



# WORKING TO MAKE THE AMAZON WORTH MORE STANDING THAN CUT DOWN

BUSINESS ON THE FRONTLINES

Since 2017, the Foundation for Amazon Sustainability and the University of Notre Dame's Meyer Business on the Frontlines Program have collaborated to advance livelihood opportunities in the heart of the Amazon rainforest.



MENDOZA COLLEGE OF BUSINESS



# A REASON TO PARTNER

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The Amazon rainforest is the largest and most biodiverse forest in the world. For millennia, humans have lived along the banks of the Amazon River and its tributaries. Today, there is a growing tension between a modern world with a rapidly growing population and the natural world. Both the forest itself and its inhabitants are threatened by deforestation, poaching, mining and pollution.

For more than a decade, the Foundation for Amazon Sustainability (FAS) has led conservation efforts in the Amazon, focusing on sustainable economic development of livelihoods for the traditional river communities, or *riberinha*, that can help make the forest more valuable standing than cut down. In focusing on the so-called Children of the Forest, FAS seeks to balance the economic realities of human civilization with the need for ecological conservation.

To further this focus, FAS has partnered with the University of Notre Dame's Meyer Business on the Frontlines Program to develop more sophisticated business solutions to ensure that the river communities maintain livelihoods that support both the forest and their families.



Photo by John Dunbar

#### ABOUT

# FOUNDATION FOR AMAZON SUSTAINABILITY (FAS)

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A Brazilian nongovernmental organization, FAS was launched in 2007 by means of a partnership between the government of the state of Amazonas and the Bradesco Bank. The foundation gained the support of multinational corporations such as Coca-Cola Company Brazil (2009) and Samsung (2010), among other partnerships for its programs and projects.

The mission of FAS is to promote sustainable development, environmental conservation and improvement of the quality of life of the river communities of the state of Amazonas. The main initiatives are implemented by the Bolsa Floresta Program, Education and Saude Program and Innovative Solutions Program.



Photo by Barbara Johnston

ABOUT

# THE MEYER BUSINESS ON THE FRONTLINES PROGRAM

At the University of Notre Dame, the Meyer Business on the Frontlines Program (BOTFL) utilizes the dynamic skills of business to address issues including post-conflict rehabilitation, poverty, illicit economies, isolation and prejudice. MBA and other graduate students from across the University work directly with partners in the field on real-time projects with the ultimate goal of creating jobs and setting the conditions for economic growth.

Many BOTFL projects focus on agriculture, infrastructure and mining. Others have extended to micro-finance, youth unemployment, post-civil

war reconciliation, business incubators, health and nutrition, human trafficking and disaster preparedness. Since 2008, BOTFL teams have worked on more than 60 projects in 30 countries with more than 25 partners.

Through the years, BOTFL projects have created jobs and increased livelihoods for thousands of people around the world and have helped organizations to incorporate a business mindset into the service of their communities.

# THE PARTNERSHIP



Photos by Wyatt Brooks



In May 2017, Bernardo Sicsu, a Notre Dame MBA and Business on the Frontlines alumnus, introduced BOTFL to his father, Benjamin, a distinguished Brazilian businessman and chair

of the FAS board of directors. With a common focus on the development of sustainable livelihoods for communities facing a great challenge, BOTFL and FAS were well-suited to collaborate.

The strong focus on the development of sustainable livelihoods embodied by FAS stands apart from the work that many traditional NGOs perform across the Amazon. The Standing Forest Program created by FAS has a goal that requires innovation and empowerment to generate income and, in turn,

provide conservation of the forest. The coupling of a service-driven approach with substantive impact for both the river communities and the forest itself, along with the incredible logistical challenges of one of the most remote supply chains in the world, presented a truly unique opportunity for Business on the Frontlines.



Through additional conversations between FAS founder Dr. Virgilio Viana and BOTFL founder Dr. Viva Bartkus, an initial partnership was formed to pair MBA students from Notre Dame with FAS to

evaluate supply chains in the Standing Forest Program and assess new opportunities to increase income in the river communities.

# THE PROCESS

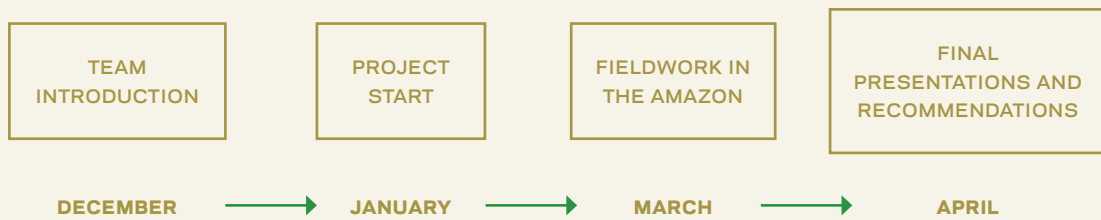
Since the start of the partnership in 2018, FAS and BOTFL have worked together to evaluate several supply chains for key income-generating products in a number of the protected reserves in the state of Amazonas.

Each year, graduate student teams from the Meyer Business on the Frontlines Program begin by researching and gathering information on markets and business models, starting in December. Students leverage their own professional experiences as well as the Notre Dame network to deepen their knowledge in the project. In January, the team begins weekly calls with representatives from FAS to gain greater insight and knowledge on challenges and special considerations while continuing the research process.

From 2018 to 2020, teams visited FAS project locations in Amazonas during the first two weeks of March to learn from the communities and experience each business firsthand through interviews with community and business leaders, market visits, and by walking in the footsteps of the ribeirinha to understand their unique challenges. Following their return to campus, the student teams prepared final reports including pragmatic recommendations, interview notes, and business model examples and assumptions.

After the students complete their projects, BOTFL instructors continue periodic check-ins with the FAS team to help troubleshoot implementations of the team's recommendations and to coordinate ongoing research to assess the impact of the partnership.

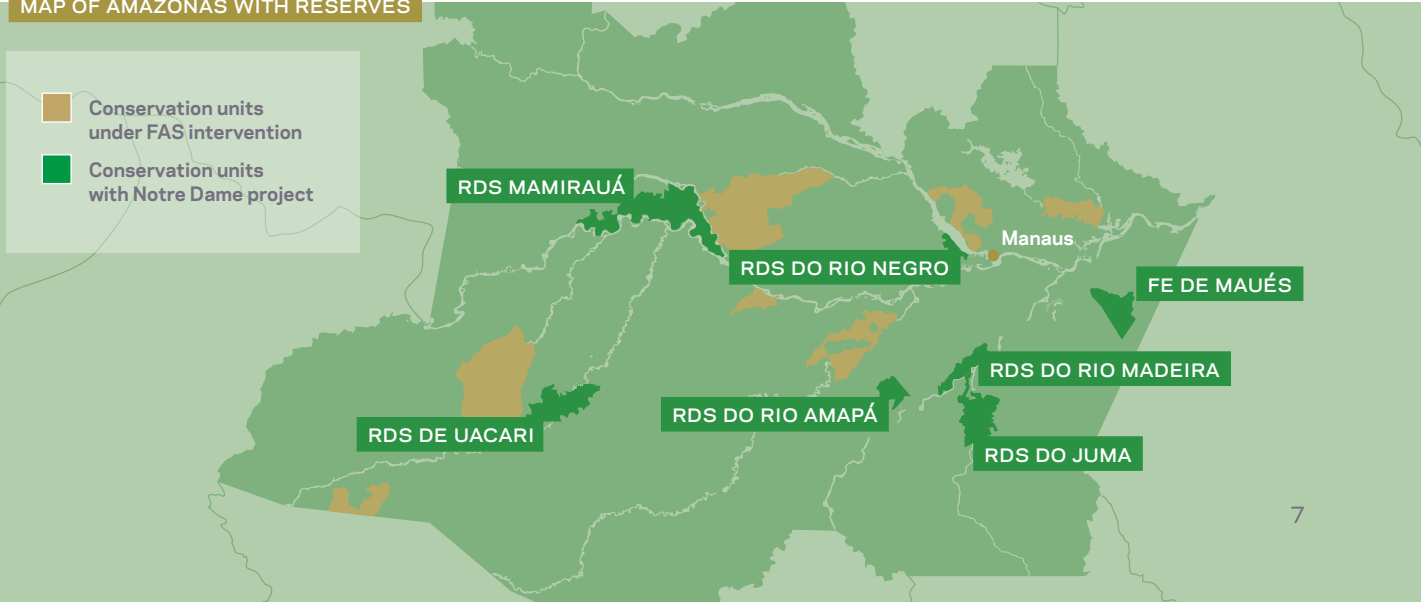
## TYPICAL PROJECT TIMELINE



# THE PROJECTS

	YEAR			
	2018	2019	2020	2021
PRODUCTS	Pirarucu	Farinha	Guarana Wood Management	Acai
RESERVES	Uacari Mamiraua	Mamiraua	Maues Rio Negro	Rio Madeira Juma Rio Amapa
KEY BUSINESS CHALLENGE	Logistics and profitability of transportation of perishable goods from remote locations to market	Market analysis and opportunity assessment of value-added products	Market analysis and opportunity assessment of value-added products	Logistics and profitability of transportation of perishable goods from remote locations to market

MAP OF AMAZONAS WITH RESERVES





# THE OUTCOMES

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Following recommendations from BOTFL teams, FAS has made a number of significant investments to develop sustainable business operations that support the river communities in Amazonas.

## PIRARUCU

Following the team's assessment, FAS made an initial investment of approximately R\$1 million to purchase nine larger transport boats to service communities in the Mamiraua and Uacari reserves, built two cold storage facilities in Fonte Boa and Manaus and launched pirarucu fairs in local and regional market towns.

These investments in market access increased the communities' ability to sell their pirarucu to customers in Manaus, Fonte Boa, Tefe and Carauari at higher prices than the middle men had been paying. The impact of this investment in the first year was a 27% increase in household income for communities with the FAS boats, with much of the additional income being used for basic consumption needs and to support secondary education among families in the community.

**27%**

INCREASE IN INCOME

**19%**

INCREASE IN PRICE

**<3 Years**

PAYBACK PERIOD ON INITIAL  
INVESTMENT IN BOATS

## **FARINHA**

Based on the joint team's recommendations, FAS made additional investments in the Ribeirinha product both in the Uarini farinha processing plant in Mamiraua reserve and in sales and distribution channels in Manaus.

These additional investments included purchase of products that improved basic labor safety in farinha processing. Additionally, the hiring of dedicated sales staff combined with the repositioning of the Ribeirinha farinha toward restaurant and higher-end food stores increased sales by more than 20% in one year.

## **GUARANA**

Although the joint team's guarana market assessment was completed very recently, the outlines of its impact are already clear. In order to avoid underpricing its high-quality guarana product processed in the Maues reserve fabriqueta, FAS will re-evaluate its prices versus competitive alternatives. The ramp-up of production in the fabriqueta will be gradual in order to build appropriate levels of customer demand in Manaus and beyond.

"It was a privilege to provide BOTFL's strong business analytics, substantial value chain experience and compassion to a respected organization such as FAS working to empower the people to solve their problems. The FAS programs implemented over the past 10 years have done much to sustain the pirarucu, and now the focus is to do the same for the people living in the Amazonas region supporting their important role as the 'keepers of the forest.'"

**JOHN DUNBAR**

*Adjunct Professor of Finance, University of Notre Dame, BOTFL team faculty adviser*

# LOOKING FORWARD

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The COVID-19 pandemic has emphasized the great need to protect and support fragile communities across the Amazon. While it has restricted travel to the reserves in order to safeguard remote communities from the virus, FAS and BOTFL continue to collaborate remotely to advance ongoing projects and research. Collaborative teams will return to the river communities as soon as it is safe for both the communities and for the teams.

Through this continuing partnership, FAS and Meyer Business on the Frontlines will work to advance sustainable businesses and livelihoods related to these and other products from the forest. In support of these endeavors, rigorous research in collaboration with development economists will help to gauge impact and share key concepts and ideas with many other parts of the world that face the challenge of isolation, remote supply chains and thin markets.

“The partnership with Notre Dame has been very important in providing FAS a deep, accurate and independent perspective that became a very useful contribution to improving the work that now benefits hundreds of communities in the Amazon.”

**DR. VIRGILIO VIANA**

*Foundation for Amazon Sustainability Founder*

“St. Augustine counsels, ‘Let us not, on either side, claim that we have already discovered the truth. Let us seek it together as something which is known to neither of us. For only then may we seek it, lovingly and tranquilly.’ During the course of our multi-year collaboration, the Foundation for Amazon Sustainability and Notre Dame’s Meyer Business on the Frontlines Program have sought new opportunities together. Along the way we learned from each other ways to protect this beautiful Amazon environment and help make its enterprising people be even more productive.”

**VIVA BARTKUS**

*Associate Professor of Management, Faculty Director  
of the Meyer Business on the Frontlines Program*



# Learn more

MEYER  
BUSINESS ON THE FRONTLINES  
PROGRAM

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