivia-bonanza-que-no-brilla/ [21]

A marginal deposit is understood as a poor deposit, where the mineralogical resource cannot be exploited by massive mechanized means or involving high technology, but only by artisanal means. [22]

According to information from the Government of La Paz, in 2010 459 gold mining cooperatives were registered in the department; a decade later, in 2020, the number increased to 1,300. It is estimated that more than 130,000 people are employed, a figure higher than the 120,263 places of employment registered by the Ministry of Mining and Metallurgy. Due to the lack of formal employment in the producing regions, locals and outsiders have entered the gold mining industry. The figure shows the sustained growth of this sector, which occurred along with the increase in the international price of gold.

MINING INVESTMENT IN DECLINE

Foreign mining investment in Bolivia is not only stagnant compared to projects executed by private companies in Peru and Chile, but has been steadily decreasing since 2017 (Figure 3). This paradox of stagnation in the mining sector, in a scenario of high prices, involves private and state mining operators in Bolivia. Policy and governance may help to explain this paradox. According to the rating given by the Fraser Institute (Canada), in 2020[23] Bolivia ranks 74th out of the 77 territories analyzed, under the items it measures:

- ***Mining Potential Best Practices Index, which ranks countries and territories according to their geological attractiveness.***
- ***Mining Policy Perceptions Index and the effects of government policy on exploration investment.***

In Fraser's view, "the political climate of a region" is of vital importance in attracting and winning investment. In the case of Bolivia, the lack of a clear and effective mining policy led to a sustained drop in private investment since 2008, when it reached US$ 478 million. In the case of state investment, the highest investment was reached in 2015 with $US 188 million.

[Fig. 3] | Mining sector investment 2006 - 2020.
Source: Elaborated by CEDLA, with data from MMM

This already negative scenario in investments, both state and private, fell drastically in 2020. The state-owned investment dropped to $US 56 million and the private investment to zero, a factor that complicates the situation of the national mining industry. In both cases, the amounts invested between 2006 and 2020 are not reflected in the development of new projects.

After the San Cristobal mine started operations in 2006, Bolivia has not registered any new mining project that has been launched. The projects presented in international forums such as the PDAC[24] failed to attract the attention of investors. The lack of interest on the part of private companies to invest in Bolivia is due to the lack of serious projects with proven reserves, developed through studies and endorsed by COMIBOL or by the Geological Mining Service (SERGEOMIN).

In the case of gold, there is no official updated information available on private investments in Bolivia; the main cause is the predominance of the cooperative mining sector.

Faint governmental intentions to intervene in gold exploitation

In 2020, during the government of Jeanine Añez, COMIBOL proposed two state gold projects. The first proposal was to create the Empresa Minera de la Amazonia[25] with an investment of $US 500 million, projected revenue of $US 37 million per year, annual tax payments of $US 187,000 and profit of $US 312,000, all this with an average quotation of $US 1,000 per troy ounce.

The second, the start-up of the Amayapampa project in northern Potosi, with an investment of $US 400 million, proposed the payment of annual royalties of $US 7.2 million, taxes of $US 36 million and a net income of US$ 50,000 per year, with an average gold price of US$ 1,200 per troy ounce.

Both initiatives were discarded during the government of Luis Arce (MAS). In the case of Amazonia, all gold exploitation was left in the hands of the cooperatives, and in the case of Amayapampa, the decision was made to hand over this deposit to the Chinese-Canadian transnational mining company, Phoenix Mining S.A.[26]

In May 2021, the government, through the MMM, proposed the creation of a state company in charge of commercializing gold, making this process transparent and recovering income to increase the royalties received by regional and local administrations. On that occasion, Minister of Mining and Metallurgy Villavicencio acknowledged that illegal exports could amount to more than 30 tons, equivalent to more than $US 1 billion[27]. The project planned to open branches in gold producing regions and municipalities, in the north and south of La Paz, in the departments of Beni, Pando, Cochabamba, Potosí and Santa Cruz.

Private investment in Gold

Historically, the relationship between private investment (foreign or domestic) and the State, particularly in gold mining, has not been positive, and in several cases has had regrettable consequences. In general, this was a consequence of the investors' non-compliance with their commitments to the communities; in other cases, due to the impacts caused in neighboring communities or their administrative volatility and inability to face moments of crisis in the market. Some examples:

Amayapampa and Capasirca

Located in the north of the Department of Potosí, it was linked to different international private operators, who failed to consolidate its exploitation.

[23] | Fraser. (2020). Annual Survey of Mining Companies, 2020. February 28, 2022, from Fraser Institute Website: https://www.fraserinstitute.org/studies/annual-survey-of-mining-companies-2020

[24] | Prospectors and Developers Association of Canada (PDAC)

COMIBOL, Public Accountability, final 2019 - initial 2020. | [25]

[26] | Comibol. (2021). COMIBOL and Phoenix Mining S.A. sign mining production contract for the Amayapampa gold deposit . February 14, 2022, from COMIBOL Website: http://www.comibol.gob.bo/index.php/ultimas-noticias/402-comibol-y-phoenix-mining-s-a-firman-contrato-de-produccion-minera-para-el-yacimiento-aurifero-de-amayapampa

[27] | Gold Information. (2021). Bolivia to create gold trading company to prevent smuggling. February 15, 2022, from Gold Information Website: https://oroinformacion.com/bolivia-creara-una-empresa-comercializadora-de-oro-para-evitar-el-contrabando/

- ***Vista Gols Co. Da Capo:*** *in 1996 was the protagonist of the "Christmas Massacre" with the death of eleven miners.*
- ***Nueva Vista:*** *problems with community members and economic problems postponed until 2011.*
- ***Republic Gold Limited:*** *in 2012 proposed a partnership to Comibol; no response was received.*
- ***LionGold Corp. Ltda:*** *in 2014 abandoned the area owing salaries and social benefits to workers.*
- ***COMIBOL*** *in 2016 reverted until 2021, without having achieved its sustained exploitation.*
- ***Phoenix Mining S.A:*** *in 2021 took over Amayapampa through a 15-year contract, committing an investment of US$ 200 million.*

Newmont Corporation, Inti Raymi – Kori Chaca and Kori Kollo

Its open-pit gold mining operations were developed in the department of Oruro. Both projects (Kori Chaka and Kori Kollo) belonged to the North American transnational Newmont Corporation. In 2009 the company announced the transfer of Inti Raymi to Compañía Procesadora de Minerales SA. Both operations had several complaints of environmental contamination, which were subjected to an environmental audit, which failed to provide information on whether there should be any compensation to the affected communities for the loss of fresh water, healthy soils, fish, and fodder for livestock.

Orvana Minerals Corp., Mining Paititi – Don Mario

Located in the municipality of San José of Chiquitos in the department of Santa Cruz, this subsidiary of the transitional Orvana Minerals Corp. began operations in 2003. In 2018, EMIPA's operations were challenged by the inhabitants of the Turubó Community Land of Origin, demanding compensation for the impact of open-pit mining. In November 2019, it stopped its operations; with this suspension 220 workers were laid off, despite the fact that EMIPA had guaranteed their job stability until 2026. As a result, the workers began to mobilize for their reinstatement.

Eagle Crest – San Simón

The Canadian-owned company has its operations in the San Simón mountain range, in the Iténez province of Beni, a philonian gold deposit. An inspection carried out by the Ministry of Cooperatives in 2010 confirmed the presence of 10 mining cooperatives operating in the area without finding Eagle Crest's operations. In 2021, an inspection by the Beni Departmental Legislative Assembly verified that this company continued operating and suspected tax evasion for the exploitation of gold that would leave San Simón, Beni, to Santa Cruz and from there to markets in Belgium and China[28].

Mining cooperatives and illegal capital in the north of La Paz

The gold potential of the Larecaja province was a point of attraction in the Republic, particularly at the beginning of the 20th century with the presence of foreign capital such as Bolivian Gold Exploration (BOLGO) and later with the Aramayo Mining Company. Private presence in the area was reduced after the nationalization of the mines in 1952 and mining operations passed into the hands of mining companies and, with greater emphasis, mining cooperatives, predominant actors that have multiplied to the present day. Currently, authorities of Teoponte and Guanay denounce the presence of Chinese and Colombian capital[29], associated with mining cooperatives to exploit the Kaka and Beni rivers by means of dredges, a fact confirmed by the Governor's Office of La Paz[30]. Foreign investment in these areas translates into giant dredge structures in the rivers, with great environmental impact due to the use of mercury, intensive deforestation, and diversion of rivers, without the presence and control of the State.

[28] Página Siete. (2021). Procuraduría to investigate Eaglecrest for gold exploitation in Beni. February 28, 2022, from Página Siete Website: https://www.paginasiete.bo/economia/2021/4/18/acuden-procuraduria-para-investigar-eaglecrest-por-explotacion-de-oro-en-beni-292219.html

MINING REGULATORY FRAMEWORK

As a result of the application of the New Economic Policy[31], implemented by the Supreme Decree 21060 as an approach to face the economic recession that Bolivia was going through, different regulatory measures were established, which reduced the role of the State in the mining activity until it was eliminated.

These norms were gathered in the Mining Law (1777), described by social sectors and civil society as "neoliberal and privatizing."[32] With the inauguration of Evo Morales in 2006, a modification of the structure of this law was demanded. To achieve this, it was necessary to modify the Political Constitution of the State (CPE), which was promoted through a Constituent Assembly. The new CPE, enacted in 2007, incorporated several articles referring to mining activity, the environment, and the role of mining operators and their recognition. These include aspects such as:

- *The state mining industry, private mining industry, and cooperative societies are recognized as productive actors.*
- *The non-metallic natural resources existing in the salt flats, brines, evaporites, sulfurs and others, are of a strategic nature for the country.*
- *The State shall be responsible for the direction of the mining and metallurgical policy.*
- *The State shall exercise control and supervision throughout the mining production chain.*
- *The State shall promote and strengthen mining cooperatives.*

Tax regulations

In practice, Law 535 established a differentiated regulation with privileges for some operators, thus an asymmetrical tax regime.

All mining operators should be taxed:

- *Transaction Tax (IT) 3% by transaction value*
- *Value Added Tax (VAT) 13% (Except cooperatives)*
- *Corporate Income Tax (IUE) 25% and a surcharge of 12.5% in periods of high prices, for a total of 37.5%. (Except cooperatives)*
- *Royalty: compensation for the exploitation of mineral resources and non-renewable metals, regulated by Law 535 (aliquot according to the mineral).*

[29] ANF. (2018). Chinese and Colombian capital exploit gold in partnership with mining cooperatives. February 27, 2022, from ANF Website: https://www.noticiasfides.com/economia/capitales-chinos-y-colombianos-explotan-oro-en-sociedad-con-cooperativas-mineras--388864

[30] SDMMHLP. (2018). Denounces, gold extraction is in Chinese and Colombian hands. February 27, 2022, from Gobernación de La Paz Website: https://mineria.lapaz.gob.bo/inicio/ver_id/50

[31] Aguirre, A. Villegas, C. Pérez, J.L. (1990). NPE: economic recession. La Paz, Bolivia: CEDLA.

[32] CEDLA. (2015) The Mining Law: Use the term SOCIAL to avoid paying taxes, Website: https://cedla.org/analisis/analisis-nuestra-voz/carlos-arze-vargas-la-ley-de-mineria-utiliza-el-termino-social-para-evitar-pagar-impuestos/

These taxes contemplate criteria that differentiate operations according to their size, as well as the nature of their operator (state, cooperative or private). Cooperatives pay a lease fee, not as a tax, but as a fee for COMIBOL's mining concessions, which represents 1% of the production value. In practice, this scenario encourages the proliferation of cooperatives in the country. Many private operators are listed as cooperatives and avoid their fiscal, labor, and environmental responsibilities.

This scenario was consolidated with the enactment of the Mining Law, where gold pays less royalties under the current Mining Code approved by the government of Evo Morales (Law 535) than under the neoliberal Mining Code of Sánchez de Lozada (Law 1777). Under Law 535, cooperatives under Art. 227 pay a 2.5% tax rate for gold in its natural state or in flake form, if coming from marginal deposits. Under Law 1777, gold mining paid 7% and 5% tax respectively. Of this 2.5% tax rate that the mining cooperatives benefit from, they only pay 1.5%, since those who commercialize the gold in the domestic market pay 60% of the royalty, leaving the balance of 1% to the buyer.

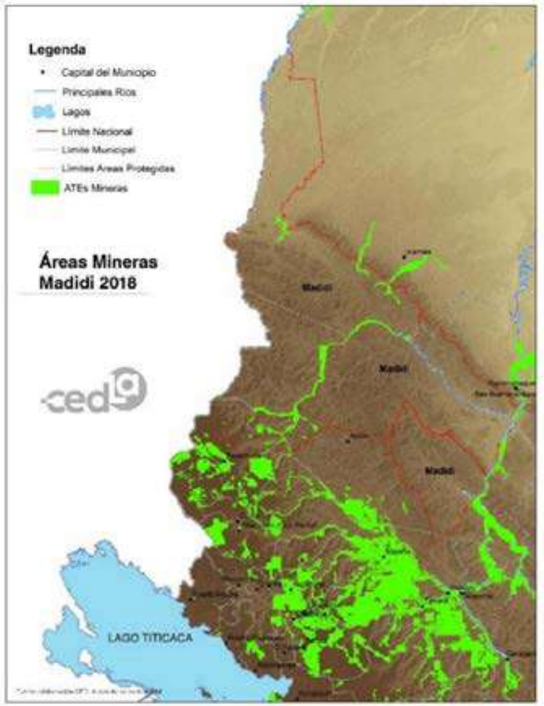
Mining cooperatives, due to their "social status," are exempt from paying the Corporate Income Tax (IUE), which means that the exploitation of gold in the country does not pay IUE.

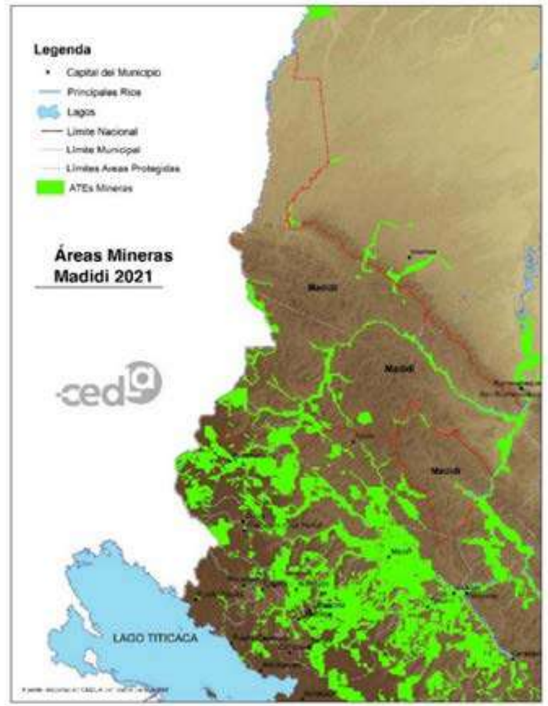
Environmental Regulation

At the beginning of 2015, the Ministry of Mining and Metallurgy issued a new "Regulation for Granting and Termination of Mining Rights." With it, the number of requirements, deadlines and technical quality were reduced, particularly for the mining cooperative sector. Public Consultation was also limited.

In August 2016, the cooperative miners raised a list of ten demands, among them, the relaxation of environmental regulations. Their demand was met through Supreme Decrees DS 3549 and 3856. Both decrees made it more flexible to obtain an environmental license. DS 3549 modified the environmental form for an "environmental categorization form," which requires less information at the time of processing. DS 3856 exempted category four projects[33] in urban areas from environmental licensing, and in the case of protected areas, the only requirement was to communicate the start of activities, attaching the Certificate of Compatibility of Use issued by the National Service of Protected Areas (SERNAP).

These measures encouraged the proliferation of mining activities, particularly in the north of La Paz, including Madidi, declared as a National Park and Integrated Management Natural Area[34]. The green spots in the following maps show graphically the expansion of mining activities between 2018 and 2021.





Source: Prepared by CEDLA with AJAM data.

[33] City constructions such as street paving, small bridges or school sports fields, among others listed in decree 3549.

[34] Madidi National Park and Integrated Management Natural Area was formally created by D.S. 24123 of September 21, 1995, with an area of 1,880,996 ha.

CONCLUSIONS AND RECOMMENDATIONS

The increase in the international price of gold in the context of the lack of policies that would allow a favorable use of this new commodity super-cycle unleashed a suite of problems in Bolivia. Regions that were not traditionally considered mining regions, such as the Amazon, were subjected to mining activity, through privileged mining operators, with a constant environmental flexibilization. This has led to an excessive increase in the use of mercury and cyanide in the areas currently exploited, massive deforestation, and ease of obtaining environmental licenses, even in protected areas.

The lack of governance and local institutional presence led to a proliferation of illegal mining. Furthermore, in the absence of employment opportunities in the producing regions, locals and outsiders began to work in gold mining, most of them in precarious, unhealthy conditions and without labor rights.

Private and state investment in the gold sector is almost nil, with timid state investments, leaving the way open to cooperative operators. The experience of the private sector in the exploitation of gold deposits in Bolivia has not been positive, with tragic results, environmental debts, massive unemployment, leaving little credibility for foreign private investment. The current government's policy opts for obtaining short-term economic income, ignoring the precepts that once allowed them to come to power, even if this means massive pollution, deforestation, and proliferation of illegal activities, increasing inequalities instead of reducing them.

The viability of mining in Bolivia, particularly gold mining, depends on a leading and effective role of the State, through regulations and policies that will result in delimiting the expansion of the mining frontier, controlling the impacts of mining activity, allowing for greater revenue collection for the different levels of government, as well as improving working conditions and respecting the rights of indigenous peoples settled throughout the Amazon.

Mining and Sustainable Development in the Amazon: Corporate Social Responsibility by Alcoa and IJUS in Juruti, Brazil

Elber Neto Lima Diniz[1], Denyse M Gomes Mello[2]

Secretário Executivo do IJUS, [1]
contato@ijus.org.br;
elberdiniz17@gmail.com

Gerente projeto PPA [2]
denyse@ppa.org.br;
Courtesy Faculty member of the Tropical Conservation and Development Program in the Center for Latin American Studies at the University of Florida
denysemello@gmail.com

LOCATION

Juruti, Pará, Brazil

CASE STUDY

Instituto Juruti Sustentável – IJUS

INNOVATION

Applying **participatory dialogue** to align its activities with the **needs and interests** of those within the territory, and sharing responsibility for development with local leaders and organizations to generate **strategic impacts** that effectively address the challenges of the local population

MAIN LIMITATIONS

Complex **governance structure** that needs to be effectively **communicated internally and externally**, where the **autonomy** of each council is respected and the councilors contribute to the discussion of agendas

MAIN CHALLENGES

Maintain the **good level of engagement** of the participating organizations. Of the 117 member institutions, 40 are selected to work directly on the councils for each biennium

KEY LESSONS LEARNED

IJUS model is **replicable by other companies** that invest in large projects and are **committed to the sustainable development** of the impacted territories, being a tested and proven model

keywords:
DIALOGUE
MAJOR PROJECTS
SUSTAINABILITY
IJUS

ABSTRACT

Sustainable development is one of the great challenges in territories with large-scale industrial projects in the Amazon. Instituto Juruti Sustentável – IJUS is a Corporate Social Responsibility experience of the Alcoa company that offers results and practical lessons for building paths to sustainable development. Its main focus is the creation of ecosystems for mutual cooperation within the community and the integrated and effective action of partnerships, which are essential for achieving results. By using participatory dialogue to align its activities with the needs and interests of those within the territory, and sharing responsibility for development with local leaders and organizations, it is possible to generate strategic impacts that effectively address the challenges of the local population. Creating an environment of participatory dialogue to search for solutions, and implementing those by fundraising and strategic investments, are fundamental for the achievement of sustainable development.

KEY MESSAGES

1 The search for **community autonomy** is fundamental for sustainability

2 **Horizontal dialogue is essential** for sustainable development

3 Partnerships are **fundamental** for the success of IJUS actions; the complexity of the Amazon territory demands **strategic partnerships** in several segments

4 Focus on **relationships and interests, and the roles of multiple actors**, in order to develop appropriate institutional arrangements for development cooperation.

5 Development **requires time for effectiveness**, and it is important to incorporate feedback and adapt over time

Check out the complete Latin American Business Environment Report released in 2022

INTRODUCTION

Sustainable development is an essential goal in today's world and is particularly complex and challenging in the Amazon. Any large industrial project brings new opportunities for the generation of employment, economic growth, and creation of new businesses. It also brings challenges to make such development sustainable for local communities: exponential population growth, farmers moving to the city in search of work, and managing the territories directly and indirectly impacted by mining.

The question addressed by this case study is: **how to develop an innovative model aimed at the effective implementation of sustainability goals in a local context affected by large-scale mining?** We present in this document the history of a Corporate Social Responsibility (CSR) process implemented by the Alcoa company and partners such as Fundação Getúlio Vargas - FGV and the Brazilian Fund for Biodiversity - FUNBIO in the municipality of Juruti, Pará, Brazil.

Based on the experience of its authors as leader and institutional partner of the IJUS initiative, this case study presents the evolution of this initiative in different stages, explains how the Theory of Change was developed, and concludes with lessons and recommendations for the implementation of participation-based CSR initiatives.

CONTEXT

The Municipality of Juruti is located in the west of the state of Pará in the Brazilian Amazon. It has an area of over 8,300 km² and approximately 60,000 inhabitants, 60% of which are in the rural region. Family-based agriculture is the main source of food security, income, and employment. Juruti has great challenges to overcome in the coming years, as shown by the fact that it occupies the 117th position in the ranking of social progress among the 772 municipalities in the Brazilian Amazon. Critical points include low access to basic sanitation, few households with access to adequate electricity, low internet access, limited public transport, and low access of women to the labor market. On the other hand, it has good access to basic medical care, wildlife refuge and environmental protection areas established, and good access to culture and leisure. In terms of employment, only 10% of the population is formally employed, with informal work and autonomous activities predominant. It has low employability among young people and low access to technical and higher education. However, services and mining are essential in contributing to the generation of employment and income in the municipality.

Juruti has one of the largest deposits of high-quality bauxite in the world, with a reserve of around 700 million metric tons. In 2006, Alcoa Mineradora de Bauxite was installed with a mineral extraction project with an initial capacity of 2.6 million metric tons per year. The industrial plants in the bauxite processing area are located about 60 kilometers from the city. In addition to the mining front, other facilities include a railroad, 50 kilometers in length, with operation of 48 wagons, each with capacity of 80 tons; and the port terminal, two kilometers from the center of the municipality and on the banks of the Amazon River, with capacity to accommodate ships of 75,000 tons.

The installation of a large enterprise like this promises development; however, the path of this development needed to be built. Thus, Alcoa sought partnerships with Fundação Getúlio Vargas - FGV and the Brazilian Fund for Biodiversity - Funbio to build alternatives for sustainable development that, once implemented, would transform Juruti's experience into a national and international reference for sustainability, both for the company and for the society. Based on the results and accumulated experience of the three institutions, as well as the reflections and discussions held and the knowledge acquired throughout the process in Juruti, a local sustainable development agenda for Juruti and surroundings was developed, called the **Sustainable Juruti Tripod.**

CASE STUDY DESCRIPTION

The mining enterprise began in 2006, with many challenges to be overcome. Alcoa and partners sought to establish a space for dialogue with the territory directly impacted and the municipality in general to construct a sustainable development agenda for Juruti and region, as well as its implementation. The innovative model of relationship between the company and the local population was based on a special feature: horizontality; even though it was a new topic for the local community, active listening and participation played a fundamental role in the initial discussion processes.

As a result of the dialogues held between Alcoa, FGV, Funbio and the community, a Sustainable Juruti Tripod of interventions was proposed: Sustainable Juruti Council (CONJUS), Juruti Development Fund (FUNJUS), and JURUTI INDICATORS. At the time, the concept of sustainable development was agreed: "Promotion of the population's quality of life, based on their ability to manage the resources available in a territory – which is not limited to public policies." This definition is linked to collective construction of a program that is aligned with the needs and challenges of the territory, and active participation by local actors in decisions about support and investments for local communities.

In 2008, the Sustainable Juruti Council – CONJUS was formalized, with the integration of strategic local actors based on the principle of diversified collaboration and local knowledge aimed at finding solutions to complex problems. CONJUS is intended to be a public, democratic, and permanent space for dialogue, with a view to discussing a participatory agenda for local development. It has a tripartite structure -- private sector, government, and civil society -- and includes community groups, associations, cooperatives, entrepreneurs, churches, universities, directly or indirectly impacted communities, municipal executive and legislative powers, and the mining company. Themes discussed include the need for health infrastructure, education, basic sanitation, support for traditional communities, studies of value chains, strengthening of organizations, governance, biodiversity conservation, support for family-based agriculture, public security, employment, commerce, culture, youth, community autonomy, among others. The council has autonomy and is responsible for deciding on topics, proposals and investments, therefore, their decisions are vital for the community.

With the intensification of dialogues and the effective participation of local actors, Alcoa and Funbio then created the Sustainable Juruti Fund – FUNJUS, with the objective of financing non-reimbursable projects and programs that integrated social, human, economic and environmental aspects. Thus, Alcoa made a voluntary donation of resources to be invested in the region through the relationship between CONJUS and FUNJUS.

The conception of CONJUS and FUNJUS gave local organizations, communities, and people the opportunity to be protagonists in sustainable development actions in the region. To monitor those actions, the JURUTI INDICATORS were created by the leading scientific and educational organization FGV, creating parameters that could be used to understand the reality of the municipality and follow the social, environmental, and economic changes over the years. In 2009, the first publication of the Indicators took place, with great local and national attention. The Indicators were published again in 2011, but not since. Among the three legs of the Sustainable Juruti Tripod, the JURUTI INDICATORS presented the biggest challenge for its continuity, because it was not created with a tripartite council for its management, being only under the tutelage of the municipal executive power. The challenge of collecting primary data, lack of comparability with other municipalities in the region, and the low local capacity to manage the platform led to the discontinuity of publications. Currently the Amazon Social Progress Index – IPS is used as a parameter, but IPS is based on secondary data and does not reflect the local reality as accurately as the JURUTI INDICATORS. At present, the Indicators are undergoing a reorganization process with the objective of being transformed into a Sustainable Development Observatory.

In 2009, Tripé Juruti Sustentável obtained its first results: supporting 29 projects selected from local organizations, consolidating its governance for the correct use of methodologies and good management practices, and training itself to seek new partnerships and raise funds, as well as producing two publications (2009 and 2011) of the JURUTI INDICATORS. As a result of the dialogues, it was noticed that there was a need, not only for the continuity of the formation of local human capital, but also for the expansion of the formation of leaders. Thus, the School of Sustainability began.

The School of Sustainability was an additional element added to contribute to the continuity in the search for autonomy, protagonism, and training of local leaders. Started in 2012, Alcoa, in partnership with the civil society organization Instituto Peabirú, developed a training methodology whose main focus was project construction and fundraising. As a result, a first cohort of 30 managers and local leaders were trained to work directly in the various local organizations.

In the years 2014/2015, the Sustainable Juruti Tripod (CONJUS, FUNJUS and INDICATORS) was facing one of its biggest challenges, the need to bring the three structures closer together geographically (FUNJUS had been based in Rio de Janeiro) and with greater local leadership. Thus, Alcoa, FGV, Funbio and the Community began movement towards integration and effective appropriation by the local community of the Sustainable Juruti Tripod. This effort culminated in the merger of CONJUS, FUNJUS and INDICATORS in

[Fig. 1] | Sustainable Juruti Tripod. Source: ALCOA 2020

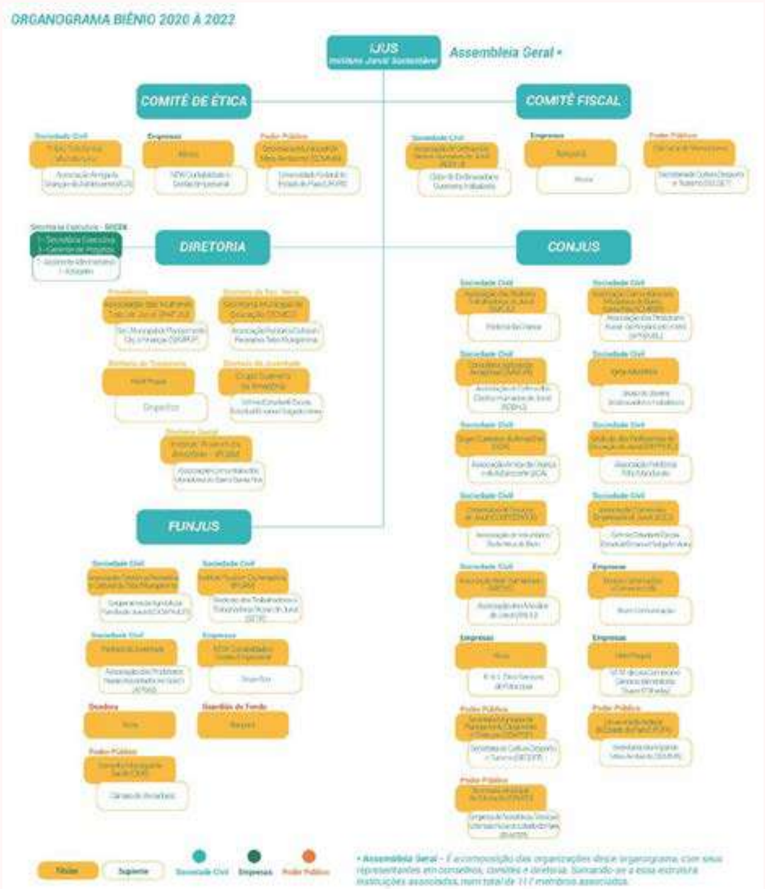
November 2015, creating the INSTITUTO JURUTI SUSTENTÁVEL - IJUS, which is a private non-profit association, governed by the principles of legality, impersonality, morality, public access, economy, efficiency, and transparency. IJUS is made up of 117 other local legal entities, with the objective of contributing to the sustainable development of Juruti and its surroundings.

CONJUS, FUNJUS and INDICATORS became internal structures of the INSTITUTO JURUTI SUSTAINABLE - IJUS which from now on assumes the role of articulating agent for local development. This new format was essential for advancing in the maturation of the dialogue, methodologies, and more refined strategic objectives, without giving up the achievements made over the years. One of the main changes is related to organizational management, as the local community took over the IJUS board from FGV and Funbio.

In 2016, IJUS launched its first Call for support to projects. In 2017 and 2018, 25 projects totaling approximately R$ 500,000 were financed in the areas of family farming, inclusion, valorization of women, culture, education, biodiversity conservation, handicrafts, solid waste, generation of work and income in the communities of Juruti and two surrounding cities. To help plan and execute these projects, IJUS provided support in the formalization and restructuring of 16 organizations with a positive local impact. In 2018, in partnership with Alcoa, the second group of the School of Sustainability started, focusing on the UN sustainable development goals – SDGs. Forty local leaders were trained, including young people, women, civil servants, representatives of private organizations and social organizations, so that they can contribute and encourage dialogue on agendas that effectively contribute to achieving the goals of the SDGs.

The IJUS's main tool for supporting the community is the funding program for the selection of projects and local organizations for execution. As a result of this funding mechanism, collection points for selection and separation of solid waste were implemented, music and dance projects helped 300 young people find productive alternatives to idleness and drugs, 150 women became female leaders in the struggle to reduce violence against women, and 70 women victims of domestic violence were supported and trained in entrepreneurship and income generation. In the agricultural sector, 20 hectares of agroforestry systems were implemented with the aim of recovering degraded areas and generating income; 20 young farmers started to supply products for government purchase; a fruit processing unit aimed at improving the quality of the family farmer's products was constructed; a processing unit for banana products was

constructed to generate work and income for 20 women; and 20 honey bee producers received support and training for the conservation of biodiversity and generation of work and income, among other actions.



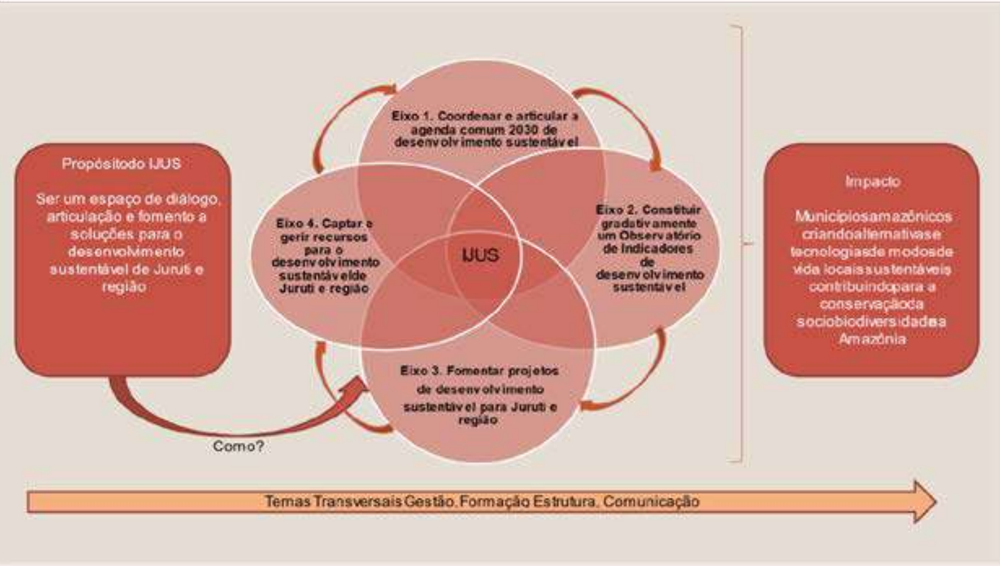
The organizational chart of the Sustainable Juruti Institute. Source: IJUS 2020 | [Fig. 2]

As of 2019/2020, IJUS has definitively assumed its role as a local protagonist. **With the support of Alcoa, it became a member of the Plataforma Parceiros pela Amazônia – PPA, which is a platform for collective action by the private sector to promote new models of sustainable development in the Amazon.** PPA aims to identify and develop tangible and innovative solutions for the conservation of biodiversity and natural resources of the Amazon, as well as guaranteeing the quality of life of the communities in the region.

Seeking new partnerships beyond the territory demonstrated the organizational maturity of IJUS, and shows that the achievement of autonomy and the paths to development need to happen naturally, by creating environments for dialogue, respect, active participation, transparency, innovation, and objectivity, without imposing interventions that deviate from the principles of participatory dialogue.

The integration of IJUS to PPA was fundamental for the actions of the following years, because during the Covid-19 Pandemic, the municipality of Juruti, similarly to many other municipalities in the interior of the Amazon, did not have structures in place to face the Pandemic. In 2020, the municipality had one doctor per 2,500 inhabitants, one respirator, no ICU, and only one municipal hospital. In this context, IJUS built and led the execution of the largest project to tackle the problems of the Coronavirus pandemic in Juruti, the JURUTI AGAINST COVID19 Project, with support from the United States Agency for International Development - USAID, NPI Expand, PPA, SITAWI and Alcoa, directly reaching more than 35,000 people in the western Amazon of Pará. Actions taken included the construction of 32 hospital beds, donation of equipment, medical and cleaning materials to hospitals and basic health units, 4,000 cleaning kits, 14,000 protection kits for low-income families, training for health teams in rural and urban areas to work in rural locations lacking medical coverage, donation of 85 tons of food to families in socially vulnerable situations, recovery of the productive potential of 52 family farms impacted by the pandemic, and income generation for women.

The results of the actions of the JURUTI AGAINST COVID19 Project demonstrated that the IJUS was starting an even larger and more comprehensive cycle in the municipality and needed to reassess and update its strategic planning. Thus, in partnership with USAID, PPA and Alcoa, the IJUS built its Theory of Change, where the impact that the IJUS intends to cause was defined, as well as the definition of objectives and strategies to develop an ecosystem of actors necessary to achieve goals. In this case, the ecosystem is formed by the interactions between the councils of CONJUS, FUNJUS, INDICATORS and the School of Sustainability, as well as their relationship with the territory: communities, people, institutions, partners, supporters, the press and others. The Theory of Change maps the logical sequence of activities, resources, objectives, results and expected impacts until 2030. **One of the essential points for structuring the planning is the ability of IJUS to create strategic partnerships with external organizations, aligning project concepts with the objectives of the various actors.**



[Fig. 3] | Priority axes of the IJUS Theory of Change. Source: IJUS 2020

LIMITATIONS AND CHALLENGES

The Sustainable Juruti Institute – IJUS has a complex governance structure that needs to be effectively communicated internally and externally, where the autonomy of each council is respected and the councilors contribute to the discussion of agendas. Thus, the main challenge for IJUS is to maintain the good level of engagement of the participating organizations. Of the 117 member institutions, 40 are selected to work directly on the councils for each biennium. It is vital necessary to define an intervention plan in order to avoid problems in terms of effective participation by local member organizations so that organizations feel useful and part of the decisions within the councils, because, if not properly observed, there is a risk of withdrawal from participating in council meetings.

OPPORTUNITIES FOR BUILDING ON / GOING BEYOND THIS CASE

As a result of the actions of the IJUS and recognition of its importance to the territory, in 2017, the Ministry of Justice of Brazil qualified the IJUS as a Social Organization of Public Interest (OSCIP) and in 2020 the State of Pará also qualified it as a Public Interest of the State. Both qualifications open future opportunities for the IJUS to carry out direct actions with partnerships and resources from the Federal and State spheres.

Since 2006, when the Sustainable Juruti Tripod was proposed, until 2020 as IJUS, the resources used for operationalization came from a single voluntary donation from Alcoa in 2006, which was used to finance projects that were executed by other organizations that were selected through public notices and their results monitored. During this period, no external resources were raised; however, in July 2020 IJUS carried out its first fundraising outside Alcoa and carried out its first direct execution of projects. In 2021, with this new funding, IJUS started the INGÁ Project with the objective of operating in strategic territories of Juruti over an area of 129,000 hectares, aiming to enhance the local human capital of these communities, restore, conserve, and protect biodiversity resources, support local sustainable entrepreneurship, and provide opportunities for women and young people to act as protagonists in their territories with approximately 700 families.

OPPORTUNITIES FOR LATIN AMERICAN BUSINESS ENVIRONMENT

The Instituto Juruti Sustentável – IJUS model is replicable by other companies that invest in large projects and are committed to the sustainable development of the impacted territories, being a tested and proven model. An essential characteristic for its effectiveness is adaptability based on the conception of effective tripartite participation.

One of the major problems that interferes with development is the access of small local enterprises to financing, whether by lending from traditional banks or from public notices for non-reimbursable resources. Problems such as bureaucracy, lack of guarantees, few bank branches and few enterprises accessing lines of financing, led IJUS to start, in partnership with Alcoa, in 2021, the Sustainable Juruti Bank – BANJUS. This is a community bank that aims to support sustainable local entrepreneurship through the socialization of credit for small businesses outside the traditional financing system, thus offering more growth opportunities to micro and small businesses, generating employment and income in the urban area and countryside of Juruti. In order to increase the impact of BANJUS, it was recently integrated into the INGÁ Project, increasing its capacity to act; together the projects will positively affect more than 2,000 people in the territory of Juruti. This most recent initiative demonstrates the adaptability and resilience of the Instituto Juruti Sustentável interventions in the face of the most varied scenarios.

KEY MESSAGES/HIGHLIGHTS

- *The conservation of biodiversity and people must be inviolable assets.*
- *The search for community autonomy is fundamental for sustainability.*
- *Horizontal dialogue is essential for sustainable development.*
- *Partnerships are fundamental for the success of IJUS actions; the complexity of the Amazon territory demands strategic partnerships in several segments.*
- *It is essential to focus on relationships and interests, and the roles of multiple actors, in order to develop appropriate institutional arrangements for development cooperation.*
- *Development requires time for effectiveness, and it is important to incorporate feedback and adapt over time.*

REFERENCES

https://cidades.ibge.gov.br/brasil/pa/juruti/panorama

http://ijus.org.br/noticias/conquista-local-escola-de-sustentabilidade-em-juruti-uma-realidade/

https://peabiru.org.br/2012/11/16/terceiro-setor-profissionalizar-a-captacao-de-recursos-garante-sustentabilidade-financeira/dsc01839/

https://www.funbio.org.br/programas_e_projetos/fundo-juruti-sustentavel-funjus/

https://eaesp.fgv.br/centros/centro-estudos-sustentabilidade/projetos/indicadores-juruti-e-juruti-sustentavel

Instituto Juruti Sustentável - IJUS 2020. Teoria de Mudança e Planejamento Estratégico 2021-2030. 31 páginas.

Partnerships leader, Fundo Vale, *marcia.soares@vale.com, in/marciasoares/* [1]

Fundo Vale and equity stakes manager, Vale, *gustavo.* [2]

Climate change leader, Fundo Vale, *hélio.* [3]

Innovation and impact measurement leader, Vale, [4]

Agronomist, Vale Natural Reserve [5]

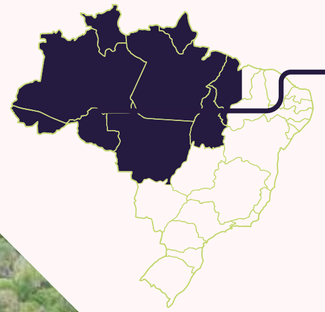
Innovation analyst, Vale [6]

Impact measurement analyst, Vale [7]

Partnerships analyst, Vale [8]

Fundo Vale and the 2030 Voluntary Forest Commitment

Márcia Soares[1], Gustavo Luz[2], Helio Laubenheimer[3], Juliana Vilhena[4], Bia Marchiori[5], Lucas Ferreira Folgado[6], Nathalia Cipoleta[7], Liz Lacerda[8]



LOCATION

Brazilian Amazon Region

CASE STUDY

Vale's 2030 Forest Goal since 2019, a voluntary initiative

INNOVATION

100,000 hectares will be restored by projects and businesses of **social and environmental impact**. In addition, these **projects and businesses** have become a **platform for promoting agroforestry entrepreneurship** and seek to induce the development of a business ecosystem linked to **forest recovery** in Brazil

MAIN LIMITATIONS

The **maturity level** of agroforestry businesses, models of **rural partnerships** that are not appropriate, and technical aspects of planting and occurrences that are **beyond the control** of businesses

MAIN CHALLENGES

The **scale** that the project has set as a goal. No other initiative has been identified in Brazil that has carried out productive recovery, especially through **agroforestry systems**, on a scale of 100,000 hectares

KEY LESSONS LEARNED

The **private sector** can be an **important partner** to expand social impacts, involving small producers and businesses that value ecosystems in companies' sustainable development and **ESG strategies**

keywords:

- **IMPACT BUSINESSES AND INVESTMENT**
- **AGROFORESTRY SYSTEMS**
- **RURAL SUSTAINABLE DEVELOPMENT**

ABSTRACT

Fundo Vale, a voluntary social investment vehicle set up by mining company Vale, has been leading the implementation of Vale's 2030 Forest Goal since 2019. This voluntary initiative aims to restore and conserve 500,000 hectares of forest by 2030. Of this total, 100,000 hectares will be restored by projects and businesses of social and environmental impact. In addition to meeting the goal announced by the company, these projects and businesses have become a platform for promoting agroforestry entrepreneurship and seek to induce the development of a business ecosystem linked to forest recovery in Brazil. Fundo Vale also fosters links with investors, in order to promote blended finance and reduce risks by combining philanthropy and impact investing. This is the largest project to recover habitat through sustainable production systems, such as agroforestry systems, ever undertaken in Brazil. This case shows the potential to unite business commitments and ESG strategies in projects and businesses with positive social impacts. As a leader that has emerged in this sector, Fundo Vale invites all those interested in this agenda to join with it and boost collective impacts.

KEY MESSAGES

1 Private sector **ESG initiatives** can promote a more sustainable economy in the Amazon

2 Business solutions have the **most potential** to reach the **scale needed** to help solve the Amazon's social and environmental problems

3 The social and environmental business environment is not very mature and it **requires seed capital** and investments in business acceleration

4 It is crucial to **create blended finance mechanisms** for the forest and climate sector

5 The **forest carbon market** is an **opportunity** for the private sector to engage around the concept of "Impact Carbon"

Check out the complete Latin American Business Environment Report released in 2022

INTRODUCTION

As part of its sustainability strategy, Vale, one of the world's biggest mining companies, created Fundo Vale in 2009. It is classified as a "civil society organization of public interest" and its mission is to promote a more sustainable, fair, and inclusive economy. Since it was founded, Fundo Vale has been supporting broad social and environmental transformation projects based on a low-carbon, regenerative, and sustainable economy, and it is focused on the Amazon region. In the last 12 years, it has allocated around R$ 212 million to more than 90 initiatives, building a legacy that combines habitat conservation and restoration with social and environmental impact businesses[1].

Fundo Vale's work has resulted in the construction of a **network of partners** that are promoting the sustainable development of biomes, encompassing sustainable cattle ranching and crop farming, business models that aim to keep the forest intact, and strengthening of social and environmental governance. **It has also been possible to leverage productive projects that have become businesses with social and environmental impacts, while boosting the bioeconomy.** Fundo Vale's institutional decisions have been guided and prioritized through objective analysis and the intention to generate positive social and environmental impacts, always accompanied by a commitment to manage and measure these impacts.

In 2019, Vale mining company reaffirmed its strategy and commitment to society and the planet, announcing its goals for 2030, 2035 and 2050, in the areas of climate change, energy, water, forests and socioeconomic contributions. These commitments include being carbon neutral by 2050, reaching 100% renewable electricity consumption in Brazil and 100% consumption of clean energy sources globally by 2025, reducing new water extraction by 10%, removing 500,000 people from extreme poverty, and protecting and restoring 500,000 hectares of habitat by 2030, outside the company's sites (Forest Goal). (The restoration of impacted areas within its operational sites or arising from legal obligations is not included here).

Based on its experience in the social and environmental fields, Fundo Vale proposed a strategy to its sponsor to achieve its Forest Goal. That is how the **2030 Voluntary Forest Commitment was born. The project encompasses two areas of activity: one focused on restoring 100,000 hectares of forest, and the other focused on protecting 400,000 hectares of forest.** In the first area, the strategy involves business promotion and investment in high-impact, innovative agroforestry businesses. This model makes it possible to generate income and employment while helping to recover ecosystems, which in turn sequesters carbon from the atmosphere during the tree growth phase.

On the conservation front (involving 400,000 hectares of forest), the company wants to expand its contribution to the conservation of biological diversity and maintenance of carbon stocks, in line with global climate and biodiversity agreements and the **United Nations' 2030 Sustainable Development Goals**. It is expected that carbon credits will be generated. In this context, Fundo Vale came up with the concept of "Impact Carbon" to designate arrangements related to the creation and purchase of forest carbon credits, involving forest conservation and restoration, as well as improvements to people's living conditions.

The forest restoration initiative is Brazil's biggest ever program for promoting different types of agroforestry systems. Fundo Vale's strategy is to expand social and environmental impacts in Brazil through commercial ventures that are economically viable, complementing the work done by governments, NGOs, and other initiatives. The aim is to leverage companies with a social or environmental value proposition, which have the potential to grow and gain scale, and guarantee their economic sustainability in order to promote management of rural landscapes in ways that maintain ecosystem services. To this end, Fundo Vale is promoting the following:

- ***Sustainable productive recovery of areas, replacing degrading activities;***
- ***Rural producers' access to credit, technical assistance, and business modeling;***
- ***Social innovation and the creation of businesses through synergies between production chains;***
- ***Creation of products based on the bioeconomy, to be sold on a large scale;***
- ***Development of new financial instruments with an agroforestry focus;***
- ***Funding and access to markets with guaranteed purchases of output;***
- ***Lower costs of restoring areas through innovative technical solutions;***
- ***Expanded investment capacity by reinvesting the income obtained from initiatives invested in by Fundo Vale;***
- ***The development of a forest carbon credit market.***

The authors of this article are part of the Fundo Vale team that is implementing this initiative. The team members have different backgrounds and areas of expertise and they bring complementary perspectives to the project**. This article seeks to present the challenges entailed in restoring areas through productive business models that involve small and medium-sized local farmers, generating income and leaving an environmental legacy in regions.** It also describes the many lessons learned in the first two years of the project's implementation phase, which involved total investment of more than R$60 million in this period.

CONTEXT

As stated by Jacques Marcovitch (2022) in an article published in a special Amazon supplement of Época Negócios, a business magazine, the bioeconomy requires a new model that is focused on people. "It is necessary to provide financial incentives that induce conservation," he stated. Thus, restoring areas and at the same time promoting the development of the impact business ecosystem is no trivial matter. We are talking about a very recent business environment, with untested arrangements and financial instruments that still need to be adapted to circumstances.

According to Valmir Ortega, co-founder of the Sustainable Connections Institute (Conexsus) and an entrepreneur who founded one of the businesses involved in this initiative (Belterra), the Amazon demands new investment formats, going beyond philanthropy and the limitations of public and private sector credit. For example, the lines of credit currently offered by banks require guarantees such as land ownership or cashflow, which

small producers often do not yet have. The process itself is highly bureaucratic, requires land documentation (which is complicated in the Amazon), and uses language that alienates small landowners. It is easier for this type of business to obtain philanthropic resources from foundations, institutes and international organizations, but this is not sufficient to build this economy on the scale that the Amazon needs. “That’s why we act as a link, to unlock processes and experiment with the development of chains and arrangements on a larger scale,” Ortega says.

The voluntary commitments made by Vale are within the context of the United Nations’ Agenda 2030, which sets out social and environmental goals for governments and civil society. Accordingly, the initiative seeks to help Brazil meet its commitments on this agenda and promote the forest carbon market. The Brazilian government’s target is to restore 12 million hectares of forest and other landscapes by 2030, as established in its National Plan to Restore Native Vegetation. Furthermore, the government’s Low Carbon-Emission Agriculture Plan provides for the restoration of 15 million hectares of degraded areas across the country, also by 2030, including 5 million hectares incorporated into integrated crop, livestock and forestry systems.

In short, Vale’s contribution is aimed at fostering a sustainable business ecosystem and inducing other companies to follow this path. This involves only part of Vale’s commitment, to restore 100,000 hectares outside the company’s sites.

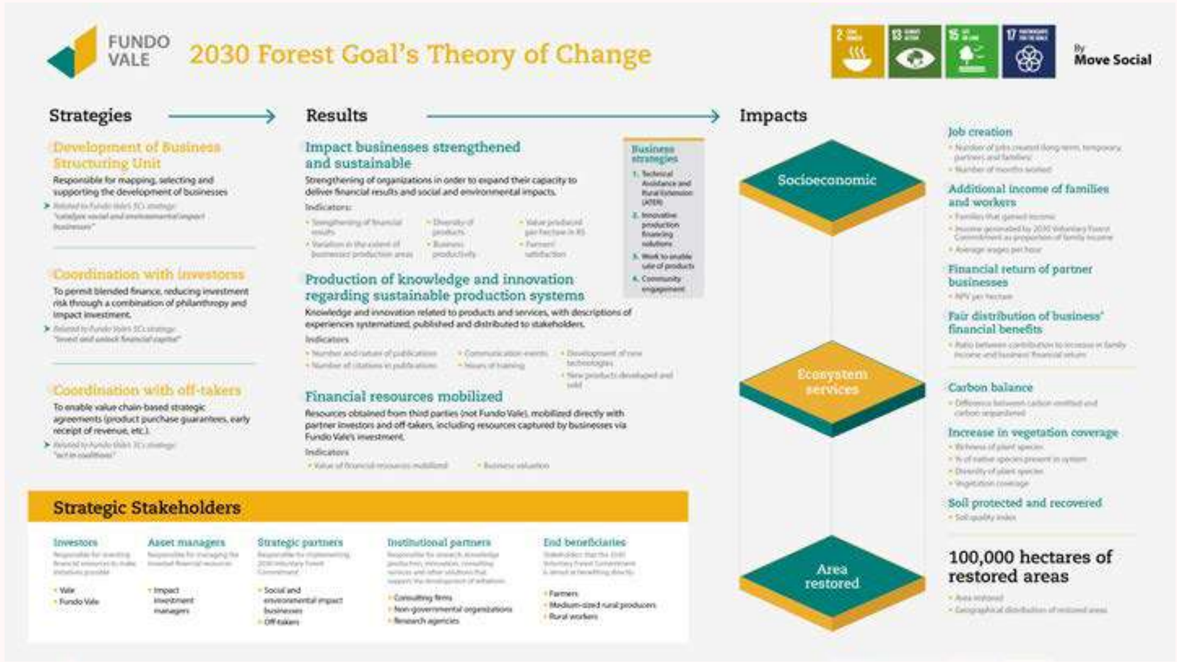
CASE STUDY DESCRIPTION

The model adopted to achieve the objective of restoring 100,000 hectares entails investment and the acceleration of businesses that are working to rehabilitate areas through arrangements that combine tree growing with commercial crop farming or cattle ranching. While recovering these areas, the initiative generates an increase in income and employment in the countryside and in the bioeconomy. Carbon is also sequestered from the atmosphere during the tree growth phase.

Based on the collaborative construction of a Theory of Change (Figure 1), strategies for high-impact interventions and schemes were defined, in line with a logical chain that links strategies, actors, results, and impacts. Implementation is based on business arrangements that reconcile the cultivation of native species with commercial species or livestock raising.

Mapping, selecting and supporting impact businesses (Strategy 1)

The phase of mapping and selection of impact businesses begins with the mapping of opportunities, preliminary assessment of business models, and analysis of the impacts, risks and returns of initiatives, with a view to building the portfolio. Based on this pre-selection work, initiatives are evaluated in terms of recovery and expansion goals up to 2030, installed capacity, pre-due diligence of social and environmental safeguards and financial metrics, among other things, until contracts have been signed with businesses in which Fundo Vale is investing.



[Fig. 1] | Voluntary Forest Commitment’s Theory of Change

Due diligence considers aspects such as:

- ***Contribution to positive impacts in terms of achieving Vale's 2030 Forest Goal;***
- ***Capacity and interest in receiving reimbursable financial resources from Fundo Vale;***
- ***Business management capacity and habitat restoration track record;***
- ***Capacity to work with other partners in the production chain;***
- ***Diversity of production systems;***
- ***Partnerships with small local producers;***
- ***Business expansion potential;***
- ***Potential for core business to generate carbon credits;***
- ***Potential for financial leverage with other partners.***

One of the **biggest challenges in terms of moving forward is the need to find businesses that specialize in restoring areas through species consortium arrangements and that are able to act on the scale necessary to meet the ambition of 100,000 hectares by 2030.** As well as restoring this area of land, the initiative also seeks to create a strong and sustainable impact business environment for large-scale recovery of areas and to promote social innovation, the modeling of innovative production financing solutions, technical assistance and community involvement with a focus on rural producers, access to markets and feasible possibilities for product sales. Another goal is to allow farmers to access the carbon credit market. Complementing this, Fundo Vale has financed initiatives to stimulate the emergence of new businesses or that strengthen businesses in their early stages, via philanthropic donations.

To begin with, the project mapped more than 50 businesses. This mapping work, carried out by Palladium, a consulting firm, was complemented by a selection process called the Agroforestry Challenge, which attracted 69 entries. Fifteen businesses were pre-selected and they then went through a pre-acceleration phase. Fundo Vale then worked with six finalist businesses in the acceleration phase. Out of this first selection process, two businesses were chosen and supported in 2020: Belterra, an agroforestry enterprise; and Caaporã, a silvopastoral scheme. Together, these two businesses have restored 1,053 hectares of land in six Brazilian states, 42% in the Amazon biome.

The following year, 2021, another three businesses were added to Fundo Vale's portfolio. The idea was to test business models in different regions, with different agroforestry and silvopastoral arrangements, in order to identify the solutions with the greatest potential for scale. In these two years, silviculture models involving different species and silvopastoral arrangements were tested in seven states, including four in the Amazon region: Roraima, Pará, Rondônia and Mato Grosso. This year, these businesses expanded to cover another 5,000 hectares as part of the pilot and concept testing phase. The objective is to find out the best arrangements and combinations of species in each location, and which financing and governance models would be most appropriate to achieve the necessary scale. In addition to Belterra and Caaporã, the following businesses joined Fundo Vale's portfolio: Bioenergia (an organic fruit grower), Inocas (a silvopastoral system that focuses on the macaúba palm tree), and Regenera (a business that is running agroforestry, silvopastoral and silviculture systems).

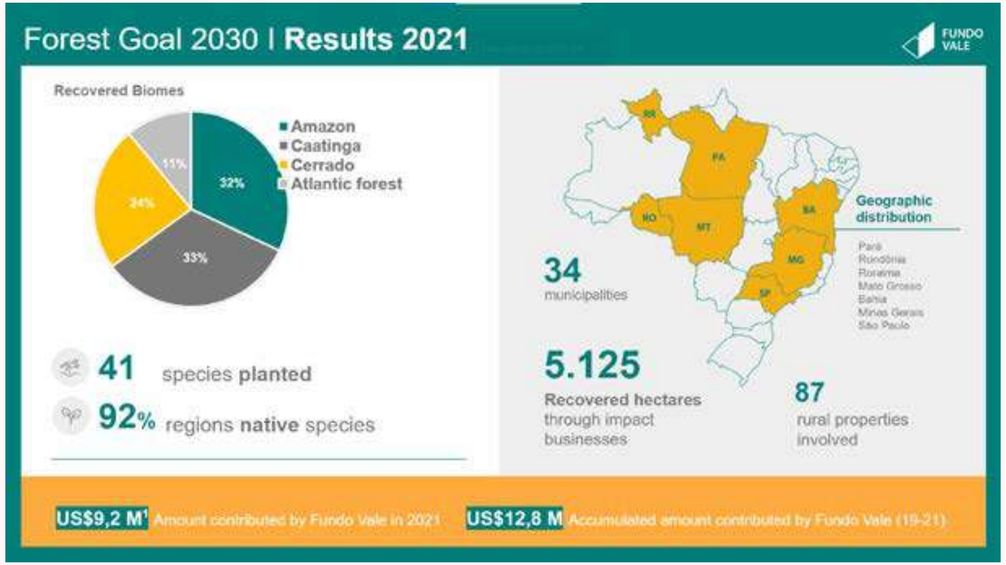
In order to strengthen the five businesses that were part of its portfolio as of 2021, Fundo Vale invested directly in them through seed capital, and then structured an acceleration program, supported by the Certi Foundation and Darwin, an incubator. This acceleration program is being developed in 2022. The objective is to be a catalyst for businesses that operate in sustainable value chains, accelerating the development, maturation and growth of the businesses in which Fundo Vale is investing. The idea is to help companies move toward financial sustainability while scaling up their field operations to meet the habitat restoration commitments.

This acceleration program is composed of several support strategies, such as mentoring, connections with partners, and monitoring by a board of experts. The acceleration trajectory of each business will be guided by a specific Acceleration Plan in batches that last six months, involving approximately five businesses simultaneously. Some of the activities take place collectively and others individually, and the support is aligned with the specific needs of each accelerated business.

The Acceleration Plan is customized following a Business Diagnosis for Acceleration. This tool is designed to help identify the stage of maturity of the businesses that are working toward the goal of restoring habitat. The tool features 60 indicators, grouped into 17 dimensions, distributed in seven areas: Markets and Alliances, Financial Management, Management and Human Capital, Strategic Management, Production Systems, Business and Products, and Impact Management. The Business Diagnosis for Acceleration, based on information provided by teams of

entrepreneurs themselves, determines the strengths of the business and key bottlenecks, while making clear the business' current stage.

By the end of 2021, 5,125 hectares had been recovered, and the amount will be increased year after year until the goal of 100,000 hectares is reached in 2030 (Figure 2). Forty-one plant species (92% native) have been planted on 87 rural properties. It is expected that the first 6,000 hectares of the Forest Goal will capture more than 30,000 metric tons of CO_2 equivalent per year and generate 1,100 new direct employment opportunities. This is potentially the biggest investment in habitat recovery with the intention of generating new businesses with positive social and environmental impacts and financial returns ever made in Brazil. The work in these two years has required a total investment of approximately R$100 million.



[Fig. 2] | Results achieved in 2021

Coordination with investors (Strategy 2)

In addition to governance and environmental arrangements, the initiative involves **financial prototyping**. The idea is to develop and strengthen instruments that can **unlock access to financial resources and markets for impact businesses that promote intact forest or help make production chains more sustainable.** This also means catalyzing blended finance operations, leveraging public, private and philanthropic financial resources for these businesses, and thereby enabling large-scale environmental recovery and conservation.

To make this arrangement viable, it will be necessary to attract market capital and unlock subsidized lines of credit, such as those offered by the National Family Farming Program (Pronaf), which are currently more easily accessed by production arrangements that use land in an environmentally unsustainable way. Fundo Vale believes that a combination of different funding instruments can reduce the risk level when dealing with startups and guarantee financial support in each of their development phases.

For example, philanthropic money can finance the strengthening of a particular business, whether to pay for technical assistance or purchase goods and services to improve production; while repayable market loans with fair interest rates can provide working capital. Legal arrangements by which client companies pay for products in advance can also be useful. Agroforestry businesses can also consider selling carbon credits as part of their financial arrangements. In this way, financial resources with different origins and objectives can be combined to leverage enterprises.

Negotiations with investment funds interested in providing resources, whether through credit or equity, are now under way. The seed capital contributed by Fundo Vale, together with actions to strengthen enterprises, helps attract these funds and guarantee their investments.

Coordination with off-takers (Strategy 3)

Negotiations with off-takers (contractual purchasers of a company's output) are aimed at establishing strategic agreements based on the value chain to guarantee product purchases and pay in advance, thereby supplying working capital, among other arrangements. There is potential for the development of new businesses and arrangements to ensure sustainable production chains. For example, this is the case with the cocoa chain activated by Belterra, which is talking to large Brazilian chocolate companies to guarantee purchases of cocoa from the agroforestry systems it is implementing.

Involving buyers of output in advance is critical to the success of arrangements, especially when dealing with larger-scale production. Imagine that you manage to structure your entire business, overcome your logistical and operational challenges, but then fail to sell your perishable output in good time. For this reason, Fundo Vale has been supporting businesses in talks with large buyers in the respective value chains.

Fundo Vale's activities will be based on an "inclusive growth model," through which the selected impact businesses are accelerated and connected to the main actors in the production chain in which they participate (buyers, suppliers, financial institutions, etc.). Vale's size and influence will attract major players in these chains to the arrangements.

“Impact Carbon”

In addition to the Forest Goal’s aforementioned recovery component, Fundo Vale came up with the concept of “Impact Carbon” to support Vale in the goal’s protection component, which aims to conserve 400,000 hectares of forest. Fundo Vale’s Impact Carbon vision goes beyond removing or avoiding greenhouse gas emissions. It is the result of investment to catalyze local socioeconomic and environmental development, aiming at the equitable, egalitarian and fair generation and distribution of benefits. In line with this vision, up to 2021, this component was executed through partnerships with conservation areas. To date, more than 115,000 hectares have been preserved with the company’s support.

To reach this initial number of hectares, Vale formed partnerships with three conservation areas managed by the Brazilian Government’s Chico Mendes Institute for Biodiversity Conservation. Together, these areas help protect more than 62,000 hectares of Atlantic Forest in three Brazilian states. Mata Escura Biological Reserve in Minas Gerais covers 50,892 hectares, Augusto Ruschi Biological Reserve in Espírito Santo covers 3,598 hectares, and União Biological Reserve in Rio de Janeiro covers 7,757 hectares. The company is also continuing to help protect and conserve areas covered by agreements signed in 2020, involving 52,848 hectares.

To complement this strategy, a study was carried out to find solutions that combine forest protection, the generation of carbon credits, and measures to fight deforestation in the Amazon. A business plan focused on projects to reduce emissions from deforestation and forest degradation, conserve forest carbon stocks, manage forests sustainably, and increase forest carbon stocks via the Reducing Emissions from Deforestation and Forest Degradation (REDD+) mechanism was prepared.

This mapping exercise identified 59 opportunities, involving approximately 5 million hectares, divided into a preliminary portfolio offering short-term options and various possibilities to explore after 2022. Following an analysis of potential positive social and environmental impacts, feasibility of business strategies and alignment with Vale’s objectives, a final list of projects was arrived at, involving more than 900,000 hectares and with the combined potential to generate 2.5 million metric tons of carbon credits per year in the states of Rondônia, Acre, Pará and Amazonas.

In 2022, Fundo Vale is incubating the Impact Carbon Hub, a vehicle for originating, developing and managing carbon projects and environmental assets. The goal is to combine different strategies for the development of in-house projects, investment in new businesses, new technologies, and the purchase and sale of carbon credits on the market, to meet Vale’s requirement for emission reduction or purchases of credits in order to become net zero by 2050, in line with its public commitment. This is a factor that cannot be disregarded in carbon credit negotiations, including via the REDD+ framework.

In this way, Fundo Vale is consolidating its “Impact Carbon Thesis,” seeking a new agenda for habitat recovery in Brazil while associating climate change mitigation with positive social impacts. In addition, it is positioning itself as one of the most significant investors in the structuring of Brazil’s social and environmental impact business sector.

MANAGEMENT OF INITIATIVE AND ECOSYSTEM OF PARTNERSHIPS

This initiative involves a complex governance and networking structure, featuring different actors in the ecosystem. Based on the main lessons learned from the first two years of implementation, it can be concluded that achieving the Forest Goal will require major management and institutional coordination efforts from Fundo Vale.

One of the main results of this diagnosis was the creation of an integrated model for managing the investment portfolio of the Forest Recovery Goal, structured into three interconnected macro-processes: Pipeline Management, Investment Management, and Knowledge Management. In turn, these macro-processes are supported by three transversal macro-processes: Governance and Control, Performance Management, and Communication Management. Each of these processes has been described in detail, highlighting the respective activity flows, required information, and actors that must participate in its implementation from 2022 onward.

Each of the partners is working in an area. For example, Palladium is mapping businesses and organizing a portfolio, Imaflora is performing due diligence regarding social and environmental safeguards, Move Social is developing and monitoring an impact thesis, the Certi Foundation and Darwin Startups are implementing social and environmental impact business acceleration programs, Ecosecurities is studying the potential generation of carbon credits, Sitawi is carrying out financial analysis, InPacto is working to ensure fair and decent labor conditions, and the Vale Institute of Technology and Vale Natural Reserve have tested best practices involving agroforestry systems. Finally, Impacto Plus is responsible for executing a pilot project entailing the experimental planting of 106 hectares and subsequent incubation and structuring of Belterra and Caaporã.

The governance arrangements are also complex in the field. In the current initial stage of the initiative, Fundo Vale has mobilized to test models of partnership contracts aligned with the land owned by partner producers (small and medium rural producers), leased lands, and also land owned by the businesses.

LIMITATIONS AND CHALLENGES

We consider that the main challenge is the scale that the project has set as a goal. No other initiative has been identified in Brazil that has carried out productive recovery, especially through agroforestry systems, on a scale of 100,000 hectares. This challenge implies a series of other limitations.

There are many limitations, ranging from the maturity level of agroforestry businesses, selection of areas to be cultivated, planning and management, suppliers and logistics, incompatibility between the rural calendar and the financial year, regional planning, models of rural partnerships that are not appropriate, and technical aspects of planting and occurrences that are beyond the control of businesses, such as the COVID-19 pandemic and extreme weather events. (The heavy rains in southern Bahia at the end of 2021 harmed production).

It is also necessary to ensure that businesses comply with legislation and adopt best practices related to agriculture, agroforestry systems, and social practices, while demonstrating the effectiveness of their work and measuring their impacts. To

this end, Imaflora joined the initiative, carrying out due diligence processes in line with standards and metrics used in the sector. It is also helping the businesses to continuously improve their processes through monitoring reports and the creation of educational materials and processes.

Access to markets and logistics is another challenge. This includes finding markets to sell the crops and other goods produced through consortium arrangements, especially markets committed to climate change mitigation. Financing is another barrier to gaining scale.

During meetings with the enterprises in question, they mentioned the following main challenges in terms of improving their processes and scaling up:

- ***Improvements to the process of diagnosing implementation areas;***
- ***Feasibility of including legally mandated minimum areas of native habitat;***
- ***Prior mapping of necessary licenses and permits;***
- ***Definition of clear partnership contract models and integration with rural producers;***
- ***Greater disclosure of the project to attract rural partners;***
- ***Clearer governance and strategic planning for each business;***
- ***A clear business model and definition of the roles of each manager.***

Operational and logistical difficulties were also mentioned, as well as the need for more knowledge of regions and local rural relationships and the importance of standardized information (covering areas such as climate, pests and diseases).

Challenges related to conservation, according to "Impact Carbon" concept

Within the scope of the protection strategy via REDD+ projects, Fundo Vale wants to position itself as an active player in the sector, initially acting through medium/long-term partnerships and high-quality projects. After that, the idea is to originate its own projects with a wide range of key actors, targeting Impact Carbon.

However, there are many challenges involving REDD+ in Brazil. Previous experiences in Brazil have not been very effective at incorporating social impacts and benefits for local people into their models, generating strong criticism from civil society. Fundo Vale is aware that REDD+ projects have been at the center of debate since their conception and we have identified the main challenges to be overcome:

- **Additionality:** This is one of the fundamental principles of carbon finance. According to this principle, a project only can issue carbon credits if is not yet legally required, common practice, or financially attractive in the absence of credit revenues.
- **Permanence:** This is always at stake when it comes to nature-based solutions, as forests are always at risk of being negatively impacted by natural and man-made factors. According to the permanence principle, the impact of preventing or removing greenhouse gas emissions must not be at risk of reversal and it must result in a permanent drop in emissions.
- **Overestimation:** Carbon projects must ensure that the number of credits issued corresponds to the reduction in CO_2 emissions obtained. The number of credits issued by a REDD+ project depends on the level of CO_2 emissions avoided due to avoided deforestation, known as the "baseline,", i.e., what would happen to the forest in the absence of the project.

In this context, Fundo Vale believes that by applying strict social and environmental safeguard criteria and following world-class certification standards, these risks can be minimized. We seek to look beyond the climate benefits and catalyze the generation of a series of social and environmental co-benefits, such as the preservation of biodiversity, development and income generation, strengthening of local communities, and investment to structure and develop social and biological diversity production chains.

By developing high-quality projects in line with its Impact Carbon vision, Fundo Vale aims to mitigate inherent risks and achieve the greatest possible regional impacts.

OPPORTUNITIES FOR BUILDING ON / GOING BEYOND THIS CASE

Fundo Vale's experience shows the private sector's potential contribution to forest and climate change agendas. At the last international climate change conference, COP-26, held in Glasgow, the private sector was very present and a series of decarbonization commitments were made. **This shows it is possible to expand social impacts, involving small producers and businesses that value ecosystems in companies' sustainable development and ESG strategies.**

One good opportunity for this project, which emerged at COP26, is **Innovative Finance for the Amazon, Cerrado and Chaco (IFACC), a regional initiative of the United Nations Environment Program in partnership with Conservation International and the Tropical Forest Alliance.** The idea is to scale up innovative financial mechanisms – including agricultural loan products, farmland investment funds, corporate debt instruments, and capital market offerings – to help farmers implement social and environmental impact business models that supply global markets, without further conversion of the Amazon, Cerrado and Chaco ecosystems.

In terms of financial sustainability, the idea is to develop and strengthen instruments that can unlock access to financial resources and markets for impact businesses that value intact forest or allow production chains to become more sustainable. This also means catalyzing blended finance operations, leveraging public, private, and philanthropic financial resources allocated to these businesses, and thereby enabling large-scale environmental recovery and conservation.

As a **way of monitoring and evaluating the impacts generated by initiatives, an impact management and measurement system is being built and piloted, taking into account key benchmarks in the impact investment ecosystem.** This model seeks to monitor, up to 2030, the initiatives invested in and fostered by Fundo Vale in pursuit of the goal of 500,000 hectares recovered and conserved. There will be result and impact indicators that

demonstrate how the initiatives deliver the impacts proposed by their innovative operating models in the areas in question.

The model will also encourage the development of businesses and startups supported by its internal structure for managing results and impacts, in order to contribute to the development of this topic in the field and within the ecosystem itself.

OPPORTUNITIES FOR LATIN AMERICAN BUSINESS ENVIRONMENT

In view of all the lessons learned from this experience, the word that best sums up the future expected by Fundo Vale in the field of social and environmental impacts is synergy. Given the ecosystem's complex challenges and in order to achieve positive social and environmental changes by 2030, collective action is the strategy adopted. **Partner organizations point to a future in which Fundo Vale remains a bridge that connects, provokes, and encourages the field to develop. Fundo Vale continues to position itself as an organization that drives social and environmental impact businesses, especially in the Amazon region.**

Fundo Vale's close links with the Vale mining company also gives the word synergy another meaning; it is necessary to think about coalitions that optimize resources. From the perspective of investment funds, where we came from and where we are heading, toward a society with positive impacts, Fundo Vale also intends to generate a virtuous movement in the market. It wants to stimulate not only its sponsor, but other companies to invest resources in technologies, platforms, financial instruments, accelerators, and social and environmental impact businesses.

Through its actions, Fundo Vale has demonstrated that investing in for-profit businesses with positive social and environmental impacts is one of the paths that can be taken by large organizations such as Vale. In addition, we are seeking to prove that it is possible to invest in the generation of carbon credits combined with positive social impacts, while looking beyond the Amazon biome.

For all these reasons, Fundo Vale is dedicated and open to joining forces around strategic and broad agendas. The organization has joined the impact ecosystem and it wants to advance and build consistent approaches, systems, and practices that help determine the impacts of our actions.

As it proceeds along this path, Fundo Vale invites everyone who feels challenged to transform the impact ecosystem to join its mission. Fundo Vale is open to thinking, acting, and promoting collective impacts. Please feel free to contact us at contato@fundovale.org.

KEY MESSAGES/HIGHLIGHTS

- *Private sector ESG initiatives can promote a more sustainable economy in the Amazon.*
- *The private sector can drive the climate change agenda.*
- *Business solutions have the most potential to reach the scale needed to help solve the Amazon's social and environmental problems.*
- *The social and environmental business environment is not very mature and it requires seed capital and investments in business acceleration.*
- *It is crucial to create blended finance mechanisms for the forest and climate sector.*
- *The forest carbon market is an opportunity for the private sector to engage around the concept of "Impact Carbon."*

REFERENCES

Fundo Vale, 2020, Impact Report. Available at: http://www.fundovale.org/wp-content/uploads/2021/12/Vale_2021_01_Relatorio_Ingles_96dpi.pdf [accessed March 27, 2022]

Fundo Vale's 2030 Theory of Change. Available at http://www.fundovale.org/en/our-impact/theory-of-change-2030/ [accessed March 27, 2022]

Época Negócios, Editora Globo, February 2022. Especial Amazônia 4.0 – A inovação que virá da grande floresta – Bioeconomia, ESG, Empreendedorismo.

MARCOVITCH, JACQUES, 2022. Época Negócios, Editora Globo, February 2022, pages 62-63. Especial Amazônia 4.0 – A inovação que virá da grande floresta – Bioeconomia, ESG, Empreendedorismo.

Capital Reset, October 2021. "Da filantropia ao venture capital: Como o Fundo Vale está investindo em 'carbono de impacto'" (Only in Portuguese). https://www.capitalreset.com/da-filantropia-ao-venture-capital-como-o-fundo-vale-esta-investindo-em-carbono-de-impacto/ [accessed April 29, 2022]

MCNEELY, J. A.; SCHERR, S. J. Ecoagricultura: alimentação do mundo e biodiversidade. São Paulo: Ed. Senac, 2009. 459 p.

Collective Impact, Stanford Social Innovation Review, by John Kania & Mark Kramer. https://ssir.org/articles/entry/collective_impact [accessed April 2, 2022]

Credits: Andy Bicerra

CONCLUSIONS

4

MOVING FORWARD

Latin American Business Opportunities for a Green and Equitable Post-Covid Recovery

This **23rd annual edition of the Latin American Business Environment Report from the Center for Latin American Studies** at the University of Florida focuses on opportunities and challenges for business and financial institutions to ameliorate contemporary problems related to climate change, biodiversity loss, and socioenvironmental justice. As emphasized in the introduction of this report, Latin America is rich in natural, biological, and cultural resources, but faces socioeconomic and governance challenges that have been exacerbated by the Covid-19 pandemic. The current macroeconomic climate sets the scene for accelerated investment targeted at increasing employment and productivity. This report joins others to call for orienting those investments to support transitions to more sustainable and just economies that meet basic human needs while protecting critical ecosystem services. Our focus on experiences and opportunities at intersections among business, finance, and sustainable rural development in the Amazon region expresses the strengths of UF's Center for Latin American Studies, with its longstanding history in the Amazon region across multidisciplinary and applied programs in Tropical Conservation and Development, Latin American Business, and Sustainable Development Practice.

With the purpose of promoting dialogue and collaboration among diverse actors who share interests and commitments to building inclusive and ecologically sustainable futures in Latin America, we present a set of eight case studies from three countries that were produced by Latin American collaborators and by current and former UF students. The authors represent scholars, NGOs, think tanks, corporations, and financial institutions, and the cases present (mostly) positive experiences, reporting on accomplishments, while considering limitations and challenges. We use these cases to nourish future opportunities for expansion and further development of the focal cases, and also for broader application of their approaches and lessons learned to other initiatives.

The report illustrates the utility of an Environmental, Social, and Governance framework as a lens for analysis of business approaches to generating employment, income, and profit. Innovative business initiatives were presented in a sequence that begins with **Sustainable Products and Value Chains** exemplified by Amazonian-nut, *aguaje* palm fruit, and ecotourism; followed by assessment of alternative financial investment mechanisms to promote **Credit and Social Entrepreneurship**, from a community bank and a large-scale credit cooperative; and concluding with a section on **Mining and Corporate Social Responsibility** that presents CSR initiatives from two major corporations, Vale and Alcoa, and contrasts them to conditions of inadequate regulation and governance that allow harmful practices to proliferate with extensive small-scale gold mining in Bolivia. This conclusion highlights **key messages from the eight cases** and addresses **challenges and opportunities for scaling up and mainstreaming** the innovative approaches presented.

SUSTAINABLE PRODUCTS AND VALUE CHAINS

The three nature-based business initiatives cover a range of products, and illustrate the economic potential of healthy tropical forests. Amazonian-nuts (also called Brazil nuts) are collected from an emergent rainforest tree and provide employment and income to Indigenous and traditional populations during several months each year as part of complex livelihood systems. They are a global commodity that compete with other nuts such as almonds and cashews, which are produced with quantities of water and chemicals that have significant environmental impacts. The Buriti palm fruit or *aguaje* is a nutritious fruit (referred to as a Superfood) of a widespread species, but its importance in regional markets has been limited by issues with spoilage and variability in cultural preference. This case is somewhat similar to the açai palm in the Amazon estuary, where innovations of marketing and processing led to a major new export industry being developed since the 1990s, and nowadays açai is sold at restaurants and supermarkets across Florida. The other case in this section extends value chain analysis to services surrounding community-based ecotourism, an innovative and rapidly growing niche in Latin America's massive tourism industry. In these enterprises, a community or group of communities collectively lead, manage, and implement local tourism operations, often in partnership with regional, national or international tourism operators. The enterprise draws upon the natural and/or cultural resources of the locality and the social capital of the participating communities.

Each of these cases represents a complex supply chain, especially from the perspective of local communities who tend to be price-takers, selling to local middlemen. The Amazonian-nut supply chain is particularly complex because it reaches national and global markets; it was traditionally controlled by a few powerful families. In all of the cases, communities seek to capture excess rents previously extracted by exploitative traders who monopolized capital, knowledge, and organization to control the market.

In the case of *aguaje*, the approach is to partner with the leading Peruvian beverage company AJE, who are purchasing, processing, and marketing *aguaje* at a national level. The authors show that the partnership is valued by community members and is effective in ensuring that harvesting practices are sustainable (tree climbing versus felling the tree for a one-time albeit quicker and easier harvest). But their analysis also shows that the price being paid for the fruit does not cover the costs of harvesting and transport, so that producers are exploiting their own labor. One solution identified is for the company to maintain its minimum price guarantee, but to pay the (seasonally variable) market price when it exceeds the guaranteed minimum. Similar to the case with Amazonian-nut, traders and consumers can make a major contribution to protection of forests and traditional communities by investing and by paying a price that compensates communities for the important ecological services that they provide regionally, nationally, and internationally.

The approach documented in the case of Amazonian-nut is much more ambitious, whereby communities seek to replace middlemen and manage the entire value chain themselves, from production to placement of a differentiated, value-added product with a certificate of origin in national supermarket chains. Because Amazonian-nut is such a widespread product of major economic importance for traditional forest populations who inhabit, manage and protect some of the best-preserved areas of forest throughout the Amazon basin, there is a vast ecosystem of social innovations

and community-based enterprises being implemented in different regions. These have emerged and propagated through a network of governmental and non-governmental organizations, forest-based grassroots organizations, research, funding, cooperation agencies, and corporations. Gutierrez and Tomasi highlight social innovations related to training, use of a cell phone app to monitor production and prices, community organization to manage the logistics of Amazonian-nut harvesting and transport, and a fair-trade business platform. Traditional communities are supported in the challenging task of strengthening the Amazonian-nut value chain by NGOs, companies such as supermarket chains, and consumers.

Companies that wish to engage and contribute to community conservation and development efforts should be aware of the complexity of rural livelihood systems: all three of the value chain cases address products that are seasonal and partial sources of income, which

communities must and do complement with other strategies including agriculture, fishing, wage labor, and geographic mobility. The cases also illustrate three strategies that companies can use to ensure that their engagement with communities maximizes benefits for both sides. One strategy is to conduct impact analysis. Donohue and Romero used a pair of analytical tools, PRIME and Green Value, to test the viability of the company-community partnership for *aguaje* sales. The study demonstrates the utility of these tools, which are readily available and can be used by other enterprises and their collaborators to assess viability and impacts of their initiatives and identify needs and opportunities for improvement. As in this case, universities and NGOs can be key partners for this analysis.

A second strategy for companies is to appreciate the extent and importance of social capital within remote rural communities. In the case on community-based tourism, Montero Alvarez describes the community of El Chino on the Tahauyo River, and offers important considerations about the complexities of businesses interacting with isolated rural communities. El Chino has decades of experience with wildlife and protected area co-management based on community agreements and rules enforcement, plus strong collaboration with governments and NGOs. The social capital developed in these processes bodes well for the community's capacity to engage with tourists and tourism companies, together with managing valuable biological and cultural resources. Nevertheless, it is important for tourism businesses to recognize that communities are complex, varied, and dynamic groups of people; while some families or individuals may go into tourism, that does not mean all families or individuals want or should participate. It is always important to consider appropriate safeguards whenever businesspeople interact with such communities, to avoid socio-environmental opportunism, greenwashing, and pseudo-ecotourism. Specifically, to be successful, Montero Alvarez recommends that companies' business models incorporate local communities early in the process of development, wherein those local people decide upon their own agreements, rules, and with whom to collaborate.

A third and complementary strategy is for companies to partner with NGOs and other organizations who are making sustained investments in building capacity and creating enabling conditions for long-term success. Key lessons from the Amazonian-nut case are the need for comprehensive approaches, such as vertical integration of supply chains, horizontal linkages among products and services beyond Amazonian-nuts, and long-term commitments of support that adapt as needs and capacities change. This integrated development strategy offers ample opportunities for collaboration. Interested businesses, including investors, purchasers, distributors, and retailers, would be well-served to identify and partner with NGOs and community organizations as collaborators, rather than attempting to replicate these lengthy and complex development processes.

While this analysis has focused on the role of companies, the cases also identified key gaps and opportunities for governments to create enabling conditions for such partnerships to be successful. The analytical tools applied to the *aguaje* case identified significant bottlenecks and opportunities, such as infrastructure and transport, that call for investment and support from governments, as well as, or in partnership with, companies. More generally, Montero Alvarez relates the current lack of appropriate policies to promote rural eco-tourism with consequent poor and inadequate infrastructure, elevated informality, and uneven distribution of tourism resources and opportunities. Companies can invest in this area, but governments are also called to step up to provide appropriate regulation and enabling conditions to make these enterprises viable, scalable, and beneficial to the local communities who have a key role in protecting and managing the natural environment and cultural expressions that are the foundation for this growing niche of the tourism market.

CREDIT AND SOCIAL ENTREPRENEURSHIP

Credit and investments are catalytic factors for development of economic enterprises at all scales, from family farms to major corporations, and we offer two innovative approaches to credit at different scales from the same region of northern Mato Grosso. It is also worth noting that both of the Corporate Social Responsibility cases identified credit as key to their efforts to promote development of a wide range of forest enterprises, and the Alcoa case concludes with the development of a community bank.

Olival presents the case of a grassroots movement of family farmers that seeks to improve farmers' autonomy and participation in regional governance as a basis for socially and environmentally sustainable local development. For Instituto Ouro Verde, agroforestry production systems are a means to increase income, restore degraded areas, and ultimately empower families. As their work evolved, they recognized the need to improve commercialization of the diverse products that come from agroforestry systems, and they developed an innovative and effective system for direct marketing to local consumers, effectively creating a "virtual farmer's market" that is more efficient and adaptable than the traditional farmers market because it links buyers and sellers before perishable goods are transported. Following the success of their Siscos direct marketing system, IOV worked with participating farmers and interested regional consumers to develop a community Banco Raiz that obtained seed capital and effectively rotated it through cycles of short-term lending and repayment. This type of patient small-scale development process takes time and commitment. While the scale and extent of direct impacts may be limited over the short term, both the direct marketing system and the community

bank built community capacity and experience to manage trading relationships, allocate financial resources, and oversee investments and repayment. This necessary foundation empowers farmers and their organizations to access and participate in conventional markets and credits, as well as to engage with the public policies that exist in these areas.

The complementary case from Farias and colleagues looks at a larger-scale regional credit cooperative that is part of a national system, able to reach a much larger universe of potential borrowers. The Sicredi cooperative differs from many large lenders by building on a collaborative and democratic governance model. The authors argue that the Cooperative is decentralized enough to permit lending strategies that prioritize regional productive vocations, while offering sufficient scale to generate major changes in land use strategies for the region. As with all of the authors who looked at credit, these authors point out that official credit is both prohibitively bureaucratic and relatively less available for smaller-scale enterprises. They underline a policy failure that makes lending from official sources for activities that are known to be environmentally destructive but are profitable over the short term less bureaucratic, with lower interest rates, and easier to access. Bank officers follow official extension and research agencies in supporting standard packages that call for extensive use of toxic chemicals, industrialized seeds and equipment. In contrast, the community bank described above, and the regional cooperative mentioned here demonstrate the economic and practical viability of incorporating strict Environmental, Social and Governance (ESG) standards. Farias and co-authors present the Sicredi cooperative as an opportunity for investors who are committed to this agenda and seek a well-structured lending system to manage such investments.

MINING AND CORPORATE SOCIAL RESPONSIBILITY

Two exemplary cases demonstrate large-scale mining corporations making in-depth and well-intentioned efforts to mitigate the impacts of their extractive business by investing in regional development. In contrast, the case from Bolivia documents how a lack of appropriate government oversight, regulation, permitting, and taxation allows decentralized wildcat miners to cause massive environmental destruction, while privatizing rents and subjecting workers to degrading and dangerous conditions. Ironically, wildcat miners use the legal framework of cooperatives to escape regulation and taxation, but Zaconeta documents that this structure is used as a façade to disguise the exploitative nature of these enterprises.

The CSR cases from Brazil illustrate alternative approaches to promoting development: Alcoa is implementing a regional strategy in the locale of a major mining operation, whereas Fundo Vale is implementing a sectorial strategy for forest restoration at a national level, separate from the Vale company's own operations. Yet, the cases document some major similarities: both companies have established autonomous entities to manage these programs, tapped into leading social development and conservation organizations to help design and implement their strategies, and invested their own financial resources to fund projects. The implementation of Vale's 2030 Forest Goal is led by the voluntary social investment organization, Fundo Vale. Fundo Vale has contracted several leading consultancies and NGOs to work on project components, from designing safeguards to surveying the field of investment options. Alcoa created three autonomous entities (a Council, a Fund, and an Indicators project) that were subsequently merged into the local non-profit Instituto Juruti Sustentável. Alcoa partners with FGV and Funbio, the former to design and monitor development indicators and the latter to administer a grants fund, areas in which these organizations have great expertise.

Alcoa's regional approach is focused on developing a participatory governance structure that implements a grants program to support local development initiatives. The Instituto Juruti Sustentável – IJUS is composed of 117 local organizations, mostly from civil society, a remarkable number for a rural Amazonian municipality. Forty organizations are selected by this assembly to serve two-year terms on three governing councils, which then select and oversee grants to support a wide range of local development initiatives. More recent collaboration with the USAID-led *Parceiros para Amazônia* opens the doors to greater collaboration among companies interested in supporting local development. Alcoa's creation of IJUS creates an opportunity for increased collaboration of other major corporations, and this scenario played out in engineering a comprehensive philanthropic response to the Covid-19 pandemic.

Fundo Vale is taking a comprehensive approach that aims to create a new sector of businesses that invest in and profit from forest restoration enterprises. Fundo Vale is systematically nurturing a suite of new enterprises through a meticulous process of identification, analysis, investment, monitoring, and acceleration. This case demonstrates how much of a commitment is necessary to establish businesses in a new field, that prioritizes environmental and social long-term paybacks rather than only immediate profits.

In both of these cases, the focus on relationships and recognition of multiple actors' roles and expertise, associated with significant resources invested over several years, can lead to strategic impacts that effectively address the challenges of the local population and responsible businesses models.

CONCLUSIONS

The 2022 LABE Report demonstrates multiple products, sectors, and approaches whereby green and inclusive business initiatives have the potential to be important paths toward more equitable and democratic societies in the Americas. The analyses presented in these case studies demonstrate that community-based enterprises can contribute to green and equitable development, and highlight some of the challenges and complexities that companies can and should take into consideration. Communities and their livelihood systems are diverse, rapidly changing, and complex. Environmental, Social and Governance considerations are not a checklist of separate items, but a framework to recognize and support the integration of investment, production, marketing, use and management of natural resources, public policies, community organization, dialogue, participation, and learning. We encourage business partners to appreciate this complexity, take a comprehensive approach to development by working with NGOs and other partners, engage in dialogue, and commit to long-term relationships that build social capital and enable learning and adaptation.

Economic and business enterprises are already making positive contributions to climate, biodiversity, and socioenvironmental challenges through social innovation and responsible and collaborative business practices. There is potential for far greater

positive impact. Social and environment challenges, exacerbated by the Covid-19 pandemic, call greater attention to nature-based solutions that integrate diverse stakeholders acting together, and with common goals. The U.S. and its business community are part of the solutions highlighted in this report. Partnering with communities, government, and businesses towards a green and equitable post-Covid19 recovery is imperative for Latin American and its people.

If you and your organization desire further information on the cases presented in this report, please contact the organizers through this email: *info@latam.ufl.edu*, using the subject: "2022 LABE Report."

Sincerely,

Robert Buschbacher
Ana Violato Espada
Susan Paulson

Organizers

UF Center for Latin American Studies
UNIVERSITY of FLORIDA

EXPLORE NEW FRONTIERS
CENTER FOR LATIN AMERICAN STUDIES
UNIVERSITY OF FLORIDA

TCD Tropical Conservation & Development Program

MASTER OF SUSTAINABLE DEVELOPMENT PRACTICE

Latin American Business Environment Program

Center for Latin American Studies

University of Florida

PO Box 115530

Gainesville, FL 32611

Tel: (352) 392-0375

Fax: (352) 392-7682

latam.ufl.edu/research--training