



Investing in rural people

# ROUTES TO INNOVATION

Fernando Francia



**AWARD**  
RURAL YOUTH  
INNOVATION IN  
LATIN AMERICA &  
THE CARIBBEAN



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## **DEDICATION:**

**To the unknown entrepreneurial  
rural youth of Latin America and  
the Caribbean**

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and Knowledge Centre  
International Fund for Agricultural Development (IFAD)

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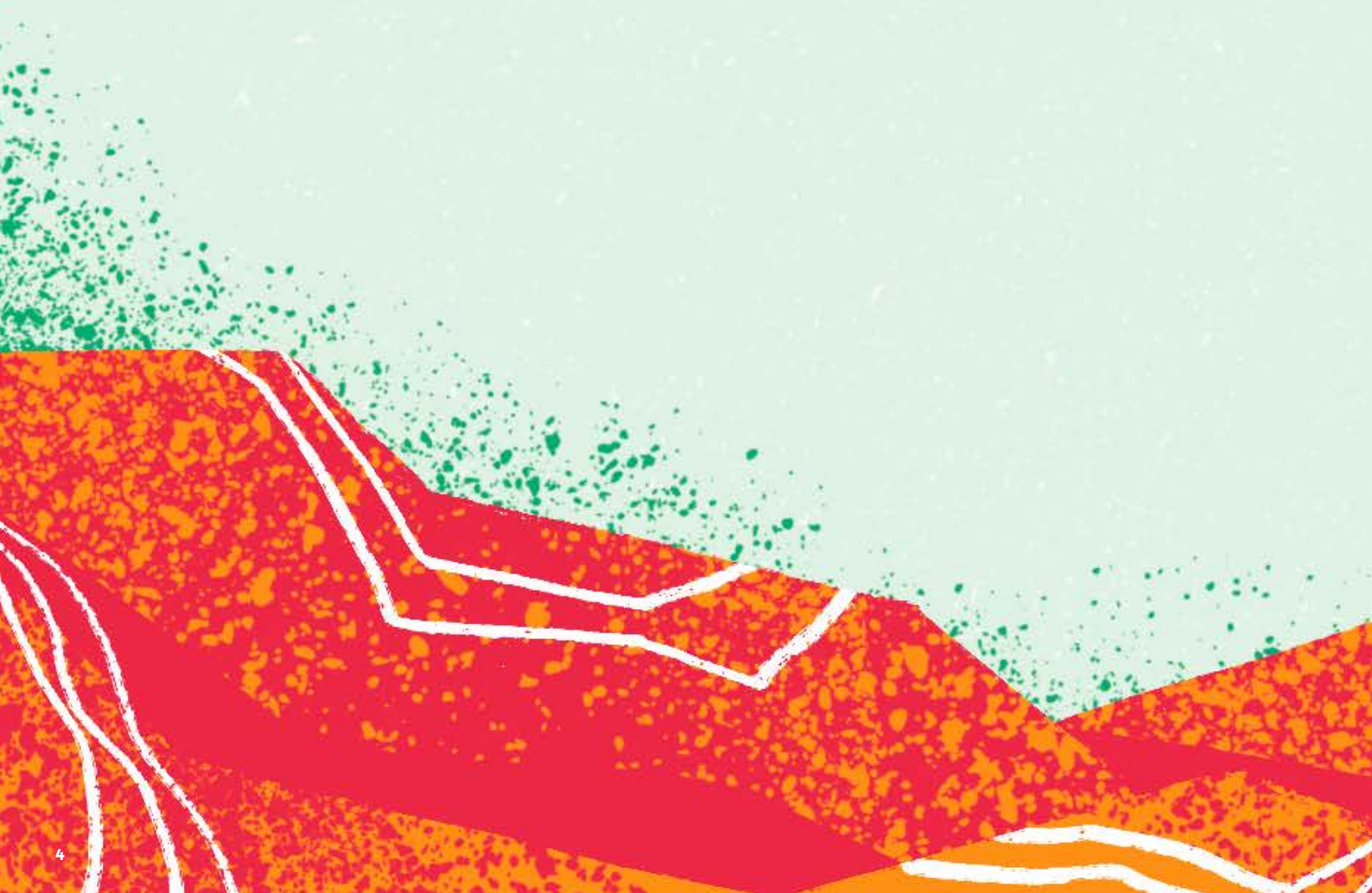
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# PRESENTATION

**For over four decades, the International Fund for Agricultural Development (IFAD) has promoted the development of rural communities in Latin America and the Caribbean. IFAD works closely with these communities in projects that open paths to their prosperity, offering them capabilities and financial assistance necessary to move forward. IFAD collaborates with state and national governments, with regional non-governmental institutions and organizations through actions and strategies geared towards benefitting small farmers as well as vulnerable groups located in rural areas.**

Within the framework of these actions, the South-South and Triangular Cooperation and Knowledge Centre for Latin America and the Caribbean, based in Brazil, launched the Rural Youth Innovation Award in January 2020, a project financed by the China-IFAD South-South and Triangular Cooperation Facility. The project, which focuses on rural youth as its priority target throughout the world as well as within the region, started from the need to identify and promote innovative initiatives undertaken by Latin American and Caribbean youth.

The Award's main objective is to strengthen the entrepreneurial capabilities of these young individuals and offer them exchange opportunities to promote sustainable implementation, dissemination, and replication of solutions to the constant challenges that small rural farmers face.

For the Award's First Edition, the selected technical categories were climate action, communication and technology, conservation, education, income generation, financial inclusion, food safety, sustainability, and vulnerable group inclusion.

The Rural Youth Innovation Award aims to support young people in applying their creativity at the service of inclusive and sustainable rural development, in search of a society that is more resilient to the effects of a crisis, such as the COVID-19 pandemic.

In these unprecedented circumstances, Latin American and Caribbean youth responded to the Award's call with great enthusiasm, reaching close to 600 proposals registered in March 2020 for participation in its First Edition. After a rigorous selection process, the initiatives were evaluated and in the end, ten of them awarded. We have followed up on the evolution of their endeavors since July 2020. Here are their stories.

## INTRODUCTION

Walking through the rural roads of Latin America, it is easy to overlook that which can be appreciated if we come closer, get involved and go beyond the surface.

Working with insects to manage organic waste, restoring threatened biomass, reforesting collectively with native species, creating organic fertilizer for agriculture improvement, starting a travel agency within a local community, designing an app to connect organic farmers with buyers, promoting a financial education initiative for rural areas, manufacturing nutritious desserts for children, organizing an organic food street market associated with a restaurant, creating a mutual aid community organization after an earthquake.

What is this list of initiatives and what do they all have in common? These are all projects managed by Latin American youths, implemented in rural areas with innovative ideas aimed at generating changes in their surroundings as well as their communities.

In Coahuila, Mexico, Gerardo searched for a way to have insects manage an entire municipality's organic leftovers and generate income from it.

In Minas Gerais, Brazil, Nondas joined a group of seed collectors in the Brazilian *Cerrado* with the intent of restoring and reclaiming the zone, as well as returning water resources to the area.

In Valle del Cauca, Colombia, Karem started with a plant nursery but decided to go further, encouraging tree sponsorship to reforest *vereda* Alaska with native species.

Benjamín researched and developed a formula to generate organic fertilizer as part of his graduate thesis. Now he teaches others how to make it and sells the product in an attempt to eliminate poison from the Guatemalan countryside.

Mauricio and Camila studied communications and opened up a travel agency where the hosts are the rural communities themselves. They host tourists and generate jobs while including farmers and indigenous groups in the south of Brazil.

Eduardo and his team created an app where organic farmers in the state of Espírito Santo in Brazil update their production numbers and companies in the city of Vitória buy their products.

Sergio lost his job and continued sharing his expertise in financial education. This opened the doors for a start-up business that provides financial advice for thousands of people in rural areas of his native Colombia and beyond.

Gian and his friends tried different recipes until they came up with a dessert for children and adults that is not only delicious and appealing, but also nutritious, as a way to help in the fight against malnutrition in Trujillo, Peru.

Naiara and Emanuel are organic farmers who partnered with Josué and his restaurant Utopia, located in a village in Rio Grande do Sul in Brazil, to introduce organic products locally by means of a weekly farmer's market.

Perseida travelled over 700 kilometers to check on her family after the Oaxaca earthquake in 2017. That visit was the starting point of an organization that brought economic revitalization to the area after the earthquake.

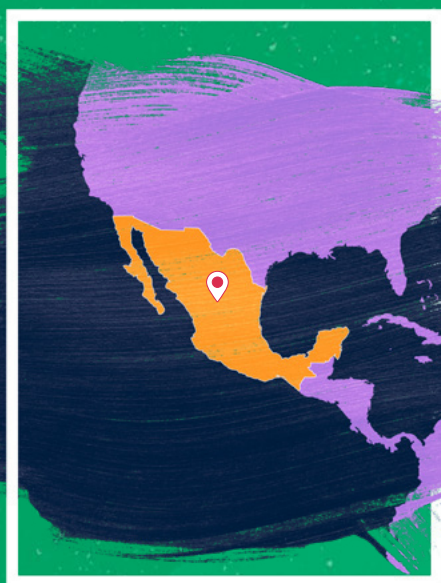
We could continue listing initiatives, innovations, and projects that are currently ongoing and have a tremendous impact on the community where they operate. The ones presented here are led by young people who were all winners of the Rural Youth Innovation Award's first edition, organized by the Latin American South-South and Triangular Cooperation and Knowledge Centre of the International Fund for Agricultural Development (IFAD), which recognizes initiatives that improve living and working conditions in rural areas of Latin America.

We are often unable to see the innovations that happen all around us and that succeed despite the lack of support or opportunities for the rural population of a given area. The stories presented here are testament to the processes that ten of those initiatives and their creators went through to open up routes to innovation.

**MEXICO:**

**Hexa Biotech**

# **WONDER WORKERS AND DREAMS THAT CAME TRUE**





## “Mom, look, Germans say that insects will be the food of the future.”

He closes the magazine he is reading and thinks: if insects can solve world hunger, what else can they do? He also thinks that tradition can sometimes offer solutions, but no one sees them.

The magazine still on top of his chest, possibly already asleep, he believes that we should leave our mark on the world through innovation. This is Gerardo Jimenez, just over fifteen years old and unaware of what the future will bring. What if insects could actually help fight world hunger? The idea stays tucked away in his mind, like a seedbed that is visited every now and then to check on its growth.

Of one thing he is certain: world hunger and climate change are problems that humanity has yet to solve and will remain unsolved for some time. Problems of this sort will continue not only in his hometown of Torreón, Coahuila, but also throughout Mexico and the rest of the world. Already fast asleep, his mother checks on him, grabs the magazine, puts it away and turns the lights off.

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Gerardo will spend hours chatting with Héctor and Amín. Not only will they be college buddies but also adventure buddies. Besides their friendship, they share the habit of imagining the future and thinking up innovative ideas.

“Can you imagine? Bacteria that eat pollution?”

“Or better yet: connecting our brain to transfer our ideas to a disc.”

“Or the internet!”

“Of course, but what if insects ate our waste and we used them somehow?”

The three will have many heated discussions. They are still young and will have innovative ideas for the future, as well as some unattainable ones.

The idea of connecting brains to the internet is now being developed by Elon Musk. The idea of bacteria that eat plastic will be proposed by Amín himself in a graduate thesis many years after that innocent conversation.

They will also think of drone deliveries—something that Amazon will accomplish in the near future—or becoming early buyers of cryptocurrencies as soon as they are released to the market.

They will always propose out-of-the-box ideas, they will want to invent something, contribute with new perspectives. Later down the road, they will propose alternate solutions to various global issues. They are always looking to innovate.

They will learn that the world is going to go through several crises. The food crisis, where large portions of humanity do not have access to three meals a day; the climate crisis, where many communities are impacted by temperature changes; the crisis of inadequate waste management faced by large cities.

One day, during one of their get-togethers, the three young men will reach the conclusion that the Germans in that magazine, as well as traditional communities in Mexico, will be proven correct. If there is so much inequality, if there are not enough resources to feed an entire population, yet there are so many insects around, why not make food from those little creatures that are so unappealing to people?

They will decide to do some research and open up a lab. Gerardo is going to be a mechatronics engineer, a branch of engineering dedicated to the unified design of electric and mechanical systems. Héctor Soto and Amin Ramírez are going to be biotechnologists.

One of their friends will say that it is impossible. If it were possible to feed the world with insects, they would already be privatized or someone would have already developed a business model around them. Another would go on to say that insects are simply a nuisance.

They will learn that 10% of greenhouse gases released into the atmosphere come from decomposing food in landfills; that one third of produced food will be thrown away while it is still perfectly edible. That is to say, food goes from the fields to the trash bin, passing through our homes. They will also learn that many resources: water, energy, land, and tractors, will be wasted in cultivating and transporting said food—still in an edible state—to landfills where they will decompose. Together, Gerardo, Amin, and Héctor will reach the conclusion that some sort of solution is needed.

“Like the Germans said, people should eat more insects,” Gerardo will think to himself.

“Let’s try with crickets,” one of the three will say.

They will find grasshoppers that could do the job, and put them in a box for breeding. However, these grasshoppers are territorial, they fight, so they’re not ideal for reproduction on a large scale in confined spaces.

They will try to find crickets—or *chapulines*—as they used to do in many Mexican communities. They wouldn’t know it then, but this will be the beginning of Hexa Biotech, though not as it will exist in the future.

The business of feeding humans with crickets will remain unprofitable for some time.

“One third of the world population eats insects, and that is a lot of people,” the three will think. Why is it not working for us? There is still no market for entomophagy. This market will flourish in the future, but it needs some time. They will continue to experiment with other insects.

“This idea with insects won’t work,” they will think.

“But they are excellent workers,” they will insist.

“What if insects ate waste? We won’t be able to sell them as food for humans, but maybe as animal feed. Eureka!”

They will try with cockroaches. They reproduce quickly, and are built to eat waste, but they attract diseases. Again, it would not work.

**“Flies are everywhere,” they will think, and use this insect, the common fly we all know. But again, they are vectors for disease.**



They will conduct more research. There must be a way to unite the waste produced by the large number of cows in the Coahuila region with the wonder workers that are waste-processing insects.

Their research will be carried out with support from Universidad Antonio Narro. They will meet the entomologist Dr. Teresa Valdés Perezgasga, in other words, an insect expert. She will open their minds to new insights thanks to her expertise in insects from that region. They will have many conversations with her. They will form a sort of brotherhood in favor of insects that will expand over time. During one of those conversations, Dr. Valdés Perezgasga will suggest the use of one of the fastest and most hard-working creatures that does not spread illnesses: the black soldier fly (*Hermetia illucens*).

They will walk away from that conversation enthused, talking over each other, giggling and clenching their fists in total exhilaration. They will run to the lab, knowing that they are starting something big. The four of them will carry out experiments, do the work, take notes, and search for the perfect amount of food, organic waste, humidity, and quantity of fly larvae.

A new world will open up before them. They will dive into the bioindustry, though they will have already taken their first steps with the crickets. Working with insects is part of this industry, which is characterized by using nature as its best worker. At the end of the day, insects are the ones doing the hard work, being highly specialized for their task.

Along the way, they will be amazed by the way these insects transform matter. They feed on organic waste and food leftovers and reproduce at a staggering pace. They feed, grow and reproduce, laying dozens, hundreds, and even thousands of eggs while requiring very little maintenance. Watching these insects exponentially increasing in number is a wonderful experience. It is nature speaking.

“That is a work of art in itself,” Gerardo will say.

“You feed them and they do the rest,” an amazed Amín will add.

Those tiny creatures offer protein and organic waste management. As it turns out, the wonder workers are very noble creatures.

For example, the black soldier fly has no mouth as an adult; it lives for one or two weeks at most. All it does is reproduce, oviposit and feed as larva. The larva turns into a pupa after two weeks and stays like this for a six-month winter period, so it does not die. Later during summer, it turns into a chrysalis and the cycles go on.

They will realize that these larvae—which grow to be up to 8,000 times their weight—are pure protein. As they are fed with waste, they cannot be made into human food, but they can be used for chicken feed. Coahuila is also a cluster for chicken farms, one of the main ones in Mexico.

If humans do not eat them, let the chickens do it. Bags of chicken feed will be sold. They will gain notoriety for their use of organic waste made from the local market's food leftovers.

The three young men from Hexa Biotech will remember their question from many years ago.

“What if insects ate our waste and we used them somehow?”

They will be ready to test it all on the field. They will work with two approaches: feeding the insects with food leftovers or with manure. They will know that Torreón and its vicinity have an abundance of cattle farms and therefore, tons of stool from the two million cows that graze and ruminate before heading to the slaughterhouse.

They will be open to partnerships and business in general. They will look for cattle ranchers in the area, eager to put the cow dung processing into practice.

They will explain to ranchers that it is possible to process large quantities, create natural fertilizer, eliminate methane gas and, at the same time, generate a marketable product.

All this will become the circular economy and the innovation they had been pursuing during their teenage talks.

It won't be long until they convince a rancher. This same rancher will finance the investment for the residue management system that will be implemented on his own farm.

They will finally prove that their research can be successful. The rancher will keep the compost and Hexa Biotech will keep the chicken feed so they can sell it.

Success will be immediate: the rancher's 7,000 cows will generate “food” for the larvae to grow. After some weeks, the larvae are harvested, with some of them being moved to breeding centers where they live out the rest of their life cycle and lay more eggs. The remaining larvae—which is most of them—will be dried under the sun and later bagged for sale. Pure protein.

Things will go well, but their success will also bring some bad news. Their partner will want a financial stake in Hexa Biotech if they want to continue their business relationship. The cycle will be broken, Hexa Biotech will risk running out of raw materials.

They will have to go back to the lab, run more tests, more experiments, and take more measurements. They will not be able to continue all they have accomplished and they will have to look for new raw materials.

However, the knowledge they gain will remain and the lab facilities will be modified to directly handle production.

They will go back to using food leftovers. Manure will no longer serve as raw material, so human food residue—still mostly edible—will have to do. Where can they find such large quantities of leftovers? The answer will be obvious.

**“The wholesale food market often doesn’t know what to do with all the unsold produce. Now, this food can be put to use.”**

They will come to an agreement and, in a few days, weekly delivery trucks will enter the new processing plant, where once there was a home lab.

The wonder workers will carry on, eating market leftovers instead of manure. They are the black soldier flies. Hexa Biotech will once again save their line of action through innovation and their adherence to science and research. Chicken feed production will resume and continue to grow. Tons will be produced.

They will occasionally think that all is lost, but out-of-the-box thinking will always bring resurrection.

The news that Hexa Biotech can take care of large quantities of organic waste will spread all over the city, until it reaches the offices of the municipal administration.

The issue of leftovers in large population centers will be difficult to solve, but reducing the amounts that end up in landfills will be the municipal government’s goal for Hexa Biotech’s idea.

A new initiative will begin and the way in which raw materials are obtained will change. Trucks won’t be arriving every week; instead, Hexa Biotech will collect the organic waste after the municipality’s residents have set it aside.

The business model will change again because it will go from processing a single farm’s cow manure to processing organic waste from food markets and eventually, collecting waste from all over the city. Chicken feed will remain the main product, with fertilizer as a byproduct.

They will be able to transform 25 tons of residue into 15 tons of organic fertilizer and 5 tons of animal feed in only 2 weeks.

They will get together as they did as teenagers and come up with a new idea.

“We have to make it easier for us to know when there is organic matter for pick-up.”

“Sure. We can’t just walk around town asking everyone.”

“What about a geo-referral app that would do it for us?”

Artificial intelligence will become an area of action to be applied to residue collection. At the start of 2021, they will still be testing and looking for the best methodology to help them fulfill their commitments. Always aiming at their goals. Later, they will even propose an app to stop the new coronavirus SarsCov2, which would spread all over the country and the world. Always seeking to innovate.

FOUNDERS OF HEXA  
BIOTECH IN THEIR FACILITIES



In 2020, they will receive the International Fund for Agricultural Development's (IFAD) Rural Youth Innovation Award in the sustainability category, due to their transformative capabilities and their development of a circular economy.

They will write on Facebook about the importance of wonder workers, bio-industry, and permanent innovation.

**“At Hexa, we are very proud of producing sustainable protein for feed used in poultry and fish farming through a negative carbon footprint process. This means the process eliminates more carbon from the environment than it emits. How do we do it? With insects, nature’s wonder workers! We evaluate and use food waste to feed our insects through a clean and innocuous process, producing premium feed with a high protein content.”**

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Gerardo wakes up, still tired—as though he had been exerting himself all night—and thinks about the futuristic dream he just had. He smiles and predicts that he will definitely be able to make a difference.

“Breakfast!” someone downstairs shouts.

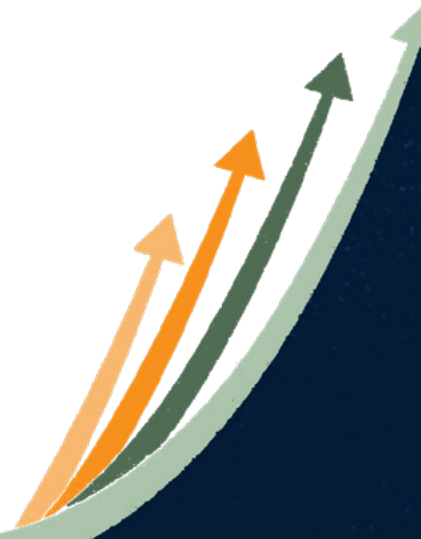
“Coming!”

He is happy because it is Friday and he is going to see his friends. They always joke about inventing things, imagining things, and thinking out of the box. It’s good practice for future plans. Never throw ideas away, always keep imagining new things.

Now he knows that for dreams to come true, one needs to work hard on them, take them to the next level and do everything possible to forge one’s own destiny.

He finishes getting ready. There are a few days left to finish his last year in high school. He goes downstairs for breakfast and says:

“Can you imagine? What if insects ate our waste and later we used them somehow?”



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**BRAZIL:**

**Grupo de Coletores  
do *Cerrado***

# **HUMAN MUVUCA FOR THE RESTORATION OF THE *CERRADO***





I've been here for thousands of years. I reproduce, grow, leave the seed stage, and new seeds sprout from that which I become. People consider me vital, though I have no life if I'm not in the right place. I am considered diversity itself, though I can't be diverse if I'm alone.

Perhaps you are unfamiliar with the *Cerrado*. The blazing orange twilight gives way to nocturnal riches, the sounds of nature awakening while others are sleeping. There is a silence that is not truly silence, but peace. The land is rich, diverse, hosts flora and fauna, waterways, a great amount of immeasurable wealth. Maned wolves, black-faced ibis, anteaters, and some other creatures roam these lands. This is the second-largest natural landscape in South America, located of course in Brazil.

One of my jobs is to maintain biodiversity within the *Cerrado* and that is why I am sought after, taken care of, exchanged, and sown. I am the seed and I am going to tell a story.

Many years ago, people living in the *Cerrado* took care of me, they improved my quality by combining me with other sister seeds, and they would watch me grow. Before the people of this land worked with me, nature itself did the work of multiplying us.

In return, my surroundings gave the people diversity, food, water, materials for clothing, housing, and everything else they needed.

But the world started to change. All of a sudden, people stopped planting me with other seed varieties, using me instead for large-scale crops from a single seed type. I was no longer being improved. Instead, they tried to modify me in ways that I could not understand. Few remained who respected and recognized me.

Furthermore, they started planting eucalyptus trees—for example—from Australia, which were strangers to these parts. These new species have a huge impact on the Brazilian *Cerrado*'s ecosystem, particularly when planted as a monoculture.

We didn't have to wait long for the results of these actions. The *Cerrado* started losing diversity, losing resources, and losing water that served not only the local area but other regions, as well. Even water as a resource for human consumption became scarce.

The word *cerrado* means thick or dense in Portuguese. The word is used to name a tropical savannah region that covers almost one fourth of the large South American country. It represents two million square kilometers of vital importance not only to its own ecosystem but also to the other four Brazilian ecosystems: *Amazonia*, *Pantanal*, *Caatinga*, and *Mata Atlantica* or Atlantic forest. The *Cerrado* hosts around 5% of all world species and around 30% of biological diversity throughout Brazil.

**Unfortunately, neglect, species substitution, deforestation, and other issues have caused the loss of half of its vegetation.**

SEEDS FROM  
CERRADO



Furthermore, there is another threat in the area: the expropriation of lands belonging to the 120 traditional communities in the region. Facing the twofold danger of loss of lands and ecosystems, Alto Rio Pardo residents have managed to mobilize and create a reserve for the sustainable development of 38.000 hectares in 2014, which is becoming a model of best conservationist practices.

This is why, among many other reasons, we seeds are so important.

It hasn't all been bad news. In 2017, a group of people got together to look for solutions to the *Cerrado's* problems; people who inhabit this land, and would like to see it flourish with diversity, richness, and abundant water.

They are the Nascentes Geraizeiras Sustainable Development Reserve Collectors and Restorers Group, located north of Alto Rio Pardo in the state of Minas Gerais.

They have developed activities involving seeds. Some of the activities involved collecting, processing, weighing, and storing seeds of over 60 species of gramineae, herbs, shrubs, and native trees. Their goal is to restore the *Cerrado* area. This is something that we seeds used to do on our own by just growing freely. Now we need people to organize collection and sowing activities to help us do our part.

The activities take place collectively with the participation of 33 traditional communities called "*geraizeiros*", composed primarily of the young and elderly, who exchange knowledge and receive training related to land restoration techniques.

I'm very happy with the work done by the Collectors Group because I often remain in the fields, but am unable to grow and I get lost, failing to accomplish my life's goal. They—the people in the organization—collect me so they can later help me germinate. Sometimes, they transfer me to a different place so I can do my thing.

Now, we seeds grow all year round and collaborate more effectively with the *Cerrado* restoration. This is no easy task for the collectors but they do so efficiently.

The group gets together, multiplying and spreading knowledge, much as they spread me and all the other seeds they collect.

During their meetings, collectors look for ways to restore the *Cerrado*, share techniques and information, and train to do it as efficiently as possible. Their main objective—and mine, in a way—is to restore the area and bring water back to the region.

The *Cerrado* restoration movement is committed to the community. Local communities started these restoration activities because they see them as necessary to their own survival.

As a result of those meetings and exchanges, they started to learn about us. We often serve multiple roles: we can restore, be used for trading, and even be used to make handicrafts.

I myself have seen how our recovery spurs them on to organize trading events, educational courses, and all manner of activities.

Of course, we're not all the same. Some of us work to restore the *Cerrado*, but there are also others known as creole seeds, which are much older. In general, creole seeds are more often used for agriculture. Those seeds have also been stored, improved, cared for, and exchanged. They generate various types of corn—in different colors, for example—which are fit for human consumption.

This kind of information isn't learned in school. It is learned from farmers and indigenous people, while fairs serve as a way to conserve and multiply knowledge.

Because knowledge is similar to us seeds, the more it is shared the more it reproduces. If a seed is shared, sown, and collected, it multiplies. If knowledge is shared and later shared again, it multiplies instead of disappearing.

The people belonging to the Collectors Group learn when they get together and talk amongst themselves. Much of that knowledge is already present in the community, passed from one generation to the next.

**During their work in Alto Rio Pardo, the group has collected close to one hundred and fifty different species, though there are thousands more in the area. To achieve broader diversity, they intend to collect more seeds, share them with indigenous and farming communities, and above all, work to restore the *Cerrado* using us.**

I enjoy diversity. I especially like being around other seeds. Indigenous communities knew that and even had a word to describe this mixing of seeds that is sometimes necessary: *muvuca*. Because it is often the case that a seed grows best when planted next to others, and their unity breeds strength. I don't know much about people, but I've heard they are much the same. They enjoy being together, unite to become stronger, and derive wealth from their diversity.

The *Cerrado* Seed Collectors Group embraced that concept, they liked the idea. The sowing technique they use entails the mixing of seeds from different species and the improvement of agriculture and individual fields.

During meetings, sort of like a human *muvuca*, farmers learn from indigenous people, engineers exchange knowledge and everybody learns, everybody benefits. Group members learned a great deal from indigenous people, applying to their own work what had been done in indigenous territories for many years.

CERRADO SEED  
COLLECTORS WORKING  
ON A SOWING DAY



Coming back to us seeds—the ones that help the *Cerrado* restoration—we like being in the fields. There, our work begins underground where it is dark and humid. Other types of seeds are meant for storage, trading, and later, to be used in agriculture.

During the exchanging of seeds, there is the exchanging of knowledge. Sometimes, we have different names in different communities when we are all, in fact, the same. That is one way of learning; someone will inevitably give us a scientific name that remains the same all over the world.

The group's main objective is conservation and through conservation, it developed a version of its work that started generating income for some of its members.

Some participants organized a cooperative to buy seeds for trading; others started planting and harvesting seeds to sell, processing them into juice or other products sold between humans. Though they still need to formalize their operation, this creates another path that can entice the youth with the possibility of generating income within their own communities.

Most members of the *Cerrado* Seed Collectors Group are women. We seeds have a very close relationship with women. They are often housewives, who take care of house chores, take care of their children, and later participate in group activities, collecting fruit, working on production, and making handicrafts.

The group's novelty stems from the mix between traditional knowledge and technical, academic knowledge. For example, Nondas Ferreira is a forestry engineer who had to study elsewhere, but eventually returned to Alto do Rio Pardo. He is now one of the group's technicians, sharing information that he always says came from the people who have lived in the area the longest, the people that treated me with respect and veneration.

In 2020, humanity endured a global pandemic and the group's activities had to change a bit. However, the group's numbers swelled after many people fled the cities to move to the countryside. This area within the state of Minas Gerais, by virtue of being less populated, served as a refuge for these people.

Also in 2020, the group received the International Fund for Agricultural Development's (IFAD) Rural Youth Innovation Award thanks to their members being young people who work on the preservation of the *Cerrado's* native species.

For the *Cerrado* Seed Collectors Group, the future has to be better than the present. They wish to restore their living spaces, including the entire *Cerrado*, but starting with the areas closest to them. For the group, strength comes from the improvement of their towns, potentially even attracting economic activity to the zone. There are no universities in this region and not enough jobs. Consequently, young people tend to move away and very few come back.

Thus, young people see the group's activities as an opportunity to learn new things: forestry management, conservation, and the possibility of earning an income at the same time.

The most important part is guaranteeing the availability of abundant, quality water in the future; that the *Cerrado's* restoration helps to maintain and improve water resources in the area. Nondas, and many other young people, dream of being able to restore devastated areas and turning them back into their beloved biome.

Life comes back, diversity comes back. That is why their dream is to be able to restore the land, the fields, the *Cerrado*.

This is also my dream. When I'm in a dark and humid spot—in the middle of the *muvuca*—I feel that everything is going to be alright, that I'm going to grow and become a plant, shrub, tree, the whole forest that will prevent the *Cerrado* from disappearing. I will be a seed once more and my cycle will begin anew, as it has done for thousands of years, again and again.

This is a common story in Minas Gerais that the *Cerrado* Seed Collectors Group makes possible.

We seeds will remain in the *muvuca*, trying to restore the *Cerrado*, feeding the population and the animals, making sure that nature follows its course despite so many opposing interests, but rejoicing at the fact that there are humans with the potential to lend us a hand with this monumental task.



**Cerrado Seed Collectors Group, Brazil**  
Facebook: @RDS-Nascentesgeraizeiras  
Instagram: @coletores\_restauradoresrds  
Web: [www.nascentesgeraizeiras.com.br/](http://www.nascentesgeraizeiras.com.br/)

**COLOMBIA:**

**Sembrando Vida**

**MAGIC SPONSORS**



## “What am I going to do with these trees? No sales today,” I think.

The trees are getting bigger and if they aren't sold soon, they won't be good for planting anymore. I see those trees and feel a profound sadness. This is as far as my entrepreneurship takes me, my dream, my idea of collaborating with the environmental development of my *vereda*, my hometown. I've only just started my business and it's been tough; selling these trees is not easy. I had acquired a variety of seeds from native and endangered species; I knew exactly what to do. I put my heart and soul into the project, but things didn't turn out as I expected. “What can I do now?” I asked myself.

This subject has always interested me. I was already employed, but in a different region of the department. I wanted to contribute to my hometown, where my people are, so I had to quit my job. I want to make a difference, but it has to be in my *vereda*, Alaska.

This land has gone through many hardships, such as the time when paramilitaries carried out a massacre. Unfortunately, these were common back then, in times of war. I was young then, and my family moved away. We returned after some years, and I developed a unique sort of affection for this small town in the rural zone of Guadalajara de Buga municipality, in the Valle del Cauca department in Colombia.

A few months ago, I started my plant nursery, spurred on by my passion for forestry and my studies in climate control technologies from the National Learning Service (SENA), an autonomous public learning institution that offers technical studies free of charge. My degree in Citizen Participation for Peace Building from the Instituto Mayor Campesino (IMCA), obtained in 2017, prepared me to work with various aspects of territory planning. “To Karem Bejarano”, the degree reads, my name printed upon it. This institute provided me with some seed money, which I used to develop the idea for a plant nursery. And, well, if I can't find a job in my *vereda*, we'll have to create one. Time to work the land.

That's how the plant nursery was born and I fully intend to recover native and endangered species within my region. Well, they haven't sold like I want them to. I receive orders for a thousand trees and I cannot keep up with that amount.

One of the problems we face is the indiscriminate cutting of trees for agriculture, wood utilization, or carbon mining in the region. My plan is to be able to tackle those problems and, maybe in the future, provide jobs for the community. The lack of job opportunities is another problem affecting us.

I keep thinking about what people told me in Mexico. Just yesterday, I came back from a trip to that country, where I went to a youth meeting organized by the Pacific Alliance. It was a wonderful event with over 500 young people, all entrepreneurs full of passion and with thousands of ideas materializing from thin air. There were around fifty people from Colombia alone.

Looking at the ideas presented by people like me, people from Chile, Peru, Colombia or Mexico, I thought my idea had everything it needed to succeed. However, maybe there's something missing. I already considered environmental and climatic components, native seed preservation, and water basin conservation. My idea is technically sound, as this is my area of expertise. But, what is missing?

PLANTING CAMPAIGN  
ORGANIZED BY  
SEMBRANDO VIDA TEAM



“You should get other young people involved,” someone told me during one of the presentations I attended, though I couldn’t identify who had said it by the time I looked up.

The thought of involving young people, involving others, had my head spinning. I have a business, but I’m not doing much, I’m stuck. I am adamant that environmentalism is good due to all the seeds I’ve collected, but they’re also not being planted; I can make no assurances of success.

We learned a lot during that youth meeting. It got me thinking nonstop.

Now I’m here, watching my little trees grow. They are like tiny ticking clocks that will grow too large to plant at any given moment. Such is life, it grows and grows. I need to find a way to sell them, to ensure that they can be planted and that people get involved. I need a strategy to get young people involved in the planting. It has to be a campaign that gets people to engage with each individual tree. Have the sponsor the trees and...

“Become a sponsor and be a part of the process!” the thought suddenly popped into my head.

That would engage people, provide them some sort of concrete benefit, get them to participate, and of course, create a campaign to ensure that these grown trees can be planted. Not just that, the idea is fully manageable.

“I’m going to post it on Facebook,” I think, opening my computer. People enjoy posting environmentally motivational phrases, but how many of them actually do something after posting their good intentions on Facebook? Time to work the earth!

I discussed the idea with my friends and they thought it was a good one. I make a public post on Facebook and ask people to repost and share it. “I need this to become viral,” I think.

Everyone has good intentions, but actually acting upon them is not as simple. Now you have a chance to do something, I start telling others.

Convincing others is hard. Many say that they don’t have the money, but of course, I will later see them with a new purse or a new blouse. I know this idea can work.



15.000 Colombian pesos, a little less than five dollars, is a good price.

“You can be a sponsor and show up on the day the tree gets planted. I guarantee the planting location; a small, one-meter tall tree; the digging; the fertilized soil; sufficient spacing; and a sign on the tree to help you recognize it. Of course, you’ll have to plant it yourself and I will handle the fertilization and ongoing maintenance. Naturally, you can keep any pictures you take.” I tell them.

The first tree to be sponsored was very exciting and encouraging. Logically, the sponsor was part of my close group of friends. “I need to go further,” I thought. Suddenly, my cell starts to ring over and over again. They just keep coming. A family wants five trees. A friend posted it on a WhatsApp group and they want ten.

“Dad, people are responding!” I shouted. We were jumping in excitement.

My Facebook notifications wouldn’t stop ringing. My friend Lina from Chile wrote:

“I want to sponsor three trees. Do you have any left?”

Of course I do! She can’t plant them herself, of course, but it doesn’t matter. I’ll plant them.

The project starts gaining traction, but now I need to figure out where to plant them. Just the other day, I noticed an area in need of reforestation. I will talk to the landowners to ask if they’re interested. It would be free of charge for them and we would have a place to plant our 400 trees.

Planting day arrived. This is Sembrando Vida’s first reforestation campaign. It will take place on Sunday, 20 October, 2019 at 8 a.m. in the Tres Esquinas sector, by La Milagrosa cascade. It is a beautiful place for reforestation.

To call people out, I post a message on Facebook. “This is a cordial and heartfelt invitation to all of you who are able and willing to sponsor one or more trees. This campaign is aimed at the recuperation of our Guadalajara River.” I want to convince everyone to collaborate. It’s easy, simple, and doesn’t cost much.

The message closes with “water gives us life, and being responsible gives us water,” alluding to the importance of reforestation in the preservation of water basins—the Guadalajara river’s in this case.

I’m ready very early on Sunday; I have butterflies in my stomach.

The first ten people arrive. It’s 7:30 and I expect around 30 for today. Even though I have over 150 trees, few people confirmed their attendance.

“Look, Karem, more people are coming.”

I look towards the farm’s entrance and see many more people. We can’t believe it, almost a hundred people! It’s like they’re magic, just popping up all over. Some have their 15.000 pesos, ready to sponsor a tree right then and there. They are more than welcome to do so.

It was a success. My excitement lasted two more days, as more people came by to plant.

**“We saved them!”  
I excitedly told my  
sister. “Remember  
how we didn’t know  
what to do with them  
a few days ago?”**

KAREM, FOUNDER OF  
SEMBRANDO VIDA, IN  
VEREDA ALASKA



It is not just planting for the sake of planting. We do it with all the necessary planning and follow-through. What really guarantees the success of such an activity is the aftercare that is provided to the trees. That's what makes my project a little different from other initiatives. Other entities announce planting campaigns with thousands of trees, but fail to provide ongoing maintenance. Out of those thousands of trees that were photographed and publicized, only a few hundred or so survive.

I publish the photos of people happily planting trees on my Facebook and that generates some traffic. I will need to schedule future events.

I have enough trees for another plantation drive in November and another one in December. These will require planning and preliminary work on the nursery. I've found my dream job that combines social and environmental issues, all in my own *vereda*!

My friends continue to sign up. Some who participated in the first campaign are willing to participate in the second and third. Eventually, friends of friends join and it continues to snowball from there. Even friends from other

countries. They call from Madrid, Miami. My friend Lina, who lives in Chile, comes to visit and wants to see her tree along with her daughter and family. And they want to sponsor even more trees.

2019 is coming to a close and we've planted 800 trees so far. I can't believe it. This endeavor has turned into a family operation, and we can even provide jobs for other people, since we can't do it all alone.

I have more work aside from the plant nursery—which continues to sell various species—and the Sembrando Vida tree sponsorship program.

Work becomes more demanding; I now have to manage sponsorship advertising, visits by sponsors to their trees, the preparation of trees for upcoming activities, coordination with the farm owners who allow us to use their lands for the planting.

This project requires more than digging a little hole and chucking the tree in. It requires time, knowledge, and dedication.

On the bright side, many people collaborate, sponsor more trees, and commit to the cause. These people are grateful and ask me about upcoming activities. Sometimes neighbors and Facebook friends will like posts about the activities and will ask to have their name on a tree.

Farm owners are also willing to participate. Some of them end up sponsoring 20, 100 trees at a time, as their property would be reforested with a greater variety of species. If you wish to register these trees and make use of them, it can be done, though not with every species. These are trees that enhance a landscape's natural beauty, that bear fruit and assist with the diversification and protection of water basins. They represent an added value.

Sometimes we are taken by surprise. A woman called from Madrid to order the sponsorship of 15 trees. When something like this happens, I look for people who have already sponsored trees and we plant the new trees during a sponsor visit to minimize the amount of recruitment that needs to be done. That takes a whole day of work.

Those who live far away can visit their trees after they are planted if they were unable to come on campaign day. When they decide to visit Colombia and if they want to visit their trees, I can arrange their visit at no added cost.

I'm constantly checking on those trees. I visit the locations where they are planted, I gaze at them, and smile affectionately. They are my children. Sometimes an animal will roam about, ants will eat away at the tree, root rot sets in; one must remain vigilant.

One of those species, for example, is the *Carcaoli A. Excelsum*, a giant tree endemic to humid and dry tropical forests. It develops best along rivers and its fruit is important to wild fauna.

I have developed professional relationships in different industries and enterprises. Some of them consider the project as part of their corporate environmental responsibility. For others, it might represent a form of community service. In the future, I'd like to certify the carbon capture performed by the planted trees and in this way, allow several companies to officially reduce their carbon footprint. This activity can simultaneously be lucrative and good for the environment.

Companies that generate pollution as a result of their activities can offset their carbon footprint by planting trees, aided by the technical know-how that I can provide.

2020 was an especially difficult year due to the pandemic. Even with the various safety protocols in place, we managed to organize more activities, with fewer people and proper distancing, but we managed to plant some 1800 sponsored trees. The magic was still there. Those numbers will continue to grow. Moreover, we plan to focus on the recovery of homes and façades using art as a means of expanding tourism to the *veredas* that have been impacted by years of violence.

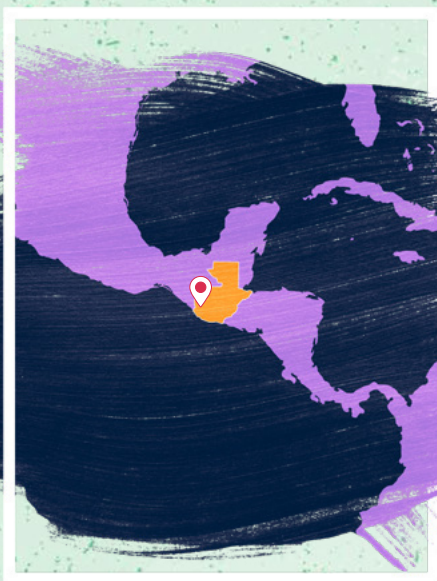
For 2021, my plans are to continue with the campaigns. The activity has reached greater dimensions and many municipal officials have recognized the work I do within the community. This is going to be a great year.

People feel joy planting their trees and knowing that they participated in an endeavor that is beneficial to the environment, our watercourses, and fauna. This is a win-win scenario: the person sponsoring a tree gets the satisfaction of aiding the environment by planting a tree themselves and the nursery gets to find homes for its many trees that would have otherwise grown too large to plant. Not only that, but the environment also wins! We all win

**GUATEMALA:**

**Flor de tierra**

# **YOUR PRESENCE IN EACH HANDFUL OF DIRT, GRANDPA**



I did it for you, for you, and for our Maya people. You were my main supporter, my motivation. In the last few months, during my visits, I would tell you about each development, each finding. I could sense your excitement, your support. Now, grandpa Mincho, you're no longer here, but I know you are proud of what we're doing.

I've decided to go further. I've finished my thesis and become an agronomist. Benjamin López, engineer. I owe my love of the land to you and grandma Maria. As I was presenting my thesis, I couldn't help but think back to my childhood, when grandma used to come back from working the land with her vegetables, bringing tomatoes, potatoes and fresh food for us.

You were like parents to me. You know this, you raised me. Now I want to give back some of what you gave to me. Not just to the both of you, grandpa, but to all of our farming population.

How is it possible that we continue to farm using agrochemicals that poison our food? They not only poison the farmers who apply them, but everyone who consumes their products. "That is how they were taught, yes," you used to say. Ultimately, farmers become increasingly dependent on outside supplies with each passing day.

That is why I trusted your words "Stay strong! Keep pushing!" For many years now, every field—almost all of them—has been fertilized with chemicals.

Grandma's vegetables were not like that, right? That was why I knew it could be done differently. I passed, finished my thesis, and had it published. "Benjamín López," my name, signed on the published thesis. I'm very proud of my name, my grandfather's name.

Not only did I receive a stipend to complete my thesis, but it was also published. You were unable to attend the thesis presentation. I had to prove that natural fertilizer—full of microorganisms—not only produces a bigger tomato with a higher protein content, but it also benefits the soil with better nutrients.

I managed to accomplish my goal thanks to your encouragement, Grandpa Mincho. You set a great example to follow.

Your life—that of a child expelled from his home, who thrived despite living through illness and poverty—was an example. Your tenacity, commitment, strength, and solidarity made an impression on me.

With my thesis, I proved that you were right. My entire career at the Facultad de Agronomía de la Universidad de San Carlos de Guatemala was spent thinking of our farmers, those who dedicate themselves to the earth, and how they need a reliable alternative to the use of chemical fertilizers.

Do you remember when I mentioned that the Inter-American Institute for Cooperation on Agriculture (IICA) had released a call for thesis projects in need of financing? Oh, how we celebrated! Not only for having received the financing but also for having convinced the evaluators that my research was feasible. All I needed was to procure adequate organic matter to grow tomatoes, right here, in the western part of our country, where the use of chemical fertilizers for tomato and potato cultivation is most prevalent.

Even my own professors seemed wary of my proposal. It seemed like my evaluators were of a similar mind. They doubted my proposal, but I convinced them in the end. We convinced them in the end. You were always there with me.

FOUNDER OF FLOR DE TIERRA,  
IN TOMATO PLANTATION  
GREENHOUSE



Iván Montejo at the University of Matanzas' "Indio Hatuey" Experimental Station in Cuba has helped me a lot, providing information on mountain microorganisms.

"Right?" I would tell them, "These books say it can be done, so I will show you how in the field." I had to read profusely to understand relations between the soil, its microorganisms, crops and everything else. In the end, my project was approved for financing, a small token of support for my thesis' first investigation.

I want to be supportive as you were and keep my feet on the ground. Much like grandma, who would take me to her vegetable garden, teach me, and forbade me from ever losing my connection to the fields.

That is when my passion was born. The benefits we reap today came from the seeds sown back then.

When I told you I would write my thesis on tomatoes and "the evaluation of organic matter for their cultivation in macro tunnel conditions along two locations of the San Marcos department," I could see your satisfied smile. Yes, your grandson was going to demonstrate what had always talked about: organic fertilizers can provide better results, as long as the local cultural and climatic contexts are taken into consideration. You were there.

You were there when my work was awarded "best thesis" in the Centro Universitario de San Marcos at the Universidad de San Carlos de Guatemala. We celebrated those achievements together. The look of happiness on your face spoke volumes. I watched you and understood that greater strength lay hidden within.

My thesis effectively proved that it was possible to grow food without using agrochemicals. However, both of us knew that proving it would not be enough.

"What good does it do to be proven correct if the theory isn't put into practice?" We asked ourselves.

"You need to make this real and take it to the fields," you told me.

At my thesis' conclusion, grandpa Mincho, I myself wrote: "The dissemination of the research here described should be extended to zones of tomato cultivation under macro tunnel conditions with similar environments to the locations tested, promoting the voluntary participation of farmers in validating chicken bokashi and mountain microorganisms treatments."

Both of you taught me all of it and I attended college to further my understanding of the knowledge I obtained at home, as well as confirm it.

That year ended with the worst news I could ever have received. Your stomach cancer was spreading and the medication used for your treatment damaged your bones and lungs. December 4th, 2019, is a day that I'd rather not remember. Since then, when I look into the sky, I see you in that star. Yes, that one star.

I could feel your pride, you know? I could see it in your face. Because I carry your legacy deep within me, I wanted to go further. Your words echoed in my head: "Keep moving forward."

You have been that fundamental part of me that says "It needs to be done, understand? You need to work towards that dream." It didn't matter to us that people would eventually be able to make their own fertilizer and would stop buying from us. What we wanted, grandpa, was for Guatemala's agriculture to change and people's diets to improve.

I had already studied the impacts of agrochemicals on people's diet and health. In fact, grandpa, chemicals could have caused your illness. Our diet can have an impact on several illnesses, and as it turns out, vegetables treated with chemicals can make us ill instead of improving our health. Moreover, the farmers that apply said chemicals could unwittingly poison themselves, as well. This needs to change, grandpa. I promised I would work towards that goal with all my might.

We were unable to prove these chemicals caused your disease, but we strongly believe that agrochemicals have a strong effect on cancer rates in our societies.

Because of this, you were always present in my promise to move from studies to facts, from the classroom to the field. We had to do it. We had discussed it and started working the land.

Our discussions helped us realize why alternative organic fertilizers hadn't worked.

As it turns out, many organizations, institutions, and corporations had tried it before, but they used products that were not compatible with the region or they tried to have farmers make their own fertilizer, not recognizing the established purchase culture and the lack of sufficient time to develop said organic fertilizers.

## **We tried to do it differently.**

While you were sick in bed, I would visit you and tell you about our accomplishments. You never got to see—in this life—our business established. One thing has changed since we delivered those first bags to local farmers: the bags have a label on them now. However, their content is the same.

Those small bags carry more than just fertilizer, as you so clearly told me. They are filled with love, concern for the earth, tradition, and social change in Guatemalan agriculture.

Within those small bags, we find our Maya culture. Within those small bags, we find hope for a better future for my country's fields. Your presence is felt in each handful of enriched soil that springs from this idea that we once had.

FLOR DE TIERRA GROUP AND  
SOME QUALIFIED FARMERS



At last, we are officially an established company: Flor de tierra. Now, many farmers buy our product, not just the ones who participated in our research.

You witnessed our birth as a company, saw your grandchildren Ernesto and Guadalupe—my siblings—and their friend Cristian come together for this endeavour.

That first year in 2019, we managed to cover our expenses, make some investments, pay a small stipend to our workers and partners, and even make \$1000 in profits! Per your advice, grandpa Mincho, we reinvested it all.

We also received a contribution from Social Lab, a \$7000 grant for developing businesses, which we used to purchase necessary equipment.

2020 was a difficult year, you couldn't even imagine what happened. A pandemic swept the globe and affected everyone. However, we continued to grow. In that same year, we even won the International Fund for Agricultural Development's (IFAD) Rural Youth Innovation Award. We managed to sell quite a lot and made \$3000 profit, not counting the investments and expenses, of course.

We have many plans for the future. Our logo is brand new, grandpa. We are now in 2021 and we have been interviewing prospective salespeople. They will make sure that those small bags of dirt are scattered all over Guatemalan fields. We will work even harder to increase sales, and make this enterprise a sustainable endeavor to prove that it is possible to farm without chemicals, using natural fertilizers. That is our goal for the future. Beyond that, I will continue my training and eventually receive a scholarship for the Centro Agronómico Tropical de Investigación y Enseñanza (CATIE) in Costa Rica.



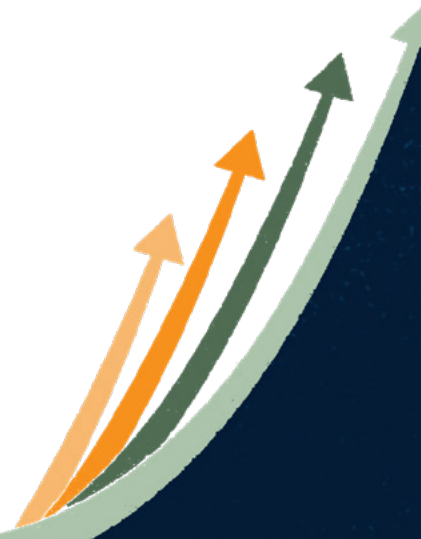
Our goal is to change the local agriculture, as we so often talked about, right? So we started one bag at a time. We sold a truckful of fertilizer not too long ago.

We also organize presentations and workshops on how to make one's own organic fertilizer. We're not worried about losing customers. There will always be someone in need of our organic product. In this way, we help bring about important and necessary changes in the culture.

I knew that someday you would be gone, grandpa Mincho. We are already changing and I am sure I will dedicate my life to fighting for these ideas, these technologies, this land.

This is how you taught us, this is how we Maya apply this knowledge in our lives, and this is how future generations should apply it to their lives, as well.

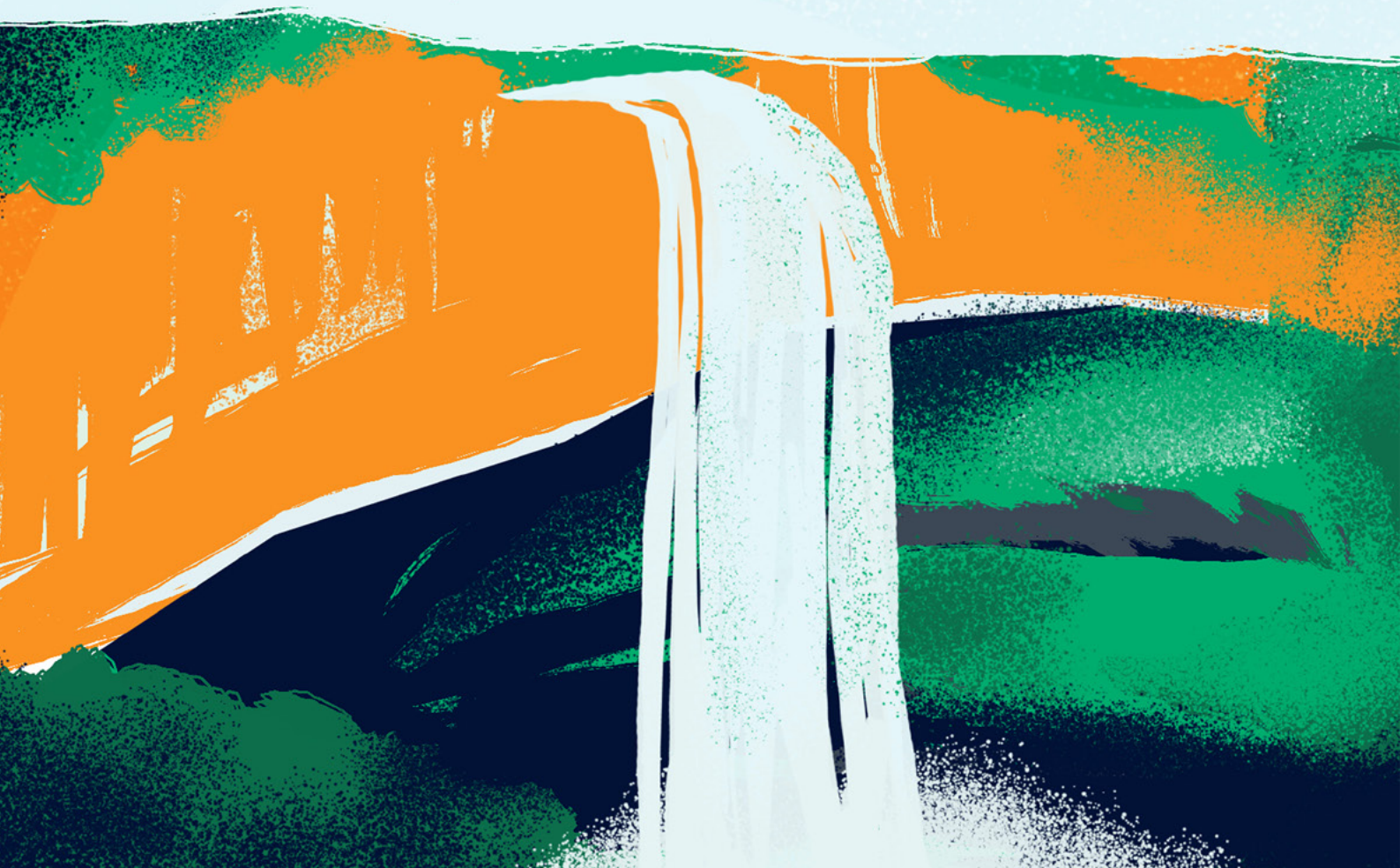
**I will continue  
telling you about our  
accomplishments.  
In each one of those  
small bags, there is a  
bit of your contribution  
to the societal and  
agricultural change  
that we fervently  
wished for together.**



**BRAZIL:**

**Gralha Azul**

# **RESPONSIBLE AND PURPOSEFUL TOURISM**



Niek and Femke are a couple from Holland. Some time ago, they had heard about a region in the south of Brazil that had some kind of connection with Holland, so they decided to check it out. After browsing the web, they read about a project that caught their attention, Galha Azul. They were impressed by the available offers and their descriptions, but they were even more impressed by its direct connection with indigenous communities in the area of Turvo, in the state of Paraná.

“Welcome to Turvo, land of the Brazilian pine trees, *pinheiros*. The municipality has 13.000 inhabitants, most of them living in rural areas which host the largest reserve of native araucaria trees in Brazil,” said Camila, the tour guide.

Just a few days earlier, the couple had flown from Amsterdam, Netherlands to Curitiba, Brazil—Paraná’s state capital—where they spent the night. They left for Turvo early in the morning, which is a four-hour drive away.

The Dutch couple was interested in cultural diversity. Prior to their arrival, they contacted Galha Azul through WhatsApp and inquired about their available packages. They are not very fond of extreme sports, but they were interested in the possibility of rappelling, diving, and what Galha Azul refers to as ethnotourism.

“Besides, they say that there is some Dutch influence in the area,” Femke added.

Camila Maciel is a journalist and tour guide. She explained that Turvo indeed has a rich culture influenced by different groups: Indigenous people, Afro-descendants known as *Quilombolas*, *Tropeiros*—as Brazilian cowboys are called—and European immigrants, including Dutch people, though that was well over a century ago.

Not only does Camila greet tourists in this way, but she does so in the historic center where there are ancient artefacts, photography and audio-visual exhibits detailing the local culture, all in the service of chronicling the region’s history. Later, they have lunch at one of the communities where they will spend the afternoon.

*Carretero* rice is a typical dish in the area. It was created as a way for *tropeiros* to have a full, travel-sized meal. It is prepared differently depending on the region. Lunch is spent with the host family, sitting at the table like any other day in the Turvo countryside.

Because of the warm and generous hospitality they received, Niek and Femke felt at home despite being so far away from Amsterdam.

“Would you care for some coffee?” their host asked. She prepared tropeiro-style coffee.

The beverage is made without a filter, adding the coffee straight to hot water. The thermal shock separates the dreg from the liquid, which is then served. The result is strong coffee that field workers used to drink to make it through their workday.

Camila continues the tour. They pass through a protected area, full of local flora and fauna. These are spaces that preserve the region’s biological and cultural diversity. It was a calm day, but this was only the beginning of their trip.

Galha Azul supports the idea of a circular economy, where everyone can earn their keep. The local families don’t need to abandon their jobs, nor do they need to host tourists all the time. The tours are meant to supplement their income and lighten their financial burden. Before Galha Azul, there was no tourism in the area. There were some activities in Curitiba and in other areas, but not in Turvo.

Now tourists come from within Turvo itself, the surrounding regions, and the entire state of Paraná. Tourists from other countries—like Niek and Femke—also visit Turvo, particularly from the Netherlands and Belgium

After the pandemic is over, Camila wants to expand the scope of Gralha Azul to attract even more tourists.

The initiative started in 2018 when Mauricio Pilati and some friends—Camila being one of them—met while in college. He was a marketing major and Camila studied journalism, but their interests aligned because Mauricio planned to write about local tourism for his final term paper. Together, they explored the topic. Mauricio is passionate about extreme sports, which is why so many of Gralha Azul's packages include various entertainment options along those lines.

After college, they began to conceptualize the project. Not only in terms of graphics, logos, and concepts, but also the necessary outreach to communities and families. This is the Gralha Azul network's main asset: relationships with local groups that agree to host the scheduled activities of this peculiar tourism and adventure agency.

Nike and Femke's payment for their scheduled activities is split up as follows: 20% for participating families, 40% for the tour guides in charge of the visit—always local community members—and 40% for maintenance, safety gear, miscellaneous expenses, and Gralha Azul itself.

Likewise, payments for services rendered by the families—such as food and lodgings—are split as follows: 80% for the family providing services and 20% for operating costs.



GUARANÍ HOME  
OPENING ITS DOORS TO  
GRALHA AZUL TOURISTS

Aside from the amounts earned from these activities, other kinds of revenue exist: handicrafts and other local products, as well as any money spent on local businesses. All of this amounts to five times the total invested by tourists in their trip, 100% of which goes to the communities.

Continuing with the Dutch couple's tour, they got up early the following day and drove nearly 40 minutes to arrive at a *Guaraní* Indigenous community.

Once there, they are in awe. Tourists often remark upon the interactions with indigenous communities and the local gastronomy.

For Niek and Femke, the magic began as soon as their indigenous hosts told them about their customs and performed their songs and dances. It is a way to generate empathy through diversity and to understand that people and communities benefit from said diversity.

"We were able to see 10,000 year-old artifacts!" celebrated Niek, who has a particular interest in archaeology.

From that point on, it was one discovery after another. Don José shared historic accounts and personal knowledge. He is also a skilled artisan and woodworker, his skill evidenced by the artful pieces on display in his home. For lunch, they were served *Manjar de Peixe* with homemade delicacies, all prepared by the Ruths family. Tourists will not only learn about the past; Indigenous families also live in the present, as they learned in *Koe Ju Porã* village, which means "pretty golden sunrise" in *Guaraní Mbyá* language. The tour continues along the Camino Taquara (*Tape Takua*) through trails and routes used by natives, where they could see disarmed hunting traps and medicinal plants. Their walk takes them to *Opy'i* (spiritual home), where they observe a song and dance demonstration, followed by a match of *Xondaro* (warrior). These are demonstrations of rituals that form a part of the daily lives of the community in the present day, on display for tourists at the spiritual home. After these demonstrations comes one of the high points of the day, according to tourists: bow and blowpipe shooting.

The visitors—eight others besides Niek and Femke—were able to take some souvenirs home: *Guaraní* handicrafts, an art form passed down through generations that reveals one of the most remarkable and enduring aspects of the local indigenous culture.

Once they finished their walk, the itinerary indicated a visit to Salto São Francisco, located on the triple border between Turvo, Prudentópolis, and Guarapuava, near the Marrecas Indigenous Reserve. The 196-meter drop provides an impressive view of the highest waterfall in the south of Brazil.

Local visitors from neighbouring areas also marvel at the chance to learn more about their local surroundings. For example, Caren Kelli posted a comment on social media showing how delighted she was by the experience: “Learning more about our region and the hidden beauty in private properties was a sensational experience! Everything was perfect and adventure is guaranteed!” Many residents of the state of Paraná are unfamiliar with some of the cultures and traditions that exist so close to them.

Gralha Azul makes sure that all itineraries respect the environment and the communities. Mauricio knows that there will always be some kind of intrusion, but the best thing to do is ensure that there is respect for the local people, so the experience can be a source of income for them without disrupting their culture or surroundings. Tourism without structuring and planning, without awareness of local cycles, times, or lifestyles, will always cause more harm than good. However, the kind of tourism practiced by Gralha Azul is committed to the maintenance and improvement of local surroundings.

The Dutch couple recognized aspects of their own traditions in the home of a family that was, appropriately enough, of Dutch descent. They spoke in their native tongue and seeing how traditional foods were adapted for local palates was a unique experience: pea soup, gingerbread cookies, and natural yogurt transported them back home in the middle of their trip.

**The  
communities  
themselves  
choose to open  
their doors and  
mingle with  
visitors.**

Before the sun goes down, the group is dropped to a centuries-old colonial-style house, where they would spend the night. Niek and Femke are delighted. They have experienced a side of Brazil that has nothing to do with sandy beaches in Rio de Janeiro, as movies often make it seem.

Through their contact with Gralha Azul, they were able to see a relatively unknown side of the great South American country. They visited a small location with much to offer tourists, especially when they know that the money they spent goes directly to the families keeping their cultures, diversity, and environment alive.

The pandemic affected Gralha Azul greatly, but they refused to sit around doing nothing. They spent five months with no tourist activity—local or international—but they researched ways to offer small tours.

When the pandemic is over, they hope to be able to connect with clients again and open new horizons. They plan to contact international agencies and offer a variety of packages.

Because of this initiative, Gralha Azul received the International Fund for Agricultural Development’s (IFAD) Rural Youth Innovation Award in the income generation category. This project sought to invigorate the local economy by promoting and conserving biological, historic, and cultural diversity within the area.

Niek and Femke spent three days visiting different communities. Gralha Azul has 20 activities to offer visitors. If a visitor wanted to participate in all of them, they would need five days.

GRALHA AZUL TEAM  
WITH A GROUP  
OF TOURISTS



The Dutch couple has already returned to their country. Camila and Mauricio know that their strongest advertising tool is word of mouth, tourists that tell their friends and family how their experience went. They hope that Niek and Femke show their pictures, share their experiences and, in this way, attract more Dutch tourists. But only once the pandemic is over.

Likewise, the host families continue to work on their gardens, their family projects, hoping that tourism is restored to a manageable level under the guidance of Galha Azul, whose name represents a seal of approval for host communities, tourists, and everyone involved with the itineraries.

**Gralha Azul, Brazil**

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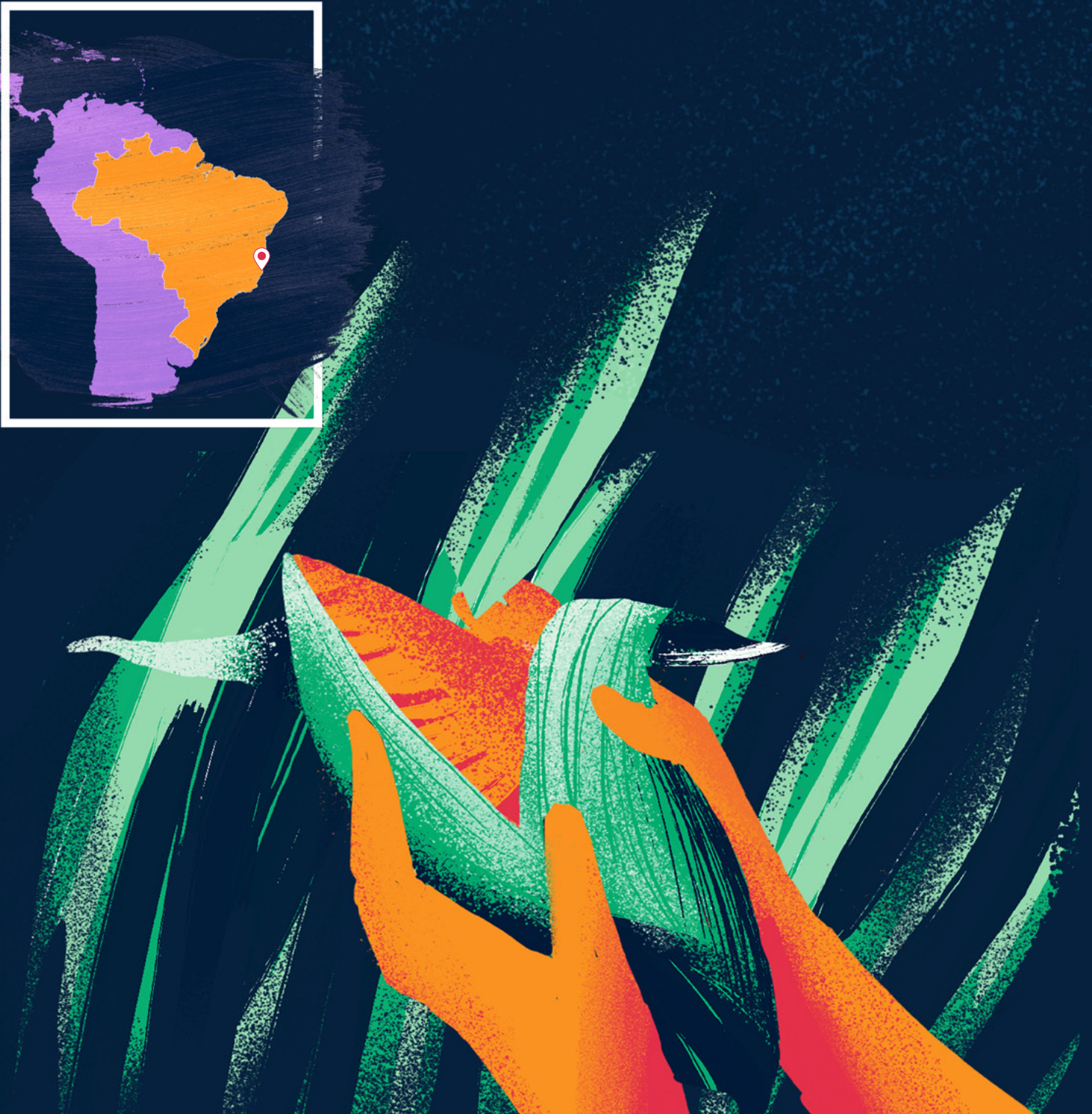
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BRAZIL:

**Raiz**

# TECHNOLOGY IN THE COUNTRYSIDE, FARMERS IN THE CENTER





As I delivered baskets full of organic products to some customers—like I did every week in Vitória city, in the state of Espírito Santo, Brazil—I thought of the families who grew the food that I now deliver door to door. Those of us living in the city don't often consider life in the countryside; we don't relate to the families that grow our food. I started thinking that we needed to make a change.

My father worked in agriculture, which gave me some connection to the countryside. I decided to study forestry engineering, and specialized in the relationship between climate and the production and productivity of different crops. Later, I finished my graduate degree in strategic and sustainable business management. I had spent many years far from the rural environment that had always called to me, though I always maintained a connection in some way or another, such as by delivering organic fruits, vegetables, and legumes. It was time to move forward. I wanted to go further, but where to? Would I be willing to change what was already working just fine?

I myself used to have terrible eating habits, like so many people do, but after my wife's health took a turn for the worse, we changed our diet and embraced organic foods. A tumor—thankfully benign—gave us a scare and we decided to make the change. Now I want as many people as possible to be able to make that change, and for farmers to be able to live off their organic crops.

I was convinced that my wife's illness had been caused by the food we used to put on our table. Because of this, I wanted to find a way to collaborate with organic farming in my area. Maybe even other regions, why not? My course was becoming clearer.

We knew for a fact that we needed a change. Delivering organic food baskets was not enough anymore; I wanted to be closer to the countryside, return to my family traditions, my studies, and my passion.

I knew that we needed a combined approach focusing on health, technology, and the countryside, none of which would be possible without bringing people together. I wanted to move my business closer to the countryside, so I made several calls to farmers to ask them what I could do to help.

"Hi, this is Eduardo Rosa. I would like to help out on your farm."

They welcomed me with open arms, since many of the farming families already knew me from my weekly basket deliveries. I carried only a few items in my backpack. I knew I would leave with more than what I brought. I also knew that my mission was to live with those families and experience their day-to-day life.

Prior to this, I had joined a start-up accelerator program with the goal of transforming the organic food basket delivery business into something that would focus more on technology and the countryside. The program endorses the initial concept so they can later boost the business' development. I thought it could be a good resource, and it was. We managed to develop and shape the project into a new enterprise. We were getting closer to the change we wished for.

We would provide services to the city and the countryside, from the countryside perspective. It wouldn't simply be a matter of the city purchasing goods from the fields, technology would be involved. Though my idea was still in the planning stages, it seemed to have potential. However, I would have to gather more information about the farmers themselves, which is why I decided to live with many of them for five or six months.

FOUNDER OF RAIZ WITH AN  
ORGANIC FARMER IN THE  
STATE OF ESPÍRITO SANTO



Small organic farms are usually family businesses. To get to know them, one needs to spend time with them, eat with them, work with them and experience their day-to-day life. Farming families are often the ones working the fields, but when you arrive at a small farmer's home, their family welcomes you as well.

It wasn't just a matter of arriving at their farm, asking question and leaving, no. I stayed with them, earned their trust, and worked with them. I sat at their dinner tables, woke up early and went off to work. I wanted to know the exact way they carried out their tasks. Not just in the fields, but in the planning stages; crop yield predictions; seed handling; crop rotation; seasonal harvests; what to plant—or not—and the reasons for it; how they react to unexpected events; what are their main problem areas, life goals, dreams, and nightmares. I wanted to live with them.

I also asked them about their access to the internet, computers, cell phones, their frequency of use, who—if anyone—handles technology, and what they know or don't know about it. All of this came up organically during conversations, I wasn't simply asking them like you would in a survey. I worked much like any other family member for one, two, three days, and eventually, while having some tea or coffee, they would provide me with the information. In any case, it wasn't so much an exchange as it was an earnest attempt to experience and understand their way of life. I visited ten farmers in total.

They were surprised. They told me that almost no one had the will to work with them. Fieldwork can be hard, rough, but it also has its own rewards.

I thought that, in this way, I could slowly break down the barriers, close the distance between the countryside and the city. That is what my app would do, bring the countryside to the city, but always focusing on the countryside first.

My previous work, delivering fruit and vegetable baskets, was more like a service to the city. We were using the countryside to provide for the city. I wanted a countryside perspective for the new app's technology, with farmers at the heart of the operation. We were making progress. We already knew it would be a technology-based solution based out of the countryside and would also include the city.

I really like having direct contact with small farmers. The solution we were building started integrating various ideas along the way: direct contact with farmers, doing something to promote healthier diets, and encouraging the growth of organic farming in the region.

This is how we shaped "Raiz", which means "root" in Portuguese. It was originally called "Raiz Capixaba" since "capixaba" is the demonym used for those born in Espírito Santo. It also means "field" or "field ready for planting" in the indigenous *Tupi* language.

Our experience with the start-up accelerator also provided us with a methodology that helped us outline the path to achieve our dreams.

Many companies are made in the city, for the city. Because they are created by city folks, they target urban audiences. They only call farmers to tell them what needs to be done. However, no one asks farmers what their needs are and what is more convenient for them. The project's new direction could help create a solution to all the issues I learned about in those six months.

The whole team participated in shaping the software application. We thought of boosting both the farmer and the city business who would buy the product; making sure that restaurants and supermarkets in the city could do their jobs—selling food—well; ensuring that farmers in their fields could focus on their crops, lighten their burdens. Before creating a technology, relationships needed to be established. We built it over time, not just with those initial visits, but also with ongoing follow-up.

The idea was coming along and we already knew that it would be an app based out of the countryside. It would build ties with the city and encourage organic agriculture in a way that would economically benefit all parties: farmers, buyers, and Raiz.

**After experiencing life in the countryside, gathering information and receiving the support of farmers willing to participate in the project, we had to keep moving forward.**

As the idea matured, we realized that not everything could be handled through the app. That is why our ten collaborators divide the work amongst themselves. Most dedicate themselves to maintaining communications with the farmers and some handle communications with city businesses. We also have programmers and economists, of course.

The basic idea was for farmers to confirm the availability of their products and the app would connect those products to existing demands by city businesses. These businesses outline their purchase orders and farmers receive them through WhatsApp. Once an order has been accepted, farmers harvest the requested crops and take them to a distribution center.

But that's not all. We realized it would be necessary to provide complementary services to the technology, which represent an added value for farmers and businesses. Said follow-up would be personalized, partly using artificial intelligence and partly through human intervention. After several trial runs, the app would be ready.

The human element of the app is very important. Some team members are responsible for accompanying the farmers selling their produce, while others do the same for city businesses. We need to make sure that they are satisfied, that everything goes as planned, barring unexpected events that change everything. Achieving that level of connection is vital to making the app work.

For example, if there are no tomatoes in a given week, we need to know in advance so we can inform buyers. Using a restaurant as an example, could there be a way to have them adjust their menu so they can purchase more sweet potatoes, instead? This is the type of work we do at Raiz.

Only by doing all of this can we successfully manage everything. Partly through human relations and partly through the app's work. The app automates recurring, repetitive tasks that don't require human intervention, which frees up the human element to handle more pressing matters.

Payments are also made through the app. A small commission is added to the payment, meaning that Raiz keeps a percentage of the buyer's payment, while the rest goes to the farmers.

We have a pricing reference table that was put together with input from farmers. These prices needed to be fair for all parts involved. Our main concern was preventing businesses from abusing their negotiating power and setting their own prices.

Finally, in 2020, the app reached its final form and was ready to go. During the pandemic, the app boomed and we reached over 250 registered farmers and some 30 customer businesses. Also in 2020, we invoiced nearly \$120,000. Transactions happen daily: orders are placed on a given day, and the produce is moved to a distribution center on the following day. There is no stock management but harvests are planned in advance.

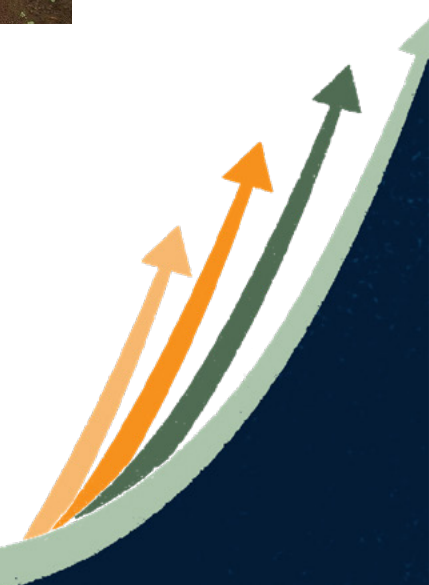
We were extremely happy to receive the International Fund for Agricultural Development's (IFAD) Rural Youth Innovation Award in recognition of our contribution in communications and technology, as applied to rural development.

We joined a program that offers support and investment capital to further develop the app. We have advanced to a new stage and consolidated our business. We are currently thinking of expanding outside of Espírito Santo, towards Rio de Janeiro, São Paulo and Minas Gerais. It was a group effort, every one of Raiz's team members attended guidance and mentoring sessions, and developed methodologies that boosted and helped us succeed. All of that is combined with the collective work of the farming families. The app is theirs, as well.

It is my belief that our initiative's most important asset is the trusting relationship we have with farmers. Before developing and applying any new technology, relationships need to be established first. There are many ways to accomplish this, such as establishing credibility first. Later, with input from the farmers themselves, you develop the technology in such a way that they can participate in and make use of the technology itself. By doing this, you can create a technology that focuses on the countryside with farmers at the heart of it.



ORGANIC FARMER  
HARVESTING CARROTS



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# THROUGH THE WINDOW OF OPPORTUNITY



It was cold in Bogotá at midday. It was cloudy, one of those moody days where rain was just on the verge of falling. The bus that Sergio Diaz was riding was the same one he used to take every day for the last couple of months. However, on that day, July 17th, it wasn't as crowded. He doesn't take the bus every day anymore, and dressed casually on this occasion. He could still remember his early morning trip, dressed in a suit and tie. He would not make the same trip again, at least not in the same outfit.

It was a daily trip. Tedious and always packed, which is why he had to ride in the back. Still, it was enough to have a job to go to every day.

He hadn't used the Transmilenio bus in two months because he had been laid off at work. Fired. It wasn't exactly Sergio's dream job, but he was satisfied. He earned a decent wage, worked in his field of study and was even allowed to organize social corporate responsibility projects for his employer, voluntarily, of course.

Sergio was 33 years old then and during those trips which he no longer makes, he sometimes thought about the importance of being employed. He occasionally thought back to when he was 15 years old and lived through a harrowing housing crisis that affected Colombia in the late 1990s. This event left a lasting impression on him because his family was forced to give up their home and Sergio had to live with his mother and grandparents. He was unable to continue studying after high school because they could not afford college.

However, there was no housing crisis on that July day. He had learned from that experience and even though he had just become unemployed after ten years of working in the financial sector, he had enough savings to survive for a few months while he looked for alternatives.

And so, Sergio went on this bus trip from his house in the Cedritos neighborhood to downtown Bogotá. But why was he taking this trip? Even though he had been fired just a few days ago, he had been called back to continue offering the workshop that he had voluntarily organized while he was still an employee.

"They just fired me and now they want me to offer my course for free without even paying my bus fare," he thought or said out loud. He wasn't sure anymore.

He thought he was being too nice, letting others take advantage of him. But he quickly thought of the bank's cleaning staff, those who mainly attend his workshop and would benefit the most from learning how to manage their finances responsibly.

"I'll do it. Just this once," he promised himself.

He continued his ride feeling nostalgic, or maybe resentful, like one does after ending a relationship, *una tusa*, as they say in Colombia. He thought about what it would be like walking into the bank again—where not too long ago he could walk in with an ID badge—and seeing his former coworkers. He would have to queue up to enter. "Will it be humiliating?" he asked himself. Even so, he continued on his way.

He wasn't thinking about how he got to this point: after the great crisis of 1998 prevented him from attending college, he kept trying. He tried, unsuccessfully, to become a football player. He eventually applied for a loan and managed to study economics and finance. With this knowledge, he thought, he wouldn't have to relive the unpleasantness he went through at age fifteen.

He worked tirelessly to pay off his debts in record time—while others take ten years to pay off a loan, it took him only three. He eventually found work with Bancolombia, a prestigious institution, and kept that job for five years. However, technology advances rapidly and just when he felt his life stabilizing, his boss called him in to share the worst news possible.

He had already volunteered his time and efforts to structure a financial education course for Fundación de Bancolombia. Some of these courses were aimed at the cleaning staff, for example.

That July day, while riding the bus, he resigned himself to providing a free service, despite being unemployed. He did not know that they would call him back a month later and he would, of course, make the trip once more. “It’s like an old lover that won’t let go,” he thought, still feeling down.

The workshops were very successful. So much so that the Fundación pushed him to draft a proposal in response to a call for the implementation of a series of social responsibility programs sponsored by the Fundación itself.

“But I’m going up against huge, transnational companies, and I don’t even have my own business. I don’t think I can win,” he told his contact in the Fundación.

“Come on, you have nothing to lose. Try it at least,” the woman replied.

And so, Sergio submitted his proposal, expecting the worst.

A few days later, he received another call from the Fundación. He thought they would ask him for a third workshop, free of charge, but instead he heard the following:

“You made it. We want you to implement our financial education program.”

Sergio couldn’t believe his ears. How did this happen? He would later find out that his willingness to offer his workshops for free, workshops that he himself had organized as a bank employee, had caught the attention of Bancolombia’s president, Juan Carlos Mora, who personally declared him the winner of the contest.



SERGIO, LIBERTAT'S  
FOUNDER, GIVING A CLASS  
ON FINANCIAL EDUCATION



His contact in the Fundacion told him the whole story. The choice came down to two well-established companies with a national and international presence, and Sergio.

“Who is this man?” asked Juan Carlos, the president.

“Some kid who used to work for us, who kept coming back to work for free even after we fired him.”

“Hire him back and sponsor him so he can start his own financial education company,” instructed Mora.

Back on the bus—a different day, but still on the Transmilenio bus—Sergio returned to the bank. His feeling of dejection would disappear today, though he didn’t know that yet. Juan Carlos Mora himself invited him to give a presentation in front of five thousand bank employees. Some of his former colleagues would be there. Sergio would serve as an example of overcoming adversity and the bank’s president himself would tell the story of Sergio’s rise from the ashes with a business of his own, and how he came to be in charge of implementing several financial education programs on behalf of the Fundación by way of his new business, Libertat.

Sergio was now working with three of his colleagues. He no longer rode the Transmilenio bus from Cedritos to downtown Bogotá, but he continued pursuing his passion.

In 2019, Libertat helped 600 small farmers in Colombia’s rural zones. 600 individuals who learned how to manage their finances in a pleasant, fun, and informative way. This would help them avoid financial ruin, even when going through hardships.

During one of his activities, a state employee shared an anecdote with Sergio.

“After ten years of working and saving, I was able to buy a house. A bit run down, but I bought it,” Ana explained, “then we applied for a loan and built four apartments that we could rent out.”

“Great! Did you leave your job, then?” Sergio the financial education specialist asked.

“No! Why would I do that? I kept on working and saved even more. Now I can buy my own house, continue receiving my salary, bonuses, and money from the rental units.”

Ana, who didn’t even go to high school, taught Sergio a lesson about real life and financial responsibility. That is why he named his company “Libertat”, a slight change in the spelling of the word “libertad”, which in Spanish means “freedom.” According to Sergio, financial stability brings freedom. The “t” in “Libertat” represents the idea of “todos”, which in Spanish means “all.”

**“Freedom for all”, no matter their level of education, income, or technology. Everyone can achieve personal financial stability and have the freedom to live with dignity. Libertat.**

YOUTH GROUP AFTER A  
FINANCIAL EDUCATION  
PROGRAM ORGANIZED  
BY LIBERTAT



March 2020 arrived. As Sergio looked out the window, he recognized the streets he once traversed on the Transmilenio bus, but he looked at them with optimism. He no longer had to work for free. Everything was going wonderfully. They continued to implement the Fundación's program—where he no longer worked as of 2018—and they had other clients. They tried to avoid relying on a single source of income.

However, that's how crises work, Sergio would later think. 2020 was going to be a dream year, full of plans, but the pandemic brought about the cancellation of all his contracts and all planned activities. Sergio and his three colleagues looked at each other in disbelief. They were once again unemployed.

As the founder of Libertat, Sergio decided to cut his pay by fifty percent. Already wearing masks, and with the pandemic spreading all over the world, he gathered his team and told them:

“We have sufficient funds for three more months. If we make some sacrifices, we might be able to operate for five months and increase our chances of staying in business.” The air was growing thin, quarantine was imminent. The world would never be the same.

Two of his partners—the ones who could afford to do so—agreed to take a pay cut, and the team as a whole thought of ways to keep operating.

They proposed a migration to digital services. Even though rural Colombia had limited access to technology, they likely had access to WhatsApp, they thought. They proposed a new program, but the Fundación responded negatively. They didn't give up, however, and looked for other allies. Finally, they managed to secure a contact within Corporación Reconciliación Colombia, who accepted their proposal. They would work with ex-guerrillas and ex-paramilitary to put together a financial education program. They celebrated the fact that they could resume operations. The program was successful. They educated tens of people, agreed to use the Organisation for Economic Co-operation and Development's (OECD) guidelines, and improved their financial yield, performing successful international comparisons. Libertat had transformed itself.

With this new success under their belts, they knocked on Fundación Bancolombia's doors once more. This time, the Fundación accepted their proposal. They moved their workshops to WhatsApp, podcasts, and stories. Finance can

be a boring topic, but Libertat's methodology aims to make it interesting through practical examples, storytelling, gamification; anything that can bring a little warmth to what is typically a cold and complicated subject matter, but one that affects people's daily lives all the same.

From August to December 2020, Libertat reached its goal of six hundred families served by their programs. They outperformed the already good year of 2019 with a 35% reduction in operating costs.

Sergio is grateful for the crises he had to live through. They are inevitable. Opportunity comes from knowing what to do before the crisis hits. He is even grateful for the 1998 crisis, since it turned out to be the foundation for the creation of Libertat.

"One suffers greatly when going through a crisis, but in the long run, one comes to understand why things happened the way they did." Sergio likes to say during his workshops, often using his own life story as an example.

The process that Libertat teaches people consists of four stages. The first is to achieve liquidity through reduced or conscientious spending; the second is purposeful savings; the third is to consider investing in profitable ventures; and the fourth is emphasizing the importance of reinvesting. They teach this through games, stories, plain language, different learning methods, tangible objectives, and adaptation to different audiences.

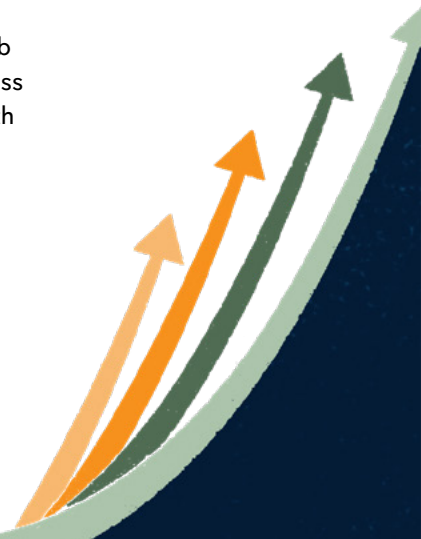
Libertat was recognized as an impactful entrepreneurship during Fundación Bancolombia's 50th Anniversary Ceremony; Grupo Energía Bogotá declared the business a "citizen with good energy"; and they were chosen by CAF - Development Bank of Latin America to receive funding from Seedstars and offer their financial education programs all over the continent. In 2020, Libertat received the International Fund for Agricultural Development's (IFAD) Rural Youth Innovation Award for its educational methodology based on accessible language, real-life stories from rural areas, and games.

Without the COVID-19 crisis in 2020, they wouldn't have reinvented their business or achieved the levels of success that they did.

"You have two options: you can see the crisis as a glass half full or a glass half empty. While some people cry, others sell handkerchiefs to dry their tears."

That's what Sergio thinks as he gazes through the window. That route looks familiar. He smiles.

He's almost there. Nowadays he meets with Banco officials as an entrepreneur and implementer of his own programs. The uncomfortable feeling of having lost that job turned into the joy of having his own business and having been able to help thousands with their finances.



**Libertat, Colombia**

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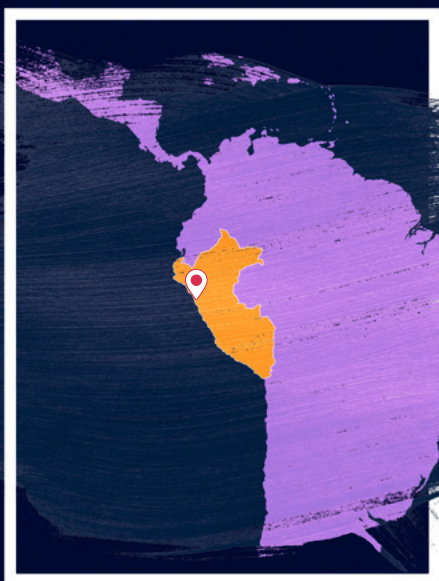
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PERU:

**Agrowayu**

# A GHOST AS DRIVING FORCE



“Everyone is making jams or yogurts!”

“Yes, with this mousse, we can’t be beat! It’s delicious and healthy.”

At least, that’s what we thought, as we got ready for the innovation fair in 2015, at the end of the second semester of our first year in college. There were four of us—agro-industrial engineering students—and we wanted to surprise everyone with a novel product for the University’s science fair. Novel and delicious! Everyone else was working on very conventional products. Mousse was a product that hadn’t been studied in-depth. “It can obviously be called innovation. It’ll win us the competition, no doubt about it,” we thought.

We had studied its components, behavior, flavor, and consistency. We wanted to innovate and make an impression. Let every child order the berry mousse; this will improve their diet and, if we’re lucky, we could even help fight malnutrition.

We mixed ingredients proportionally so we could get the right consistency and taste. We tasted it ourselves and we liked it. We got the right containers to make it look pretty and appetizing.

Prior research indicated that it would be a great product.

“Here, let me sign that for you: Gian Silvera. There you go.”

“I agree,” said Maickol.

Ana served as the witness. Really, all three of us entered the competition to win. We’re like that, competitive and eager to make a difference.

The day of the fair had arrived. The judges stopped by the different exhibits, performing their evaluations. They walked by our stand and we proudly explained the process and showed them our results.

Their first look was one of disapproval.

“What about this color?” they questioned.

“Well... berries. Who doesn’t like berries?” I answered.

“But it is brown. Who likes eating brown paste?”

Their criticism was harsh. “The product is not visually appealing, and if you intend to improve diets, it lacks the necessary amount of proteins and amino acids to truly have such an effect on consumers.” They added, “When this food is heated to a certain temperature, it loses its nutrients.”

We put away our things and didn’t even eat our samples. We were devastated but not demoralized. The first thing that Ana said was, “We need to restore our pride.”

That same day, we promised ourselves to win next year’s fair. It was all about winning. Yes, we are very competitive, but there was something else. Ever since then, we wanted to effect social changes and help with the fight against child malnutrition in Peru and Latin America. We were students, but we had a clear vision of the future we wanted to achieve.

Vacations came and went, and soon we were back at the University. It wasn’t long before we started working on our new project for the science fair.

AGROWAYU AND THEIR  
PRODUCT GELACHÍA DURING  
A UNIVERSITY FAIR



This time around, we avoided starting with preconceived ideas. Berries were all the rage last year and we let it influence our decisions. For this attempt, we would have to come up with something truly novel. Will we be able to create something worthy of the top prize? There were others who did not win last year and would certainly learn from their first attempts, looking to improve. Why should we be the winners?

We didn't know it then, but we were about to make history. The product that resulted from our work to win that second year's fair would take us around the world, help us win contests, and develop our own source of income. We would speak, eat, breathe and sleep with this product. I would even focus my thesis project on this product, to learn more about it, its properties and benefits, as well as its composition and fabrication.

The future will take us to international spaces. We wanted to look for funding opportunities and become entrepreneurs. For example, we will turn our 2018 thesis into a scientific article that will be submitted to various publications. The product will be recognized in 2019 as one of the top ten nutritional products in Peru.

That same year, the product will take us to Mexico City, to the youth meeting organized by the Pacific Alliance, which includes entrepreneurs from Chile, Peru, Colombia, and Mexico. We will bring our proposal to this meeting, which is sponsored by Nestlé. Their Latin American executives will be there and witness our product. We won't believe it, but we would get to touch the sky, or come close to it. The meeting would provide us with mentorships, contacts, and people interested in the product. We will talk about our research, our process, and our intentions. High-ranking corporate employees will train us in a variety of topics and review our work. This will bring us great joy and learning opportunities.

All of this is in the future, of course, because we would first have to make the product.

Once the new semester started, we wanted to dive headfirst into developing our new idea. No yogurts. No mousse, either. Anyone can make jam. Beverages are overdone. What can we make? Our self-imposed challenge was to create a product that has yet to be researched, not just in an academic context, but by businesses in general as part of their market research.

"What is something that we've all eaten as children?"

After thinking for a bit, the magic word popped up: gelatin!

Gelatin is beloved by children, is well known by all, and even adults enjoy it. It's practically mandatory in hospitals due to how easy to eat it is. Of course, it must be nutritious and delicious. Above all, it has to be appetizing, to die for. We thought about all these things and started working right away. This product helped us see the light.

We had to study formulas, mixtures, ingredients, additives, protein, vitamin, and amino acid levels, as well as preservation techniques. The essential component in gelatin is the gelling agent, which is the food additive that gives gelatin its consistency. We investigated and studied which agents could be natural and which could be artificial.

We remembered right away that it couldn't be brown. The color combination was crucial. We researched gelling agents. We found the agent we were looking for in chia seeds, a superfood that is common throughout Peru. It was a brilliant idea because it's colorless. In other words, it wouldn't produce any unpleasant surprises.

As far as flavors were concerned, we wanted something that was both traditional and innovative at the same time. Strawberry gelatin is the most common in all the world. We didn't want something obvious. Lemons, peaches, strawberries, all were too obvious. What fruit has the right level of acidity that can delight our palates—and help to preserve the gelatin—but is also traditionally found in Peru? We landed on passionfruit, a delicious tropical fruit commonly used for soft drinks and juices.

"Besides, its color is beautiful!" said Ana.

We had to remember the judges' critiques if we wanted to avoid repeating the same mistakes. What were we missing? The nutritional component. Quinoa was the logical choice. Peru is one of the main producers, exporters and consumers of quinoa. It's used in cereal bars, by athletes, and is considered a superfood across the world.

All of our work was backed by scientific research that we ourselves conducted. Tests, lab analyses, different combinations. Everything had to be done carefully as we didn't want to be disqualified again.

There were a couple things that still needed to be done, but we knew that we had enough time. We also knew that we would do well during the fair. What we didn't know, however, was that we will also compete in *Comprometidos 2019*, a competition for proposals related to the United Nations Sustainable Development Goals.

**We will learn that our work will revolve around goal number 2, zero hunger; number 3, good health and well-being; and number 12, responsible consumption and production.**

We will be one of 10 finalists in Latin America, traveling to Buenos Aires, Argentina with our research and our product. Once there, we will present our research, develop professional relationships and the Nestlé company will grant us a small amount of seed money to invest in the necessary equipment for our work. That same year, we will receive the *Latinoamérica Verde* seal, awarded in Guayaquil, Ecuador. Our project was considered one of the best socio-environmental projects in Latin America. There will be a lot of great news.

That's all in the future, however. First, we had to create our product and register for the University's innovation fair.

We continued our research. We concluded that our product would be made from a mix of chia seed, passion fruit, and quinoa. This combination produced a gelatin of a magnificent color and without artificial additives. We made and tested our prototypes. We were almost ready for the fair. There was fear, but there was confidence as well. We failed once but it was a necessary step for what was about to come. Would we finally win at the fair?

Yes, we will win the top prize in the following three fairs. Even though we haven't yet won this one, which we were currently preparing for. We will have many good ideas, like coming up with an agro-industrial waste treatment plan for passion fruit peel, from which pectin can be extracted and serves as a natural gelling agent. We will win at another fair by coming up with a machine that can guarantee the gelatin mixing process and package it. Later, we will create nutritious compotes that will be well received. We will continue to innovate. Still, the 2016 fair, where we will debut our gelatin, has yet to happen.

Yes, our product was ready. We were confident that it would be the winner and came up with the only logical name for chia gelatin: Gelachía.

We finally made it to the fair. There were many other innovative proposals: process automation, technology, canning and processing machinery, food products like jams made of pineapple, quinoa, or berries, but no one else had gelatin. The first item on the evaluation list: originality.

The judges came by, observed, listened, and tasted. We knew that our past errors had been corrected.

Gelatin is the most popular dessert in Peru. After all, what child hasn't had this dessert before? It had potential. Gelatin is a product made for immediate consumption, described as fifth-rate because after purchasing, you only need to take the lid off and eat it. That will be the trend in terms of consumer preference. Parents will buy it, give it to their child, and that's it. We will try to find different presentation methods. Plastic containers, glass containers, molds with different shapes. We will really want to popularize it in the future.

Our drive is to avoid letting the product fade away after the fair is over. That's what usually happens in innovation fairs, you see many good ideas that disappear after the fact, leaving only pictures behind with no one developing them further. We won't want to end up like that.

The judges were in session for the final decision. We took a deep breath. We received positive feedback from the judges, but we were still not sure about the results. We really wanted to win, not only to actually create the product, but to wash away the bitter taste of last year's berries.

We will achieve sales in the future, whether it's directly to consumers, small dessert and juice shops, or even catering services across Trujillo. We will work hard to make the product pay for itself, so that any expenses that we might incur: registrations, packaging, designs, and others can be subsidized from generated profits. We will walk a lot, knock on doors, and push ourselves to our limits.

The university will allow us to use their laboratory, and we will stay there for a while. But soon, we will want a location of our own and we will end up renting a small space.

The judges were still deliberating and we were already nervous. With every passing second, our confidence slowly crumbled, but we still had faith. This fair was the key to all that would come later. But still, we didn't have the results.

In the future, we will even start a business that will grant us a higher degree of formalization: Agrowayu. Through that business, we will realize that the solution lies not just in our products, but associated services, as well. We will deliver nutritional knowledge workshops, provide orientations for mothers, and give presentations. It will be like a sort of service and product marketing. 63% of the population is unfamiliar with what goes into their food. There is a severe lack of nutritional education.



Part of our motivation for starting this business will also be to show that not all healthy foods are ugly and not all tasty foods are bad for you. Our motto, “when deliciousness gives way to nutrition” will reflect this. “Agrowayu, deliciously nutritious,” will be our later motto.

Finally, the judges come out. We patiently waited for them to pronounce the result. On the one hand, we knew that if we didn't win, we would continue trying. On the other hand, if we got first place, we would be extremely happy.

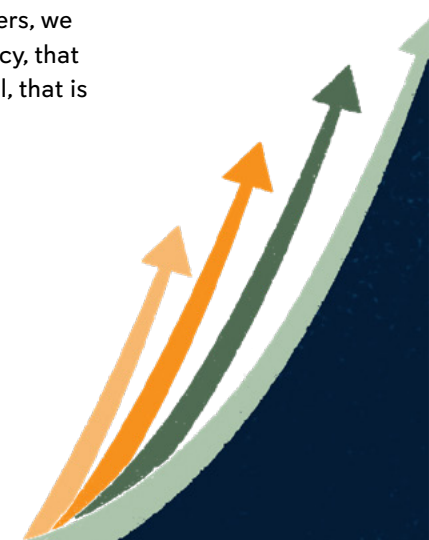
## “The winner of the 2016 edition is: Gelachía!”

We hugged each other and screamed for joy. We banished the ghost that had been haunting us, our past failure. Upon later reflection, it was more than a ghost, it was our driving force.

From then on, it was nothing but growth. All the accomplishments attained through Gelachía made us very proud. We also received the International Fund for Agricultural Development's (IFAD) Rural Youth Innovation Award in the vulnerable group inclusion category. The Award acknowledged the development of nutritious products that can replace unhealthy foods in the children's food market.

The pandemic will arrive in 2020 and bring our operation to a halt. Sales will stop and workshops will be cancelled since virtual tastings are not exactly feasible. Even so, we will resume production. In the future, we wish to submit our product to the State's healthy foods program. This program provides daily lunches to children in public schools, particularly in rural areas where there is a high rate of malnutrition. This would guarantee a large production of Gelachía, though we would first have to comply with a set of requirements, including a record of our sales history showing that the product is widely available in the market.

We trust that our product is going to transform Peruvian society. As agro-industrial engineers, we want to create a product that builds a legacy, that can support itself and endure, but above all, that is healthy for children.



**Agrowayu, Peru**

Facebook: @AgroWayu

Instagram: @AgroWayu

Twitter: @AgroWayu

Website: <https://agrowayu.wordpress.com/>

<https://silvergian250.wixsite.com/agrowayu/about>

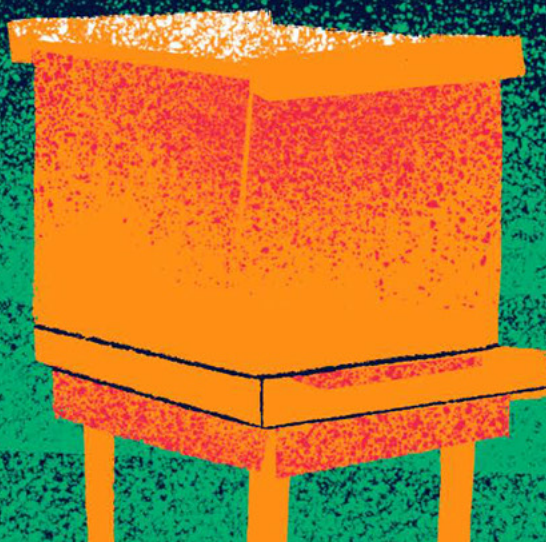
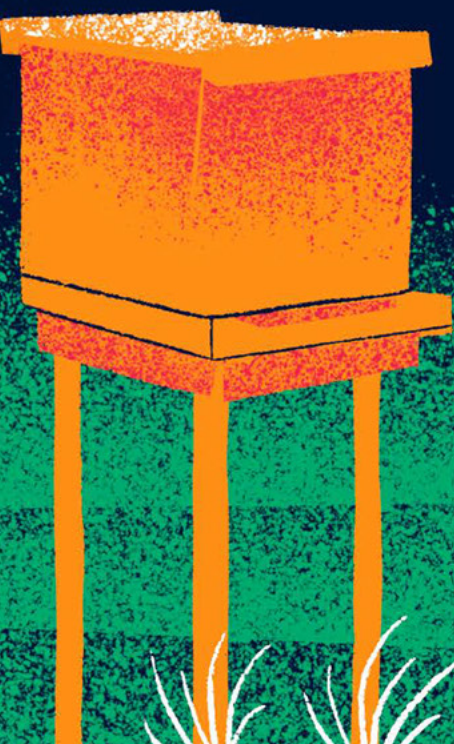
E-mail: [agrowayuperu@gmail.com](mailto:agrowayuperu@gmail.com)

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**BRAZIL:**

**Pé na terra**

# **UTOPIA MOVES US FORWARD**



João knows that there are chemical-free food options, but he can't find any likely alternatives in his city. Now, walking by Salzano de Cunha avenue in downtown Sananduva, in the state of Rio Grande do Sul, Brazil, he notices a sign that says, "Utopia." He was surprised because, until very recently, in this same corner, there was a fruit shop called Peão. In its place, there is a small restaurant that advertises artisanal gastronomy and healthy foods. This is a sign, João thought, because Utopia is a place that does not exist, according to Thomas More's work of the same name, published in 1516. Maybe this place that he could not find did exist, even though it was a utopia, he thought.

He goes in. He has enough time for a cup of coffee. Somehow, he shares his concern that agriculture should be handled naturally, without chemicals, with many people all over the world. Unfortunately, the agricultural export model, which requires several hectares of a single crop, encourages a dependency on chemical fertilizer technology to boost growth and kill weeds or bugs around the planting area.

João is not a farmer. He is simply worried about the possibility of himself and his family—and anyone who so wishes—being able to have healthier diets.

"A cup of coffee, please," he orders while observing the decor and the atmosphere in this cozy place.

"Could there be any options like the ones I'm looking for in this small town in the northern part of the state?" he wonders. "Could I have stepped into such a place?" Very often, gourmet restaurants that offer these healthy alternatives are outrageously expensive. He looks around while waiting for his coffee. He reads a sign that says, "organic street market *Pé na terra*" (foot on the ground, in English). Could this be...? He knew that an artisanal gastronomy restaurant called Utopia would be at the epicenter of the commercialization of agroecological products.

"Yes, sir. We try to create most of our dishes using organic crops that come from agroforestral crop systems, whenever possible."

"What about the street market, is it still ongoing?"

"Yes, sir. It starts tomorrow, at 2pm."

"I'll be back," he thought, "it's not that far for me anyway." He pays for the coffee.

The next day, shortly after 2pm, he enters the shop. It's already starting to feel familiar. The table arrangement was very different from the day before. There were more people as well.

"Welcome to *Pé na terra*, an organic street market that takes place every Thursday right here in Utopia."

"Hello, I hadn't seen you before."

"We've been coming here every Thursday for the last two years or so."

João is in heaven. "Utopia is the idea of an imaginary, fantastic, ideal civilization," he thought once more, "but now I have my feet on the ground in utopia." "*Pé na terra* in Utopia, every Thursday," the sign reads.

ORGANIC MARKET  
BY PÉ NA TERRA



I've always wanted to find something like this. He walks by the vegetable booth first. There is kale, lettuce, cauliflower, cabbage, arugula, monk's cress...

"Are they edible?"

They told him those were edible flowers, known in English as garden nasturtium, Indian cress or monk's cress.

"They are wonderful for decorating salads, and for eating, of course. All these vegetables are grown on a farm 15 kilometers from here. Emanuel over there is my partner, we work together on the farm. What matters is that we have embraced the agro-ecology philosophy and lifestyle."

"But isn't that the same as organic farming?"

"Sure it is, but it goes a little further than that. We make sure that all of our crops are free of agrochemicals and that our production is fully in harmony with people and the environment. In our case, it's a family business, VivaFlor."

Naiara Santestevan tells João that they grow the leafy vegetables, but there is another farm, Sitio Dossel, that also sends their produce to the market. Sitio Dossel is another family-run agroecology start-up that—together with Utopia—formed the Pé na terra initiative, which João was visiting today.

"We became partners because Utopia needed organic food suppliers and we shared the same concerns. We also have in common the fact that we are young families who want both dietary and social change. Are you familiar with the concept of food sovereignty?"

"Sure. I've been interested in the topic for some time, even though I only just noticed yesterday."

"We want to show people that agriculture can be profitable and self-sustaining with little to no technological dependency on foreign, expensive or exclusive products belonging to outside initiatives, as in the case of chemicals or seeds sold by transnational companies. We believe in local products."

"Fascinating," João thought. How had he not found this place before? He takes four heads of lettuce, since he can't eat more than that in a week, despite being a vegetarian. He also purchases some arugula and kale.

"Tonight I'll have a wonderful fresh green salad!"

Naiara turns around and talks to Emanuel, who is holding Rodrigo in his arms.

“This is what I like about the market. You see, Emanuel? We had someone new today. Slowly, but surely, we are growing as a movement for healthy eating and farming habits.”

For VivaFlor, what is innovative about Pé na terra is that it is not only a place to buy legumes, fruits, and vegetables, but it is also a place for disseminating their ideas. Not only that, but the coordination between farmers, restaurants, and consumers prevents food waste. The products brought by people like Josué, of Sitio Dossel, are used by the restaurant for its weekly specials if they go unsold at the end of the day.

“How is business?”

“Doing well. In a little while, we’ll crunch some numbers with Josué and we’ll see if anything’s left over for Taciane and Daniel in the kitchen. Has everything on our WhatsApp list been delivered?”

Before Thursday arrives, Pé na terra sends their updated product list to their customers who eagerly await for the chance to put in their weekly orders. Farmers have to bring all of the requested produce, plus a little extra for market customers and the restaurant.

Naiara continues to serve customers. The place is packed today. The outdoor tables are full as well, with many customers taking the opportunity to have a cup of tea or coffee or some dessert. There is a flyer on one of the tables that reads:

**“Pé na terra focuses on the growing and processing of crops that encourage a healthy lifestyle and social inclusion.**

We basically run an operation based on the natural principles of our ecosystems. We work with agroforestry, where we combine woodland rehabilitation with chemical-free food production.”

“Sure. We sell honey,” Nayara tells Rudian, another customer. “But it isn’t certified as organic because our neighbors use conventional methods for their production. And, well, we can’t stop bees from flying to other farms. Honey certification requires that the farm holding the apiculture be at a large distance from planting areas that use chemicals for their crops. But we “feed” them native wildflowers so their honey has a very special flavor. This way, we can say that our honey is produced according to agroecological principles. Would you like to try some?”

This kind of discussion is recurrent. Naiara is passionate about honey and her profession. She is a biologist and a teacher. Her areas of expertise allow her to explain things clearly and calmly, but with a profound knowledge of nature’s biological processes.

While she was pregnant with Rodrigo, who now is eight months old, Naiara couldn't imagine Rodrigo eating anything else but her own farm's organic produce. You can't help thinking about your children's future, she thought. We have few options when it comes to healthy foods, but we want them to grow with those few possibilities. Taciane and Daniel also have a small child, Amélia.

In the end, this is just another driving factor of their initiative: their own diets.

Rudian heard about the market and the restaurant after being invited by other customers. He lives far away, but he tries to drive down to the market every Thursday. He enjoys talking to the farmers. He is friends with Naiara, Emanuel, and Josué. Rudian believes that buying produce in the market provides the peace of mind that comes with knowing where your food is coming from.

There are very few opportunities to buy organic produce here in Sananduva. You can find them in other parts of Rio Grande do Sul, in Passo Fundo, for example. The capital, Porto Alegre, has many more options, but it is 300km away.

Naiara and Emanuel met while they lived in Porto Alegre. He was an agronomy student and she studied biology. Emanuel's parents live in Sananduva, and six years ago, Naiara managed to secure a teaching position in the area, while Emanuel carried on his parents' apiculture business and developed it further.

The three businesses that make up Pé na terra are proof that it is possible to live on organic agriculture. Even though some conventional farmers deny it, we have shown that it is possible. Josué, for example, had to nag his own family. His parents—then in charge of Sitio Dossel—worked with conventional farming methods, but Josué decided to make a change and show that it is in fact possible to live off agroecology.

Nowadays, there is an incipient movement around Pé na terra, the local university and other key spaces that endorse and practice a different kind of agriculture, just like Naiara and Josué. There is also a Slow Food community that promotes healthy food and healthy eating habits. They encourage people to avoid eating processed food from big transnational chains, who couldn't care less about the way their food is grown.

"The dessert was delicious. Are the strawberries organic?" João asked, sitting with his reusable tote bags full of his market purchases, and feeling very proud of yesterday's discovery.

Someone brings him the check and he is ready to leave. He came to Sananduva to study, though he actually lives even further away from Porto Alegre. He might move someday soon, but he leaves knowing that no matter where he goes, no matter how small a town it might be, he needs to look carefully for other initiatives that will surprise him.

João is now aware that utopia exists and that it will always be there for those with a purpose to keep moving towards it.

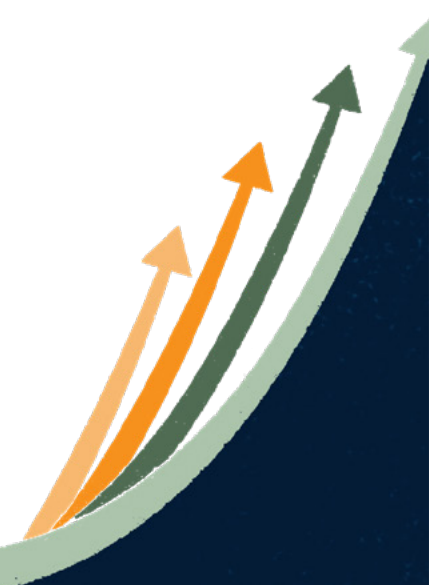
In 2020, before its second anniversary, Pé na terra received the International Fund for Agricultural Development's (IFAD) Rural Youth Innovation Award in the food safety category because it has been promoting healthy eating and sustainable agriculture as a path towards a fairer society. Its agroforestry work seeks to link woodland restoration in the state of Rio Grande do Sul, in Brazil, with organic food production.

In the future, they wish to continue contributing to the strengthening of new agriculture and agro-industrial production models, which consider various key aspects for the planet's survival, such as water quality and quantity maintenance and biodiversity maintenance, but also takes into consideration the harmonious relationship among people.

Naiara and Emanuel, Josué, Taciane and Daniel continue running the street market every Thursday. With the pandemic, they had to make some logistical changes. They now send orders received by WhatsApp straight to customers' addresses. Despite everything, they continue to make use of Pé na terra's open space with the appropriate sanitary protocols in place. The market serves as a display for their produce, but it's also a space for the exchange of ideas, meetings between people, and the propagation of agroecological philosophy.



UTOPIA RESTAURANT,  
USING PRODUCTS FROM  
THE MARKET



**Pé na terra, Brazil**

Facebook: @utopiagastronomia  
@vivaflor.eco  
Instagram: @utopiagastronomia  
@vivaflor.produtosnaturais  
@sitiiodssel

**MEXICO:**

**Una Mano para Oaxaca**

**PERSEIDA'S TRIP**





I'm sound asleep now. It has been like this for the past few years of my life. Everything is settled and in order. I've finished my studies and found a job. What is about to happen while I sleep tonight will change this life I'd chosen to lead forever.

It's 11:49pm, on Thursday September 7th, 2017, and I, Perseida Tenorio, am still asleep. I have no idea that in my hometown of Ixtaltepec, in Oaxaca, and across a large portion of southern Mexico, a powerful earthquake shakes the ground. Neither do I know that after tonight, nothing will be the same. I am almost a thousand kilometers away from the beautiful land where I was born and I'm still asleep. After a while, I wake up to a phone call from my brother. It's a little past 1 am on Friday.

"Perse, are you awake?"

"No, I'm still sleeping." I barely manage to say.

"There was an earthquake on the Isthmus."

From that moment on—until I left later that Friday afternoon—I couldn't think of anything other than my mother, grandmother, my town, and what I could do to help.

I simply can't go back to sleep with all this fear, anxiety, and desire to help, but I simply don't know how to. I open Facebook to see if anybody's saying anything about the tragedy. I see pictures and decide to write: "Feeling helpless being so far away from my family at this time. It breaks my heart to see images of what happened... Does anybody know how we can help?"

I want to help but don't know how. Tomorrow morning, I will start collecting supplies for donation and try to be there as early as possible. I am still very far away.

For many years, I had thought about coming to Querétaro for my studies, but after finishing, I would go back to Oaxaca to be useful to my people. I didn't go back. One thing led to another and here I am, working in a field that I did not study for, but which excites me all the same.

I majored in industrial food engineering in the Tecnológico de Monterrey, in Querétaro. I received a scholarship because I came from an indigenous Zapotec community. Now I work for Fundación Capital, which has its main offices in Bogota and several branch offices in many Latin American cities, including Querétaro. I work as the regional director of financial education, managing a program that works with communities living in poverty conditions. In fact, on Friday morning, I still believe I'll be promoted. My main responsibility is to provide financial education to people who are excluded from opportunities. I am happy because I can connect my job with my passion, social issues and the inclusion of vulnerable people. I believe in opportunities. I'm a social dreamer. But I'm not in my hometown.

For now, everything will be left behind—at least for a few days—because I'm heading south. I need to be in Ixtaltepec as soon as possible. My life-long friend, Aida, and my dog join me on this trip. We are riding a truck loaded with supplies, collected in the 12 hours I had to get ready to leave. I pack a bag with a handful of things, my computer, and I'm ready to go. Besides helping, what I want the most is to know how my grandma is doing. I have no news about her.

It's early morning and we start a solidarity campaign at 7am to collect supplies from around our community. We received lots of donations and filled up the truck. My brother made a sign that said: "Una Mano para Oaxaca" (A hand to Oaxaca, in English). Many people donated. My dear friend, Alejandra, is staying in Querétaro to organize additional shipments, due to the sheer amount of donations collected. I'm leaving as soon as I finish loading my truck.

"Yes, yes, let's go. I'm coming with you. I also want to know about my family," said Aida. I could use someone to share the road and my concerns with.

ARTISAN FROM OAXACA  
AND HER BREAD OVEN,  
REBUILT BY UMPO



And off we go. We pass through the states of Hidalgo, México, Tlaxcala, and Puebla. It gets dark firefly quickly, but we press on. "To be honest, I can't think of much else right now. I just want to know how my family is doing." I insist. "I still don't know anything about Mamá Nella, my grandma, and I've heard reports of several deaths and a great deal of destruction."

After driving for a few hours, I told Aida:

"Could you drive, please? I'm tired."

"But I don't know how to drive," she replied.

"What do you mean you can't drive?" We left in such a hurry that I forgot to ask. I had no option but to keep driving.

It's Saturday already. We now have fewer hours to go. We still have to cover Veracruz before we reach Oaxaca.

My worst nightmare, now that I can't take my eyes off the road, is not being able to find my grandma alive. I've received a couple pictures of her home, our home, but nobody told me what has happened to her. I can't believe what happened to my hometown. No one ever told me that an earthquake could happen on the Isthmus.

The strongest Earthquake that Mexico had had until then was the 1985 Mexico City earthquake. I was just starting to grow in my mother's belly back then, though.

When we arrive, the first thing I want to do is look for my grandma and hold her. Is she alive? As I think about it, a fog comes over my mind. I keep driving.

Right now, I can't think about anything else, but soon I'll be recruiting people to help with the distribution of the donated supplies, both the ones I brought in my truck and the ones we will collect in the future.

We won't stop at distribution. That sign, which was made early Friday morning in Queretaro, will be prophetic. "Una Mano para Oaxaca" is the name we'll give to what we are going to make happen later.

# In a couple of hours, while we are distributing the donations at the square in Ixtaltepec, I'd be thinking that we need an economic reactivation methodology for post-disaster zones.

I'd be calling my boss to tell her that I need to stay at least another week, but also to ask her for the methodology that could be applied in this situation.

Before we get there, in a few hours, the universe will speak to me once more. By Sunday I will be distributing all the food, water, cleaning supplies, sanitary napkins, everything that people need.

I'll realize that we won't be able to continue distributing donation supplies because they won't last forever. Night will fall, and before going to bed in our improvised campsite, I will ask for a sign. "What to do?" I will think before drifting off to sleep.

The following day, we'll be going to the park to distribute supplies. Rice! Sanitary napkins! People will come for the things they need. A man called Paco will approach and ask for a liter of oil.

"Take something else. We have plenty." I'll tell him.

I'll ask:

"Why a liter of oil? Why don't you take anything else? What are you going to eat tomorrow? There's more food here. Come on. Take some."

"We are going to have tomato soup and the only thing we don't have is oil. Tomorrow, we'll see," Paco replies.

And he'll continue:

"Better give it to people that don't have anything to eat for today."

Paco will leave with his oil, turn around and tell me:

"Listen, if there's one thing you could help me with, it's to rebuild my bread oven. We are bakers and we work with nine other people with nine families to feed."

That will be the sign I asked for the day before. That's it! I'll return home—the improvised campsite where my old home used to be—and speak with one of my aunts. "Rebuilding ovens, that's how we can help!" I will say, excitedly.

But none of that has happened yet. I still don't know anything about my grandma and, right now, I can't think about anything else. We entered Oaxaca state. I don't want to slow down. We have been driving for over ten hours. Right now, I can't think about oven rebuilding or economic reactivation. I can only think about taking the donations and about Mamá Nella. I can't think about Paco, either. I haven't met him yet.

After I meet Paco, I'll be able to put aside the things I've been doing and will start talking to people to move things forward. We'll continue with Una Mano Para Oaxaca, but in a different way.

We'll get data on how many families were in the baking business before the disaster. Bread is a key element in Oaxaca and Ixtaltepec's food culture. We'll call people for meetings. We'll build a positive energy circle and try to find all the families that need to rebuild their ovens. These were brick ovens that were destroyed during the earthquake. I'll start a list of local bakeries and bakers. Most of them are women, including Paco's wife, who came from a long line of bakers.

It wouldn't be me, but Paco, the baker, who will provide guidance on where to go next. Three days after the earthquake, he'll be thinking about his own economic reactivation. He'll ask for what is urgent and will think about what is important.

The universe will speak through him. That will be the moment in which both of us are ready. The fact that he was only looking for what he actually needed will get me thinking. Who is this person? Why isn't he hoarding? He'll be on a different wavelength. Thanks to him, reactivation, as we'll call it later, will be underway.

"Of course he's not the only local baker!" I'll think.

"That's the way to go," I'll yell in excitement.

Then, I'll conclude that I'll be in Oaxaca for three weeks and then go back to work in the Fundación, in Querétaro, to start in my new position.

I'll call my boss and ask for an economic reactivation methodology for post-disaster zones.

"There's no such methodology."

"What?" I ask in disbelief.

Silence.

I'll soon learn that the moment for me to make my decision has come. I'll want to build hope, light, and reactivation. But I'll realize that I have to stay if I want to do all that. I'll sit down in the middle of the park and cry.

I can't even imagine these things as I drive towards my hometown. We aren't there yet but I can sense that we have crossed the state border. I can sense the colors of the Oaxacan villages all around us. I kept on driving, no sleep at all.

That moment at the square, as I cry, will be the moment in which I realize I must leave my personal dreams behind and change the course of my life. I couldn't have planned an earthquake to decide for a change. No way. My former plans were to continue working for Fundación Capital in Querétaro and raise my social status. Earning much more money, but still working on social issues.

"Karina, I'm really sorry, but I can't go back to working with you. I can't conceive of not helping the people in my hometown." I will tell my soon-to-be-former boss.

I keep my eyes on the road. Aida sleeps. I keep on going, thinking about my grandma, thinking about my ancestors. I hope they've protected her. We are on highway 1350, nearing the state capital. We have covered about 700 kilometers and I'm frantic with worry.

I still have no idea that it will take me months to structure Una Mano Para Oaxaca. That it will be a platform for the development of financial education methodologies and economic reactivation in post-disaster zones as well as future activities.

Over the next few months I will make this same trip several times over. It will become untenable and I will have to make a decision. I'll stay in my hometown for good.

On December 11th, I'll be celebrating. "Everything started with one family, Paco's family. We started with one baker, then thirty-two, and later forty-five bakers who recovered their sources of income! Thanks to all and to the universe for bringing such wonderful people into my life." I will write on my Facebook page.

Just a few days after the earthquake, we'll be putting together a local Tequio but we'll use social media to ask for global support. We plan to start with thirty ovens. A Tequio is an Indigenous tradition in Mexico of unpaid collective work, as a form of mutual aid.

Our plan will be to map out all the families that need to rebuild their oven as well as collect donations on a local, national, and international level. However, what is most important is to revive the old indigenous tradition of mutual aid, in other words, cooperativism.

After that morning when I posted my message on Facebook, everything would move fast. My cry for help in rebuilding my people's ovens will spark support from all over: people that didn't know me, didn't know Oaxaca, including famous bread baking companies. They will tell me that they saw the videos and would like to help with ten, sometimes twenty ovens.



Many years later, we'll receive the International Fund for Agricultural Development's (IFAD) Rural Youth Innovation Award for this initiative that has generated a unique methodology for economic reactivation based on ancestral knowledge. Later on, FAO would also acknowledge the work of Una Mano Para Oaxaca, with a new idea called Mi Fruta, Mi Pueblo (my fruit, my people, in English), a project aiming for zero fruit waste in Ixtaltepec and in the region.

All this will happen later. I'm just about to arrive in my hometown.

I see the house where I spent my childhood, which holds so many of my memories. I walk in. I need to know about my grandma. The same house where I used to count wooden boards on the ceiling before falling asleep, where I would swing on hammocks that were around; it's been destroyed.

I see my grandma. She is 85 now. When the ground started trembling, she stood up from a hammock, walked a little, saw a wall coming down, walked towards a door frame, saw another cement block coming down. She didn't make it to the door. She looked for a corner and stayed there until it was over.

Today, knowing that grandma is well, I walk into the house. Everything has collapsed, everything, except for the corner where my grandma sheltered herself until the tremor was over.

After seeing Mamá Nella, holding her and crying, after distributing donations, after meeting Paco, after imagining the reconstruction of each of my people's ovens, after gathering more people, more organizations, together with my friends, I'll know that I accomplished a collective dream. Una Mano Para Oaxaca is the result of this first trip where I traded my personal goals for the future for the chance to build a larger community dream.

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# Youth, innovation and participation

## OPEN INVITATION

The journey we've made through these routes of innovation has been made possible thanks to the young individuals who participated in the Rural Youth Innovation Award's First Edition organized by the International Fund for Agricultural Development's (IFAD) South-South and Triangular Cooperation and Knowledge Centre in 2020.

Latin American youth have much to offer to the world due to their perception of their surrounding reality and how it affects their lives. The ten groups highlighted in this publication have received opportunities that are hard to come by. These groups were able to consolidate their initiatives and achieve their set goals. Many other projects are taking their first steps in the midst of difficult situations facing the region. These other projects will face obstacles and hardships, but could also find, on occasion, routes to success. These roads will remain open so long as there are those who wish to tread them.

We extend an open invitation to these currently unknown youths, to emerging initiatives and those currently underway, to every innovator looking to take their first steps. The Rural Youth Innovation Award will return in future editions and expects that all initiatives that aim at improving living conditions in rural Latin America will present their ideas.

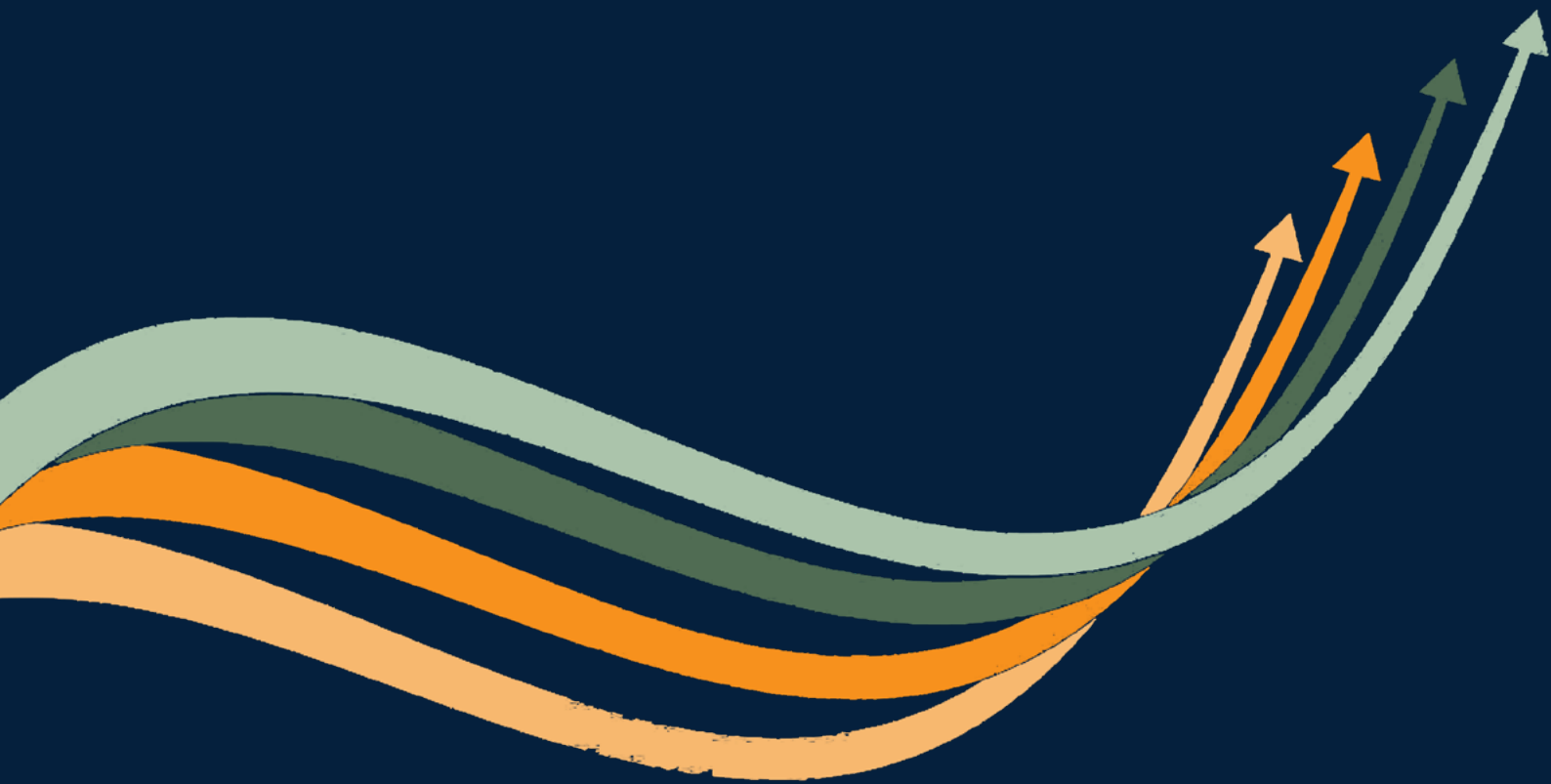
Once again, we thank all the young individuals who participated in the Rural Youth Innovation Award's First Edition. We wish you all, especially the selected initiatives, great success in your future professional endeavors for rural development in the region.

For more information and publications about the award-winning initiatives, please visit the following website: <https://lac-conocimientos-sstc.ifad.org/>.





Investing in rural people



**AWARD**  
RURAL YOUTH  
INNOVATION IN  
LATIN AMERICA &  
THE CARIBBEAN



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# ROUTES TO INNOVATION

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