FRUTASÃ INDUSTRY, TRADE AND EXPORT LTD.
Brazil

Equator Initiative Case Studies
Local sustainable development solutions for people, nature, and resilient communities
Local and indigenous communities across the world are advancing innovative sustainable development solutions that work for people and for nature. Few publications or case studies tell the full story of how such initiatives evolve, the breadth of their impacts, or how they change over time. Fewer still have undertaken to tell these stories with community practitioners themselves guiding the narrative.

To mark its 10-year anniversary, the Equator Initiative aims to fill this gap. The following case study is one in a growing series that details the work of Equator Prize winners – vetted and peer-reviewed best practices in community-based environmental conservation and sustainable livelihoods. These cases are intended to inspire the policy dialogue needed to take local success to scale, to improve the global knowledge base on local environment and development solutions, and to serve as models for replication. Case studies are best viewed and understood with reference to 'The Power of Local Action: Lessons from 10 Years of the Equator Prize', a compendium of lessons learned and policy guidance that draws from the case material.
PROJECT SUMMARY

FrutaSã has its roots in a scoping study of the Brazilian Cerrado eco-region conducted in the 1990s to determine socioeconomic challenges facing smallholder farmers and indigenous communities. Alongside mounting environmental threats to the region, exacerbated by the economic marginalization of the rural communities and subsequent over-exploitation of local resources, these findings inspired the ‘Fruits of the Cerrado’ project, which eventually became FrutaSã Industry, Trade and Export Ltd. This eco-enterprise creates income for small-holder farmers through the sustainable extraction, marketing and sale of non-timber forest products, particularly native fruit pulp. The organization is half owned by a private partner, and half by the Centre for Indigenous Work, on behalf of indigenous communities. The initiative has successfully combined locally-abundant fruit varieties, traditional knowledge of their cultivation, and modern processing and storage techniques.

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The Cerrado is a vast savanna region that stretches across central Brazil, covering an area of two million square kilometers. This area accounts for almost one fifth of Brazil's land area. While attention is more often focused on the threats faced by the neighboring Amazon rainforest, many important tributaries of the Amazon River actually originate in the Cerrado, tributaries that also feed the world's largest wetland ecosystem, the Pantanal, which is situated on the borders of Brazil, Bolivia and Paraguay. Despite being one of the oldest and most biodiverse savanna ecosystems in the world, the Cerrado is under threat. Over the past 35 years, the wetlands and surrounding ecosystems have been significantly degraded and many of the region's more than 130 endangered species are endangered. The primary threat and the driver of biodiversity loss in the region has been land conversion for large scale, commercial agriculture. Land conversion has not only damaged an important ecological zone, but undermined the ability of resident indigenous populations to sustain their livelihoods.

Outside of the agri-business sector, much of the Cerrado is characterized by economic marginalization and poverty. The border region of Serra da Mesa between the northeastern states of Maranhão and Tocantins is particularly affected. The population in this area consists largely of family units living on small-hold farms of between 30 and 400 hectares. Farmers grow a variety of crops and many oversee small herds of domestic animals as a financial safety net. The majority of households also maintain vegetable gardens to provide food for their families, generate income and use in traditional medicine.

Massive deforestation in the region, with accompanying loss of local livelihood security, reached a crisis point in the early 1990s. A number of local and indigenous stakeholders, including the Center for Indigenous Work (Centro de Trabalho Indigenista) and the Wyty-Cate Association of Timbira Communities of Maranhão and Tocantins (Associação Wyty-Cate, das Comunidades Timbira do Maranhão e Tocantins), began discussions on how to safeguard the region against further environmental destruction, imminent threats to indigenous cultural survival and territorial integrity, and growing economic insecurity. With only 15 per cent of indigenous territory suitable for agriculture, alternative livelihood options and income streams were pressing needs. A necessary precondition for the development of alternative income options was their alignment with the non-destructive, self-sustaining and autonomous ethos of the Timbira people.

A partnership to develop local livelihoods

A scoping review of the region, conducted by the Center for Indigenous Work, revealed widespread economic stagnation and marginalization amongst small-holders and indigenous communities in the rural areas of northern Tocantins and southern Maranhão – employment and income insecurity; lack of access to basic services such as healthcare, education and transportation; and all the standard indicators of poverty and low living standards.
It was agreed that, in light of the deepening socioeconomic and environmental exploitation of the Cerrado and the similarity of experiences and challenges faced by small-holders and indigenous communities, any alternative approach must have the twin objectives of reducing poverty and promoting the conservation and sustainable use of the region’s rich biodiversity.

These early discussions resulted in the launch of a ‘Fruits of the Cerrado’ project, which eventually developed to become FrutaSã Industry, Trade and Export Ltd. FrutaSã is a conservation business venture which creates income for small-hold farmers through the sustainable extraction, marketing and sale of non-timber forest products, particularly native fruit pulp. The organization has a balanced ownership model, whereby half the company capital is held by the Wyty-Cate Association and the other half by the Center for Indigenous Work. The venture is operated by the indigenous association. An early challenge for the enterprise was not access to native products – as there is an abundance of marketable fruits species in the Cerrado, including bacuri (*platonia insignis*), bacaba (*oenocarpus bacaba*), buriti (*mauritia flexuosa*), caja fruit (*spondias lutea*), murici (*birsonimia crassiflora*) and guava (*psidium arrack*) – but the gap between local indigenous knowledge and effective business development.

FrutaSã was conceived with the intention of connecting two groups of target beneficiaries – the indigenous people of southern Maranhão and northern Tocantins on the one hand, and the small-hold farming families surrounding indigenous lands on the other. The end goal was a partnership and business model based on the sustainable harvesting of native fruits. FrutaSã has successfully created twelve local producer groups, which feed harvested native fruit into a value-adding, secondary processing supply chain.

FrutaSã also established a fruit pulp factory, which serves as a processing centre and clearing house for fruit harvested and collected by small-holders and indigenous people. This allows the local population to generate income to meet the basic consumption needs of their families, while simultaneously protecting the region’s biodiversity. By closing the gap on the supply chain between fruit producers and the market, and by providing value-adding, secondary processing for a previously undervalued and underutilized resource, FrutaSã has helped to mitigate deforestation in the region.

“Enterprises following a solidarity economy model directly and purposefully integrate marginalized segments of the population that do not have the technical or educational qualifications to raise their income level by conventional means of urban employment. Their only alternative source of income still lies in the agricultural sector, the only sector they are familiar with.”

*José Costa Ayres Junior, FrutaSã*
Key Activities and Innovations

A first step in the evolution of this joint venture was to undertake a rapid, participatory rural assessment to formally explore the economic and commercial potential of locally-available natural resources in the communities of the Serra da Mesa region. Based on the findings of this assessment, a develop plan for the use of natural resources and agro-extractive activities in the region was drafted with a strong emphasis on fruit production. The objective was then four-fold:

i. To produce and distribute the seedlings of native and exotic fruit species to local communities;
ii. To populate productive areas with fruit trees to enable and enhance the participation of local indigenous communities in a fruit pulp supply chain;
iii. To disseminate knowledge on agro-extractive practices to participating communities, emphasizing local ownership and the application of traditional knowledge; and
iv. To organize the production and marketing of Cerrado fruit products, ensuring that proper incentives were in place.

Facilitating collective action

The very first challenge in the FrutaSã approach was to create a model of joint production which would bring together socially and ethnically diverse groups, all with different technical capacities and expertise. This challenge was perhaps overshadowed by the fact that FrutaSã was one of the first organizations of its kind, designed to safeguard the survival of the Timbira people’s culture and identity through sustainable business. It was a common commitment to the defense of the Cerrado environment and the Timbira territory that ultimately facilitated the formation of producers associations and their integration into a formal network overseen by FrutaSã. Another factor that allowed the business to evolve, and bolstered community solidarity, was that FrutaSã offered a sustainable income generation model that did not rely (at least primarily) on state support or external donations. The business was based on a self-sustaining and autonomous economic activity, one which drew heavily on local indigenous knowledge and locally-available natural resources that were undervalued in local markets. The independence and self-sufficiency were empowering, and fostered a shared identity on which collective action could be based.

A purchasing policy that promotes stability

Another factor contributing to the community solidarity which underpins the FrutaSã business model is a purchasing policy based on long-term agreements. Compared to other companies in the fruit production supply chain, FrutaSã offers slightly lower prices per unit of fruit, but guarantees the purchase of the entire harvest from local producers. Other buyers offer prices between ten and 15 per cent higher, but also have predetermined fruit quotas. Once these quotas are reached, their relationships with local producers end. FrutaSã on the other hand, develops purchasing policies with local producers to buy all of their produce. This approach ultimately provides local fruit producers with a stable market outlet, which contributes to the long-term sustainability of the business.
producers with greater certainty that there will be a buyer for their produce, and removes the uncertainty of inconsistent demands and fluctuations in the market. FrutaSã employs an outreach officer who travels to small-hold farms, establishing relationships with local suppliers and drawing up contracts to cement this arrangement.

FrutaSã is engaged in an ongoing cycle of local monitoring, outreach and evaluation. With each new crop of native fruit production, representatives of the organization travel to rural communities to explore the potential of the coming harvest, secure fruit purchasing contracts, buy fruit, and foster and maintain the relationships that make the supply chain possible. Through this process, FrutaSã is also able to obtain up-to-date information on the state of the forest, mapping burning and clear-cutting and documenting rainfall patterns, and to undertake ongoing needs assessments of producer families. This information is then stored in a centralized database, where it can be processed and analyzed to inform FrutaSã priorities and action areas.

Transforming the local market

Since its foundation, the business has fostered an appetite in the market for locally-produced native fruits. While these same varieties of fruit were widely available in the past, small farmers did not have a consistent market or a coordinating entity to prioritize their needs and interests. This shift has altered both the local economy and the fruit production supply chain. In the case of bacuri, the price paid to local producers (per thousand units) increased from BRL 40 (Brazilian reais) in 2001 to BRL 120 in 2006. Cajá, a fruit that previously served as low-value food for cattle, was transformed into a marketable, high-value commodity. FrutaSã activities have had similar effects in commercializing locally-produced araçá guava, tamarind, murici, and jucara.

The organization has also been active in providing local producer organizations (the suppliers) with guidelines on best practice in hygiene, harvesting and storage. In addition to making the produce more marketable by establishing production standards, this guidance has served to significantly reduce loss of produce due to rotting, fungi and insects. In the case of cajá fruit, for example, local producers have been trained to clean the ground beneath cajá trees and to lay out a ground buffer of tarps or straw mats to cushion the fruit when it falls, and to reduce contamination associated with soil contact during the rainy season. Similar training has been provided to local bacuri producers, who have been supported in the construction of hand-built protective ‘fruit tree balconies’, which allow farmers to pack picked fruit immediately, avoiding direct contact with the ground.

“Once environmentally sustainable businesses are supported to reach their full potential – and active support from government and many stakeholders is absolutely essential – these economies can achieve comparatively high gains and have a reduced impact on the environment”

José Costa Ayres Junior, FrutaSã
Impacts

Biodiversity Impacts

Few regions in Brazil, with the exception of the Atlantic Forest, have experienced worse environmental degradation or decline from land conversion and deforestation than the Cerrado. Mining, intensive land use for grain and soy cultivation, logging, livestock rearing, and low-tech, short-sighted development projects have been the norm in the Cerrado since the 1970s. These development choices had devastating impacts on the region’s biodiversity.

The region covering the south of Maranhão and northern Tocantins, and containing the highest concentration of native fruit trees such as bacuri, hog plum, palm, juçara, bacaba, and pequi, is in high demand by agribusinesses for land conversion for monocultures, notably soy. Land conversion and the steady incursion of paved roads and transportation infrastructure have caused widespread deforestation. Smallholders are being forced to sell their land, which has had distressing impacts on traditional family farms, local incomes and local biodiversity. The removal of vegetation and forest cover for monoculture plantations has cause soil erosion, the siltation of rivers, and ground water contamination from the use of pesticides and chemical fertilizers. As habitats are lost, endemic animal species are becoming threatened and endangered.

Incentivizing the protection of biodiversity

FrutaSã has managed to have a considerable impact on biodiversity in the Cerrado by promoting the sustainable cultivation of native fruit trees, and the conservation of the agro-ecosystems in which they grow. Many of the primary drivers of deforestation in the region have been mitigated since the project began. Clear-cutting in areas that hold fruit trees has been reduced significantly and forest fires and annual burnings in these same ecosystems have reduced drastically. These changes coincide with major developments in Brazilian forest laws and stepping up of forest law enforcement, but the reorientation of the local economy to properly value native fruit trees has complemented this and further incentivizes the protection of standing forests and healthy forest ecosystems. Where slash-and-burn agriculture was previously quite common during periods of drought, in order to renew pasture lands for a second season, local producers are now more concerned with protecting fruit-bearing areas.

Beyond being a source of local food security, and beyond their value to the local economy, fruit trees are also an essential link in the natural food chain. The local forests, in which over 58 species of known fruit trees native to the Cerrado are cultivated, house a unique abundance and diversity of flora and fauna. A number of endangered and threatened species’ habitats have been protected as a result of reduced deforestation. Among the species regularly encountered by local farmers are armadillos, deer, paca (cuniculus paca), agouti (dasyprocta azarae), jaguar (panthera onca) and the maned wolf (chrysocyon brachyurus).

The conservation and reforestation of fruit-bearing trees typically found in the forest floodplains – cajá, juçara and buriti – also ensures the protection of alluvial sites that are essential for healthy, functioning ecosystems. Planting fruit trees enables the small- and medium-sized tributaries of the Tocantins River to provide fresh water year round by serving as a riparian buffer. This practice has come under threat in recent years with the allocation of land for eucalyptus plantations and wood pulp production. Eucalyptus and soy plantations require a disproportionate amount of water, and often lead to the draining of flood plains. FrutaSã has been active in advocating for the protection of fruit-bearing tree areas.

In those areas containing bacuri and cajá trees, where positive biodiversity impacts are clearly visible, it is clear that protecting forests and planting native tree species makes good business sense. Not only does it enable ongoing economic activity, but it also facilitates the provision of ecosystem services that are essential to local well-being.
SOCIOECONOMIC IMPACTS

Economic activity in the region has been dominated in recent decades by livestock rearing and large-scale monocultures such as soy beans. Large-scale commercial interests have also shaped the local and regional economy through extractive industries such as mining and logging. Neither monocultures nor large-scale extractive industries are the economic domain of smallholders or indigenous communities, but their presence and ultimate predominance have had major implications for local livelihood options, incomes, land tenure and economic and environmental security. First and foremost, smallholders in the region have been tempted, or even coerced, into selling their property to these larger scale interests. Economically marginalized farmers with few livelihood options are often forced to sell their land to make ends meet. Without access to the mechanized tools of modern agriculture, it is difficult to compete in the market for cash crops.

FrutaSã has tapped into a market gap that empowers small-scale farmers to retain their land and engage in a sustainable income generating activity that draws from local knowledge and widely available, low-input natural resources. The business has created a market for the fruits which make excellent raw materials for juice, ice cream, oils, sweets, cakes and more. Buriti, for example, is used locally for its oil and pulp and is used to make dough for cakes and sweets. Bacaba pulp is used for juices and flour, while murici and assai are used to make juices and ice creams.

Through a comprehensive feasibility study, FrutaSã determined that the sustainable harvesting of these fruits on a local scale had very high potential for positive environmental and developmental impacts. Tapping this market, however, was dependent on information and knowledge dissemination amongst local farmers, and effective communication of the economic, social and environmental incentives. To assist in this, FrutaSã has helped mobilize twelve local producer organizations, which link local farmers and promote sustainable fruit harvesting activities across the region.

People-centered business

By purchasing raw materials from local farmers for the production of fruit pulp, FrutaSã has created a development alternative for the local and indigenous population of the Cerrado. Participating communities receive an income, as well as support and advice on sustainable extraction techniques, fruit processing and storage, and youth involvement and leadership. More than 300 families are now actively involved in sustainable harvesting activities. The increased number of communities sustainably harvesting fruit has not only resulted in increased incomes, but also provided for local food security. Furthermore, with economic security and a viable livelihood alternative, these small-hold farmers have been able to remain on their lands, and together form a corridor of protected indigenous territory.

FrutaSã follows a business model that is heavily influenced by the Solidarity Economy (Economia Solidária) movement, which has grown in popularity since the 1980s. The movement emphasizes fighting social inequalities and poverty by allowing all members of a community to participate in the equitable sharing of benefits that arise from a socially or environmentally sustainable business. As such, FrutaSã is not singularly focused on profit margins, but is committed to having a positive impact on the lives of over 300 families that comprise its primary beneficiaries.

FrutaSã is committed not only to paying local producers fair and consistent prices for harvested fruit, but also to establishing lasting relationships built on trust, confidence and security. The FrutaSã purchasing policy of long-term agreements – the guaranteed purchase of an entire harvest from local producers, as opposed to the industry standard of purchase quotas – provides local producers with greater certainty that the fruits of their labor will have a market, reduces levels of waste and fruit loss during the production process, and guarantees stable and consistent incomes for participating communities.

An equally important socioeconomic impact, and the foundation of the FrutaSã model, has been the transformation of the market supply chain for fruit in a way that has both empowered local producers and added value to a previously undervalued resource. Several of the fruit types that are now sourced through FrutaSã grow widely in local ecosystems, but did not previously have a market or a demand. FrutaSã has successfully generated a market for fruit that was previously undervalued (such as bacuri), and in some cases a demand for fruit that was entirely disregarded previously (as has been the case with cajá). A typical family with five members can earn up to USD 1,875.00 in one bacuri harvest, which requires roughly 30 days of labor. This is a substantial increase in income for families that otherwise traditionally relied on cattle farming.

POLICY IMPACTS

FrutaSã has been active in advocating for policy changes to benefit local and indigenous communities and the local environment. As one example of its leadership in this space, FrutaSã led calls for the establishment of a National Park in southern Maranhão. After extensive lobbying efforts with other partners, the 160,000 hectare Chapada das Mesas National Park was established in 2005.

Additionally, FrutaSã played an important role in the launch and coordination of an ultimately unsuccessful fight against the construction of a hydro-electric dam in Estreito. The organization assumed a role in community mobilization, and alerted the local population to the risks and environmental impacts this development project posed. In the wake of the flooding caused by the hydroelectric plant, and presumably in recognition of FrutaSã’s advocacy efforts, the group was cited by the Ministry of Environment as being an essential agent in repairing the damage suffered in the fruit-bearing areas. The affected area included a region holding the highest concentration of bacuri trees.
SUSTAINABILITY

FrutaSã is the largest manufacturer of native fruit pulp in Maranhão, and is one of the few enterprises of its kind in Brazil that is owned and operated by indigenous people. Consumers are aware that FrutaSã products are made from raw materials sourced from small-scale farmers and indigenous communities. This differentiates its products in the market and gives it an identity unique and distinguishable from other fruit pulp brands. Social and environmental responsibility is a pillar of the brand’s resonance and staying power. Therefore, even with higher fruit purchasing costs than other companies, FrutaSã has been able to remain financially sustainable and attract informed and concerned consumers into its market share. The basic rule followed by FrutaSã is that total fruit acquisition costs must not exceed 30 per cent of the retail price of the pulp. This has allowed FrutaSã to pay suppliers higher purchasing costs, while still working with a comfortable profit margin.

The sustainability of FrutaSã’s business model has officially been recognized in recent years, with the organization awarded the Chico Mendes Award for ‘Sustainable Business of the Year’ in 2004 and the ‘Sustainable Business Award’ from the Brazilian Business Council for Sustainable Development in 2007. These awards can be seen as recognition of the project’s importance as a promoter of a differentiated development approach that prioritizes local and indigenous community needs as well as environmental conservation.

REPLICATION

Since its establishment, FrutaSã has been able to share its business model, and the ingredients of its successful implementation, with a wide variety of groups, not only across Maranhão and Tocantins, but in other states such as Minas Gerais, Pará and Piauí. FrutaSã has hosted a number of site visits by different indigenous communities and farming groups, each time sharing their experiences with the intention of replicating elements of the project in other communities.

The Center for Indigenous Work – one of the founding partners of FrutaSã – has also launched a project in collaboration with the Inter-American Development Bank to consolidate and strengthen the supply chain of native fruit trees across Carolina in Maranhão. This initiative will directly benefit more than 300 families, and will be based on the model of local fruit producers that is advanced by FrutaSã. Technical assistance, guidance, distribution of fruit seedlings, and mentoring will serve to create new production groups, which will ultimately be consolidated into cooperatives at the end of the project.

Beyond direct peer-to-peer exchanges and site visits, FrutaSã actively participates in discussion forums and information exchanges to share its business model. One of the many networks to which the organization contributes is the Araguaia-Tocantins Solidarity Marketing Network, which coordinates the activities of several solidarity groups in the region. FrutaSã is also a founding member of the Second Degree Cooperative of Central do Cerrado, which is situated within the Brasilia based Institute for Society, Population and Nature, a federation that coordinates more than 50 production groups, associations and cooperatives in ten Cerrado states.

PARTNERS

While FrutaSã receives support from a number of different partners, three organizations are directly involved in the company.

Wyty-Cate Association was founded in 1994 and officially registered in 1996. It brings together 16 villages: New Waterfall, Bacuri and Red River (Krahô), San Jose, Patizal, Buriti Fulfilled, Silver and Cocalinho (Apinajé), St. Joseph and Root (Krikati); Governor, Rubiaceae and
Investments in enterprises that follow the solidarity economy model need enough time to mature. It is only when maturity is achieved that their positive impacts on a regional economy are greater than that of many large-scale businesses, which are often favored by governments.

José Costa Ayres Junior, FrutaSã
Click the thumbnails below to read more case studies like this:

FURTHER REFERENCE

- De Carvalho, I. S. H., and Silveira, O. Junior. 2006. *Uma Análise do Empreendimento Frutasã (Carolina-MA, Brasil) à Luz da Economia Solidária*