

Sustainable tea in Argentina

10 years supporting
small farmers thrive in
the Atlantic Forest

Solidaridad

Enrique Senger and son in his tea plot



A vertical photograph of a tea plantation with rows of green tea bushes stretching into the distance under a bright sky. The image is partially obscured by a white and yellow graphic overlay.

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Introduction

integration of small farmers into supply chains

The corporate social responsibility (CSR) agenda encourages companies to adopt a “Bottom of the Pyramid” (BOP) approach to proactively integrate low-income producers and communities into value chains. The BOP approach emphasizes key terms such as economic empowerment, balance of costs and benefits, and bargaining power vis-à-vis other stakeholders in the supply chain to enhance smallholders’ wellbeing and livelihood security (IFAD, 2011).

As low-income producers at the bottom of the pyramid, smallholders manage labor-intensive farm crops with relatively high input and production costs due to inefficiencies. With an estimated 500 million smallholders farming less than two hectares of land each, this group of stakeholders is vulnerable to market price volatility and the emigration of the younger generation (Estrada, 2006; IFAD, 2014).

Improved access to the market and value chain can provide smallholder farmers with clear benefits, such as stable income, technology transfer and skills development; however, it also has significant cost implications, particularly given the need for producers to comply with an ever-expanding set of standards related to quality, environmental and social aspects.

CSR is also evolving towards more inclusive concepts such as corporate sustainability, collective impact, and environmental, social and corporate governance (ESG), where the business case is not just about doing good or managing reputation, but about how companies can improve their core operations and returns by addressing long-term impacts. In line with the above, there is an ongoing transition from soft to hard CSR, that is, there is a shift from having codes of conduct to actual measurement, monitoring, reporting, and verification (Utting, 2005).





Arnoldo Holzmeister in his tea plot, Solidaridad.



Main challenges

faced by

Argentina's

tea smallholders



Agricultural landscape in Misiones combining tea farms, forestry and native forests, Solidaridad

Main challenges faced by Argentina's tea smallholders

Since the 1950s, Argentine growers have produced CTC (cut, tear, curl) grades of black tea for export markets. In 2018 (the last census before the pandemic), Argentina was the largest supplier of tea by volume to the United States, producing 56,000 tons that are used to make iced tea for the U.S. market, concentrating about 70 percent of the country's production.

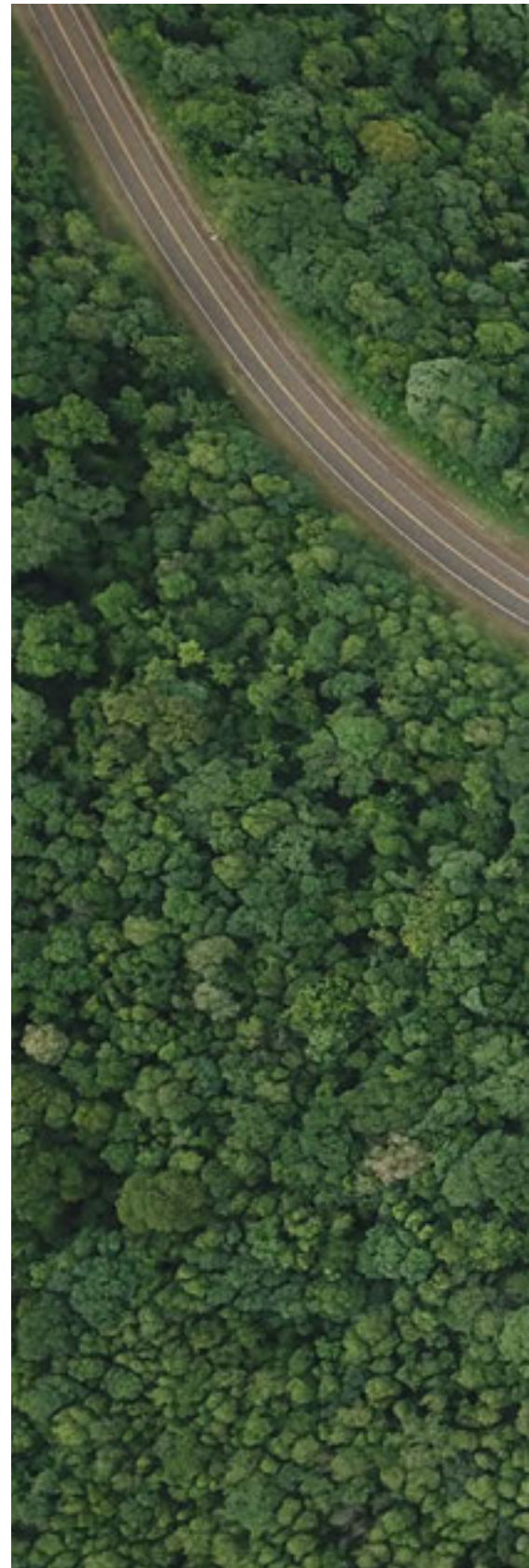
The area planted with tea covers 40,000 hectares and involves 7,000 smallholder farms of less than 20 hectares each. These farms produce a significant percentage of all exported tea, yet they are amongst the most vulnerable. Factors such as economic crisis, an increased supply of tea from other countries, inflation, and natural disasters can put this particular group at risk. **The average income in Misiones province is USD 4 per day, and 60 percent of the rural population cannot cover its basic needs.**

Tea production this south is possible thanks to the climatic conditions created by the Atlantic Forest, which covers half of the territory of the province of Misiones, in northeastern Argentina. The area harbors the largest continuous concentration of Atlantic Forest remaining in South America and has the highest biodiversity in Argentina.

These forests are responsible for CO₂ sequestration, provide revenues from tourism (Iguazú Falls is just 270 km from the main tea-producing area), and play a crucial role in agriculture. They are a habitat of pollinators and other beneficial insects, provide soil nutrition, help to regulate temperatures, rainfall and water supplies, and encompass around 800 watercourses.

As there is no piped water in the area, families use water from streams and watersheds for consumption and irrigation. Water analyses carried out by Solidaridad have shown that stream water is not always fit for human consumption because cattle and other animals access the water springs, making them their watering holes. However, where forests are maintained or have been recovered, the water supply has become clean and is not diminished during dry periods because the vegetation protects the watercourses. Raising awareness of the value of forests is key to conservation, as 84 percent of the native forest is on privately owned land.

Soil protection poses another challenge. The topsoil is the layer richest in organic matter and, without proper management, is very prone to water erosion due to the steep slope of the land. The area receives up to 3,000 millimeters of rain per year, which is the primary cause of the loss of soil fertility. Since it can take many decades to restore the topsoil, erosion prevention is also key.

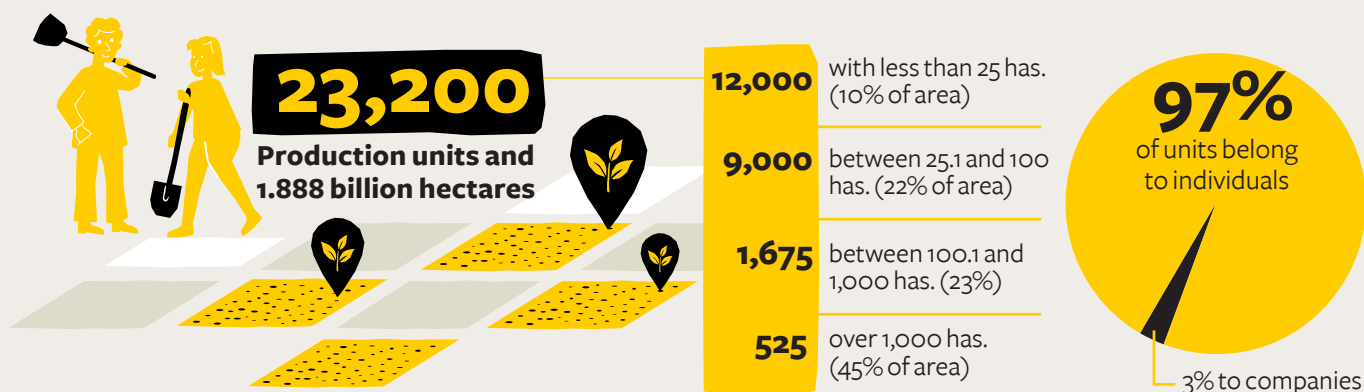




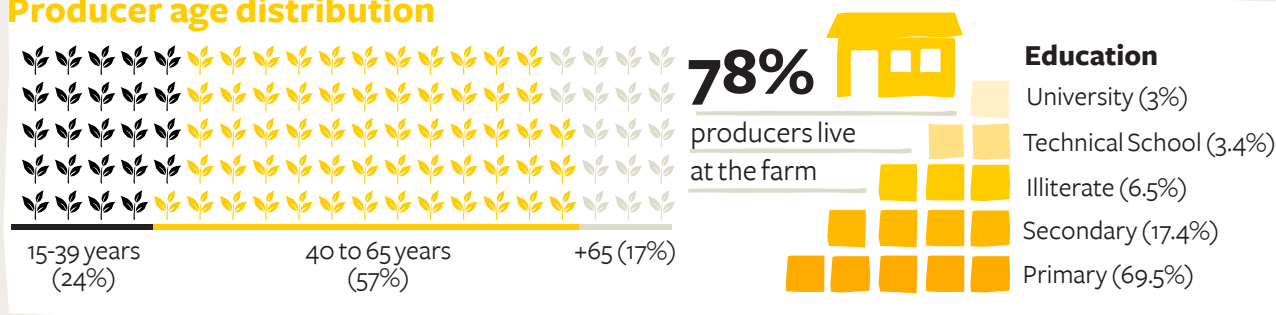
Atlantic Forest presence in Oberá, the main tea producing area in Misiones, Solidaridad



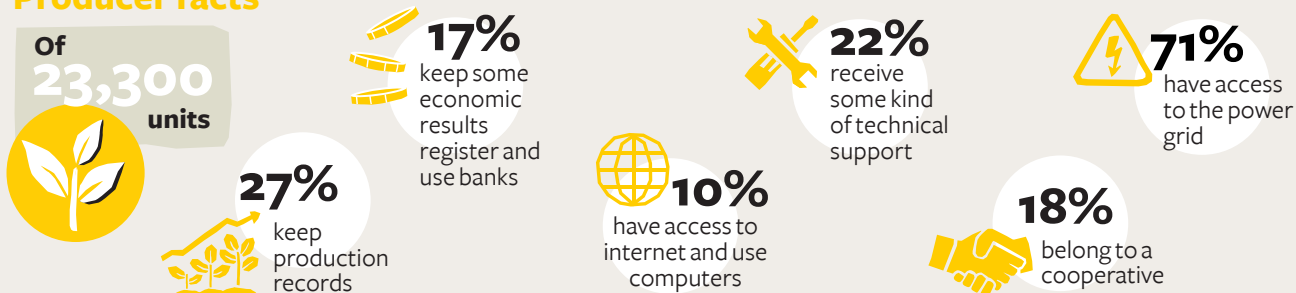
The average producer



Producer age distribution



Producer facts



With the increase in the costs of harvesting and inputs such as fertilizer and pesticides in recent years, along with the lack of access to credit and technical know-how, it has become increasingly difficult for small producers to improve the quality and volume of their production. Moreover, the relationship between smallholders and other producers in the area – such as cooperatives and tea manufacturing companies – is usually weak and without much interaction. The tea sector in Argentina has remained relatively isolated and, for many years, farmers have endured poor working conditions. Due to the inadequate returns for the sale of their product, tea is not the main cash crop for their livelihood.

When tea gained national importance for the export market, the industrial sector built 150 dry processing plants, of which 93 are currently active. However, only 29 of these plants are involved in processing 52 percent of the total national production, and only 40 percent of the active processing plants have adequate technology and machinery to process tea. Seasonal workers are employed at the processing plants to help with the diverse tasks involving the processing of tea. There are limited good manufacturing practices at the processing plants because of the turnover of workers.

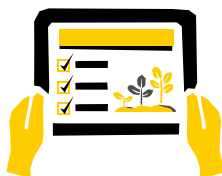
Although there is no internal market for certified tea, the export market for the product has emerged in recent years and is playing an important role in achieving sustainable livelihoods and raising the quality of life of smallholders. In Argentina, the small tea producers accessing certified markets are usually organized into primary level cooperatives made up of between 300 and 1,000 members. Although these cooperative groups have existed for more than twenty years, it is only in recent years and as a result of Solidaridad's business model that they have gained access to markets for certified tea. The main benefit of this linkage is not the premium per se, but

the investment that companies are willing to make in producers to improve their supply chains.

A new wave of entrepreneurship is attracting the interest of many smallholders in the region. With a vision of a more sustainable environment, producers are interested in becoming certified in order to engage in good agricultural practices and improve the production and quality of their product.



Continuous improvement intervention model



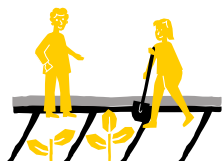
Understanding the challenges. Solidaridad provides a digital platform that consolidates and analyzes farm data in order to develop group baseline assessments. Capacity building activities and materials are then planned according to the group's identified gaps. Each farmer also receives an individual report with tailored recommendations to bridge the main gaps at their farm.



Building capacity. Field officers from the producer associations receive training, while producers and workers learn good practices and improve their managerial skills through game-based activities and demonstration plots.



Adoption of practices. Field officers make technical visits to producers to shoulder and guide the adoption of new technologies and work habits at the farms, as well as to monitor progress.



Producers assess the changes they perceive, measure results and exchange experiences with their peers in order to identify lessons learned, benefits and provide new inputs to improve and scale the program.

Timeline



2010 - 2013

First intervention in the tea sector with partner Universidad Gastón Dachary

- 180 field and processing plant officers trained in good production and manufacturing practices
- 150 field workers and 300 workers from processing plants working under safer conditions
- 5 companies, 2 cooperatives and 360 producers certified under UTZ/Rainforest Alliance standards



2014 - 2016

Adaptation of the tea continuous improvement model to yerba mate, a popular local infusion cultivated alongside tea by smallholders for income diversification.

1. 142 producers and 192 processing plant workers trained in good practices in Argentina
2. 28 field officers and 1,041 producers trained in good agricultural practices in Paraguay.



2017 - 2020

Second intervention in the tea sector with partner S&D, through its Raíz program.

2020-

First intervention in the yerba mate sector in Brazil, with partner Coca-Cola Brazil and Mate Leao

Solidaridad started working in the tea producing area of Misiones in 2010 because of lack of organization and resources available to ensure that smallholders increased their productivity and the quality of their product, within a necessary sustainability framework. At the time the project was initiated, the baseline data showed there were no other development projects in the area that focused on improving the working and farming conditions of tea smallholders and workers.

The project encouraged good agricultural practices through direct technical assistance and workshops to adopt a smart and sustainable use of land and water. Producer associations also received support to improve their management processes, and collaboration and trust was promoted among chain actors.

Once established in the region, Solidaridad also called on processing plants to adopt good agricultural and manufacturing practices. Changes in practices were encouraged to allow processing plants and smallholders to comply with certification requirements (initially with UTZ, and later with Rainforest Alliance).

At the manufacturing level, Solidaridad worked with tea processing companies to provide the adoption of personal protection equipment for workers, develop policies for worker hygiene and the cleanliness of the plant, introduce a dust extraction system and the mechanization and protection of machinery, and to establish a drop-off area for tea, better work conditions for staff members, and new operating policies with better communication between management and workers. Interviews with workers and technical staff from the



processing plants revealed the knowledge gained by management staff on the importance of efficiency in reducing costs.

This first intervention was complemented by a market mission and a visit to the 3rd Annual North American Tea Conference, held by the Tea Association of Canada and America in 2013 to provide local cooperatives and SMEs with access to traders, importers, distributors, suppliers and packers from around the world to identify business opportunities.

Involvement of S&D and McDonald's



To meet their customers' demands regarding the traceability of food ingredients and the conditions in which they are produced, in 2016, McDonald's set the goal that all the tea served in the US be sustainably sourced by 2020. The company decided to source 100 percent Rainforest Alliance certified tea, but when they set that goal, they soon realized that some tea was being sourced from smallholder farmers who would not be able to become certified without receiving support.

Since one of the components of McDonald's sustainability goals is to ensure the economic viability of its producers, it developed a program together with trader S&D Coffee and Tea to make

sure all their smallholder suppliers received the necessary training and equipment for their farms in order to become certified.

S&D, through its Raíz Sustainability program, then partnered with Solidaridad in 2017 to sponsor the certification of up to 100 smallholder tea farmers from Cooperativa Dos de Mayo, Fontana and Valmitran (with whom Solidaridad had already worked between 2010 and 2013). The overall objective of the project was not only to secure certification of the farmers' yields, but also to transfer tools and build capacity within their organizations to better value sustainability.



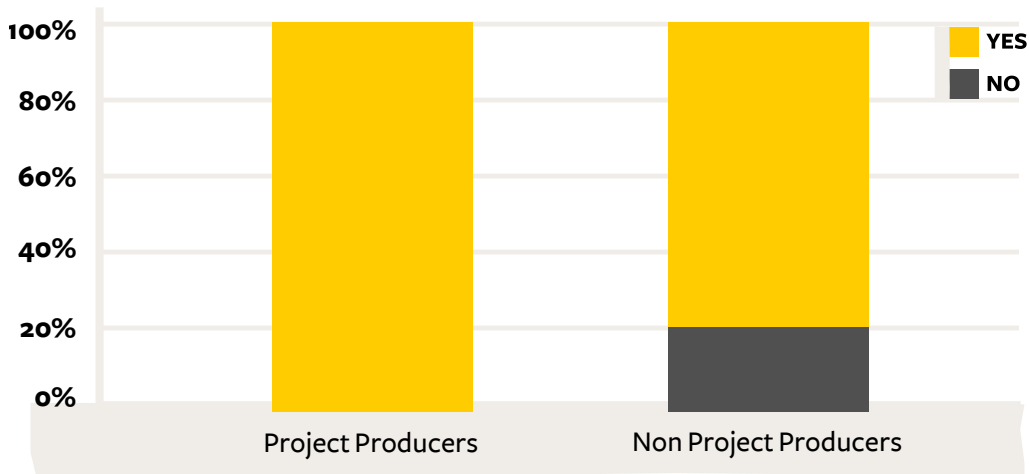




General results

- **At the end of the project
140 producers acquired RAS
Certification**
- **A total of 166 producers were
trained**
- **1,306.3 hectares of tea were
certified**
- **479 hectares of yerba mate
were certified**
- **3,984 hectares were
managed under sustainable
practices**

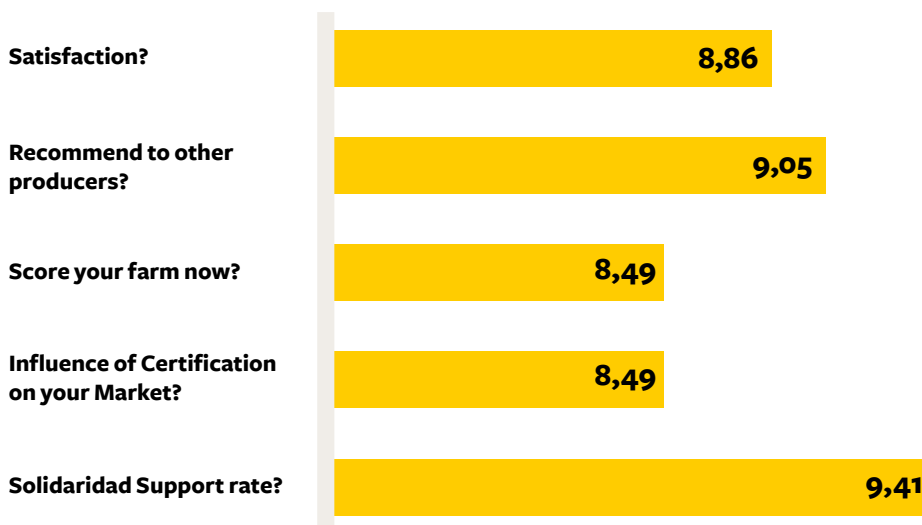
In the last 5 years: have you noticed changes at your farm?



Most of the producers recognized that undertaking continuous improvement was difficult, requiring family commitment to attend training as well as to perform monitoring, registration, and protection of watercourses, among other tasks. Nevertheless, as seen in the graph, all of the project producers interviewed in June 2020 by an external evaluator reported having noticed changes on their farms and recognized how these changes improved

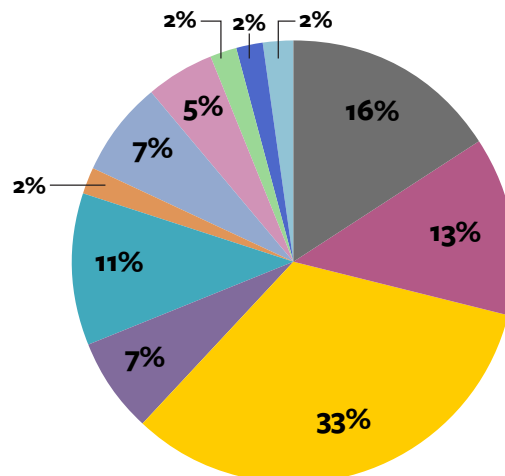
their quality of life. All declared themselves to be fairly satisfied and stated that they would recommend it to other producers. They also recognized the importance of a sustainable operation on the farm to secure access to better market conditions. Finally, Solidaridad's support has been highly scored by the producers, which shows the importance of technical assistance and support to ensure the success of the process.

Project Producers' rate (1-10)



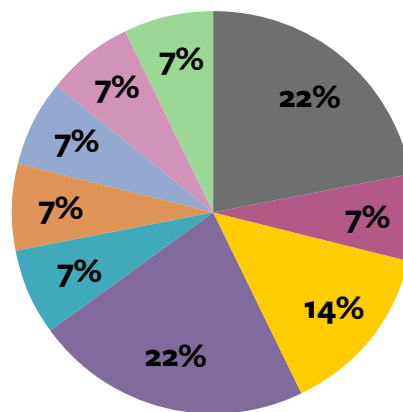
What things did you find positive regarding the change in your farm?

- Environmental Care
- Agrochemical Management, Pest control
- Farm Management, order and cleanliness
- Soil Management /Erosion control
- Acquired knowledge/trainings
- Continuous Improvement
- Production increase
- HV Fast Delivery
- Company/cooperative Organization
- Tea sale security
- Farm Sustainability



What things did you find negative regarding the change in your farm?

- Difficulty on water courses management
- Adaptation to changes and requirements
- Deforestation impossibility
- Difficulty on keeping records
- Little difference between certified & non certified tea
- Cost of improving environmental protection
- Certified tea little recognition
- Fertilizers' price
- More work



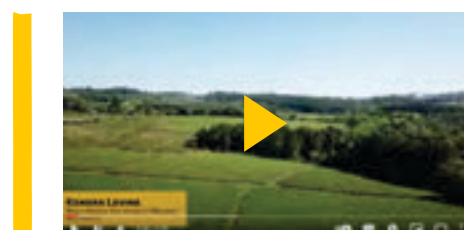
Results impacting human capital

Capacity-building provides smallholder farmers with the rationale, skills, and knowledge to perform effectively and pursue different livelihood strategies. The continuous improvement model designed by Solidaridad achieved this through customized training methods and materials that addressed the specific needs and challenges faced by small-scale tea farmers, and that have been useful and relevant for the past ten years.

Besides participation in workshops, producers also received a vast amount of direct technical assistance from their cooperative groups – namely Yerbatera Nordeste and Grupo Las Marias between 2010-2013, and Fontana, Valmitran and Cooperativa 2 de Mayo between 2017-2020 – that put a strong focus on good agricultural practices that allow for quality improvements. This supported

a shift towards a long-term vision among producers that is leading to the acceptance of a new sustainability model for farming practices. The support also resulted in the increased self-esteem and empowerment of smallholders, as mentioned in interviews.

The influence of the technicians who advise and support producers is another of the differences between project and non-project producers in terms of the training attendance and good practices acquired.

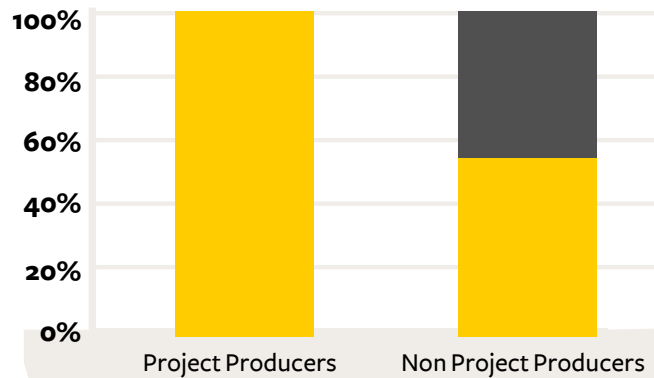


Watch the video: Food Safety in Tea

The influence of the technicians who advise and support producers is another of the differences between project and non-project producers in terms of the training attendance and good practices acquired.

Do you have a technician who advises you? (own/company/state/other)

YES
NO



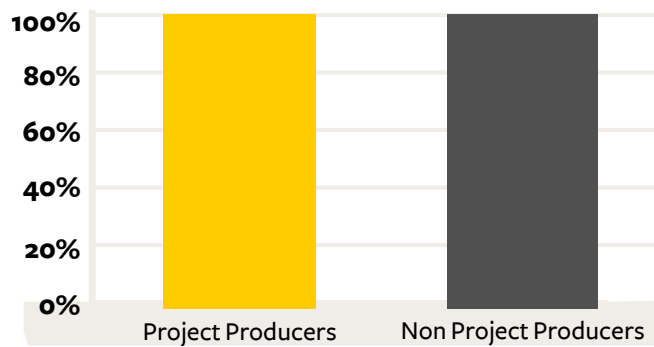
All the producers interviewed over these 10 years considered the technical assistance they had received was necessary to make the physical and environmental changes on their farm that would facilitate their access to sustainable value chains. The program contemplated frequent training workshops and educated producers on the financial benefits of a more efficient production process that focuses on sustainability and quality. The workshops and ongoing technical assistance clearly empowered smallholders through increased knowledge

and greater organization, giving them more time for production as well as better work conditions.

Increased knowledge of good agricultural practices was detected not only through interviews with smallholders, but also through the observed changes in the smallholders' farm areas. The results of smallholders implementing new knowledge of good agricultural practices provides strong evidence of changing conditions relating to human capital.

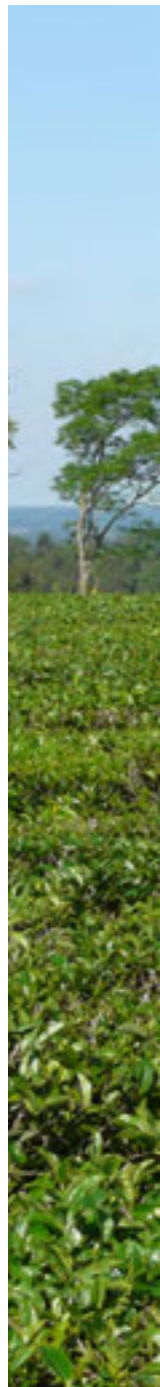
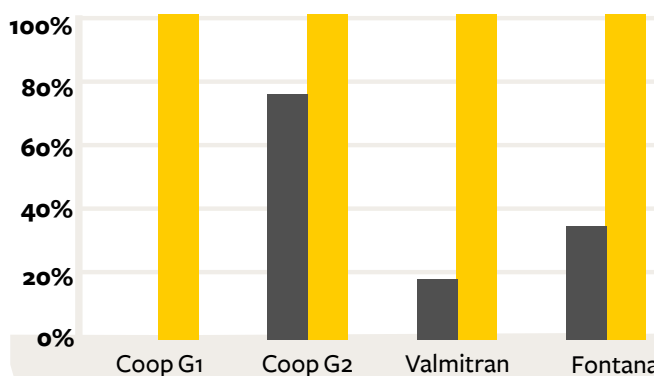
Do you have and use PPE?

YES
NO



Use of PPE before and after certification

After certification
Before certification



Before receiving certification, most of the producers did not use personal protective equipment (PPE), which remains the case for non-project producers.

The producers who attended training learned about how to safely handle and store agrochemicals, dispose of waste, provide first aid, and fire and accident management. This training allowed them to acquire skills that contributed to improving their environmental, productive and social performance.

Daniel Beckering



Now I know I have to wear boots to apply pesticides, and a special suit. Before I did not have any of these, I worked in "alpargatas" (espadrilles).

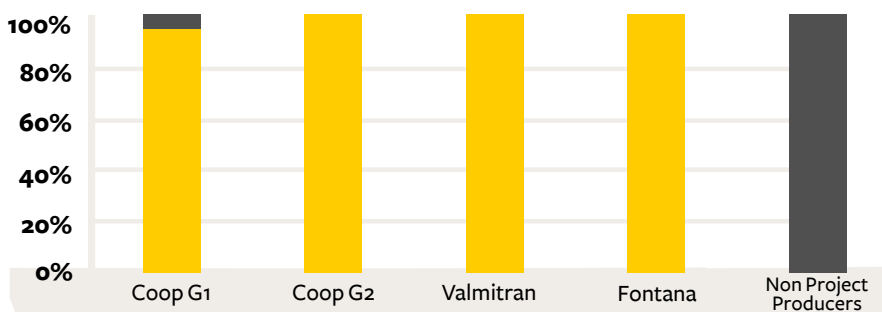


Tea workers wearing their personal protective equipment while managing agricultural chemicals, Solidaridad



Solidaridad also helped to build storage sheds for agrochemicals outside of the family home, Solidaridad

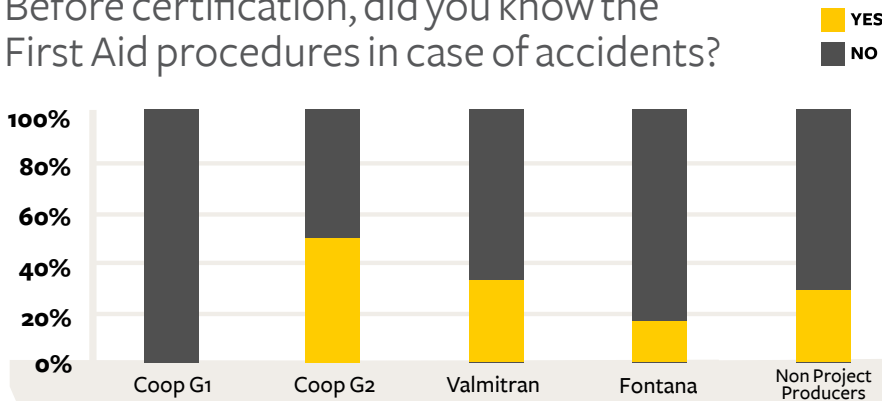
Do you have a safe store area for agrochemicals & fuel?



As can be seen in the graph, 10 percent of Coop G1 producers and non-project producers still do not have safe storage facilities after the project has ended, which indicates an important area for future work.

■ YES
■ NO

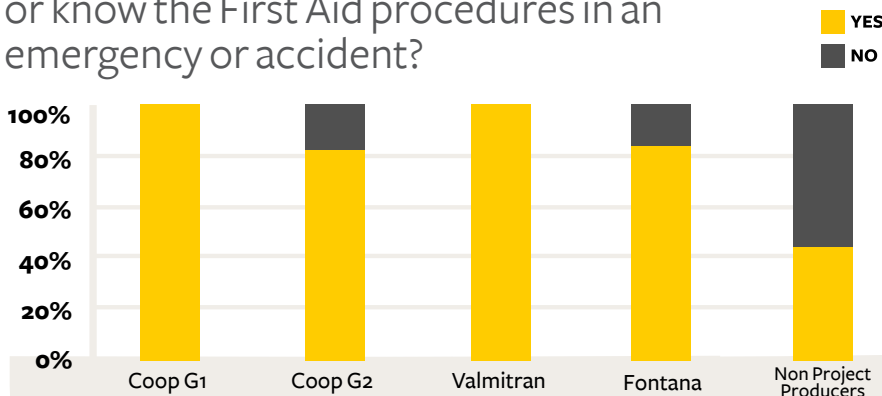
Before certification, did you know the First Aid procedures in case of accidents?



Before the project, there was a palpable lack of knowledge and equipment for first aid procedures and inadequate awareness of the importance of having safety equipment and PPE in sheds, machines, and vehicles. Coop G2, Valmitran, and Fontana producers had received some training prior to the start of the project, while the non-project producers involved in tobacco cultivation had made the improvements required by the sector. At the end of the project, most of the project producers had participated in training on first aid procedures and adopted good practices, such as the use of PPE.

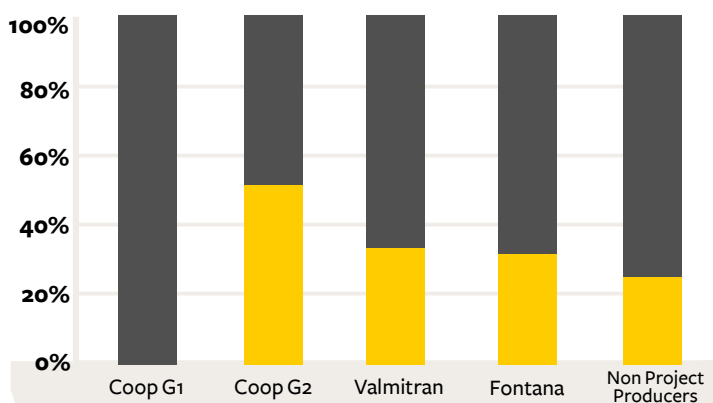
■ YES
■ NO

Have you participated in training and/or know the First Aid procedures in an emergency or accident?



■ YES
■ NO

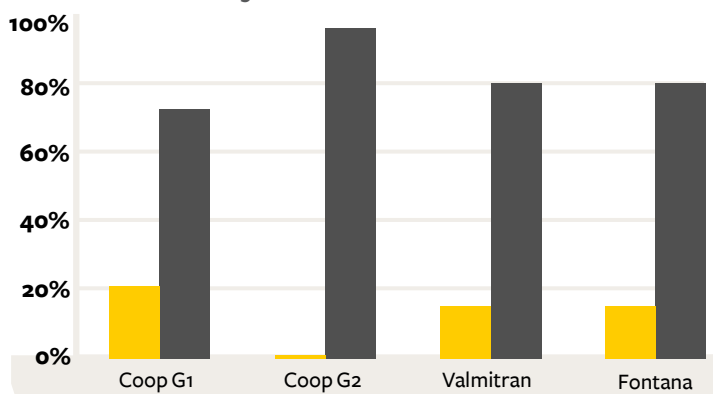
Before certification, did you have security equipment in sheds, machines, vehicles?



Before certification, only very serious accidents were considered as such. Now there is more awareness about the types of events to be considered accidents, which helps to prevent them and to know which actions to take should they occur.

■ YES
■ NO

Since Certification, have accidents occurred on your farm?



The increase in accident prevention is evident since between 80 and 90 percent of the producers state they have not had accidents on their farms since the end of the project.

■ YES
■ NO

Results impacting natural capital

Natural capital is the natural stock (soil, air, water, genetic resources, etc.) and environmental services (hydrological cycle, pollination, carbon sinks, etc.) needed to sustain livelihoods and production (Scoones, 1998). Tea smallholders in Misiones showed a strong commitment to environmental sustainability from the beginning. They were aware of the need to change their farming practices to conserve natural resources, as it would reflect in more productive land and better incomes to cover their basic living costs.

Many of the positive changes identified can be linked to the knowledge gained through the workshops and technical assistance provided

by the cooperatives. Observed changes include less erosion, more use of shade trees, less deforestation, established grassy walkways, greater use of organic material, use of rainwater, improved cleanliness, and better management of waste.

Watch the video: [Environmental Sustainability](#)





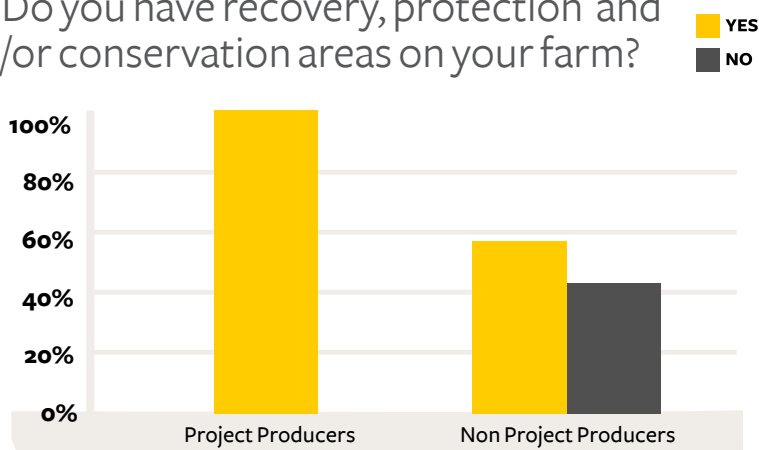
Permanent Preservation Area in the Horocszuck farm

The introduction of good agricultural practices is creating a positive impact on environmental sustainability; however, the smallholders recognize that environmental changes are gradual and the results will be seen over the long term. At the same time, sustainability is now perceived as essential for long-term development and to create a healthier land system that can be left as an inheritance to their children.

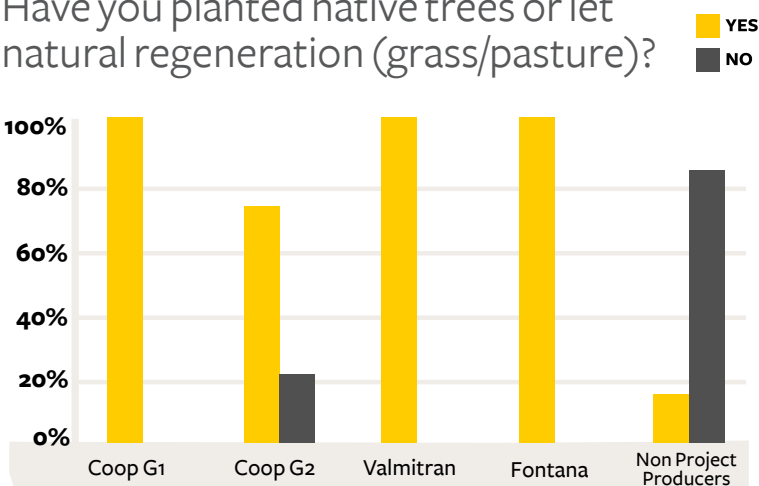
Through training, most of the producers have adopted good practices related to soil cover restoration or the preservation of native forests. All of the project producers stated that they currently have recovered, protected, or conserved areas on their farms.

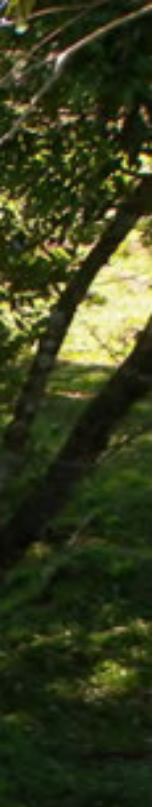
Most of the project producers have planted native trees in riparian areas and watercourses, and between 70 and 100 percent of the project producers have left cover around springs, thus avoiding soil erosion and preserving moisture.

Do you have recovery, protection and /or conservation areas on your farm?



Have you planted native trees or let natural regeneration (grass/pasture)?





Enrique Senger

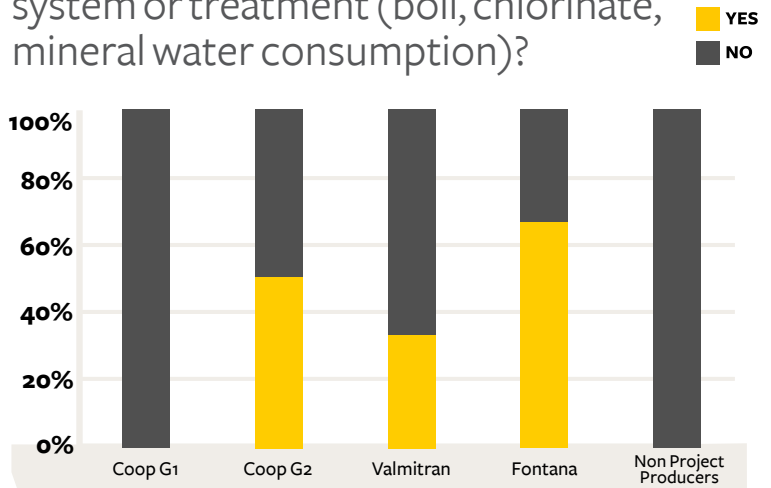
“Water Management was a bit difficult for me, I put a fence to prevent animals from crossing, and then I put a drinking trough. I fill it with a hoose, and so livestock doesn't get into the stream. If they enter they can contaminate the water and downstream there might be a neighbor who consumes it”

In terms of waste management, all the producers recognized the importance of improving the order and cleanliness of farms, stating it was the best change that could be seen on their farms. Before certification, between 70 and 100 percent of the producers kept their hazardous waste on the farm.

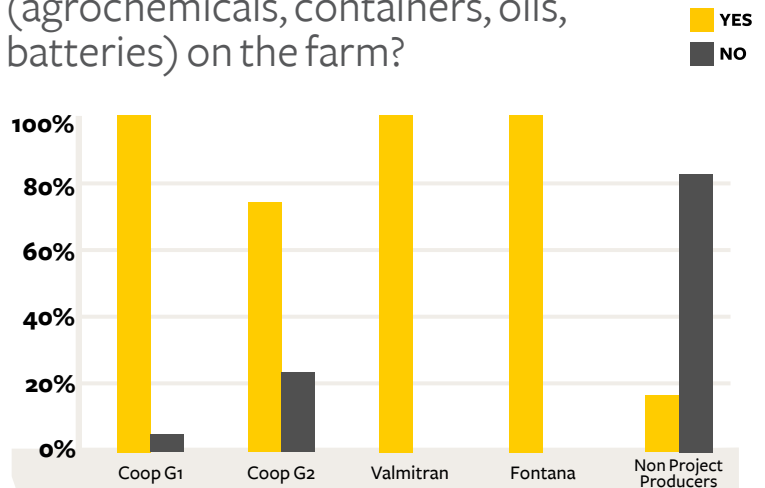
With regard to water conservation, producers have adopted fencing around watercourses as a way to keep cattle away and reduce contamination that may affect the farm and the neighbors. All of Coop G1 and many producers from the other groups have acquired water purification or treatment systems. However, further work is needed on this issue in order to increase adoption.

After project implementation, the producers acquired knowledge regarding the importance of safe treatment of hazardous waste and most of them adopted good practices. However, major investment in infrastructure is still needed to increase the safety of final disposal both at the plant and in the field.

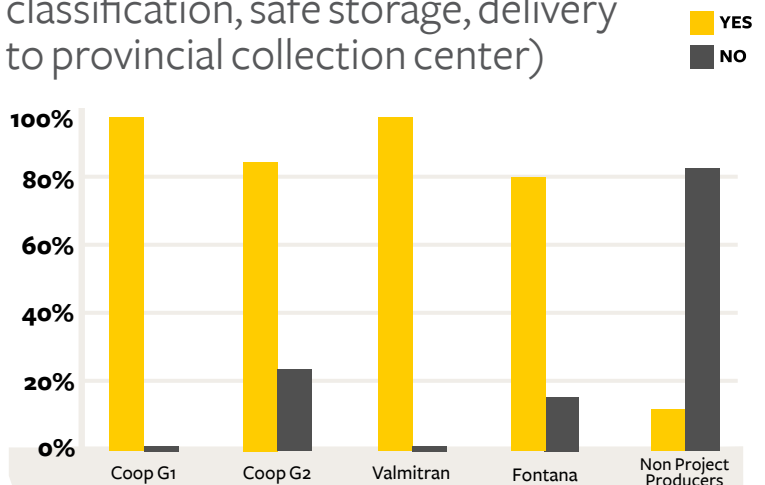
Do you have any water purification system or treatment (boil, chlorinate, mineral water consumption)?



Before certification, did you keep the hazardous waste you generated (agrochemicals, containers, oils, batteries) on the farm?



Currently, do you have any treatment for hazardous waste? (triple washing, classification, safe storage, delivery to provincial collection center)



Results impacting financial capital

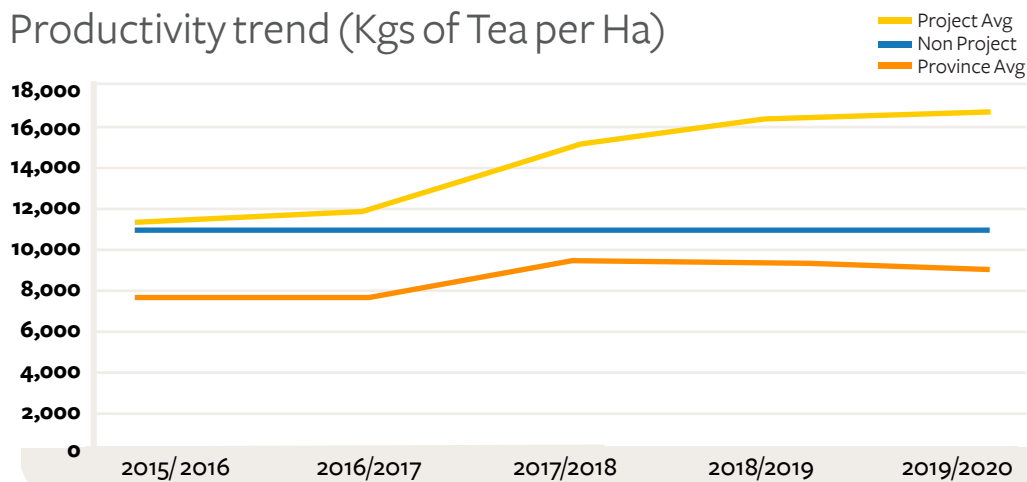
Financial capital represents the resources needed to sustain livelihoods (Scoones, 1998). The primary income activity of smallholders in Misiones is the production of yerba mate rather than tea. This is their main cash crop. Historically, tea has been a secondary income-generating activity, due to the low prices received for low-quality tea and the limited internal market for the product.

Selling tea to a sustainable supply chain and achieving certification has provided smallholders with the opportunity to work towards quality, which has translated into productivity gains as well as a price premium. On average, producers who participated in the project increased their productivity despite the last harvest of the project

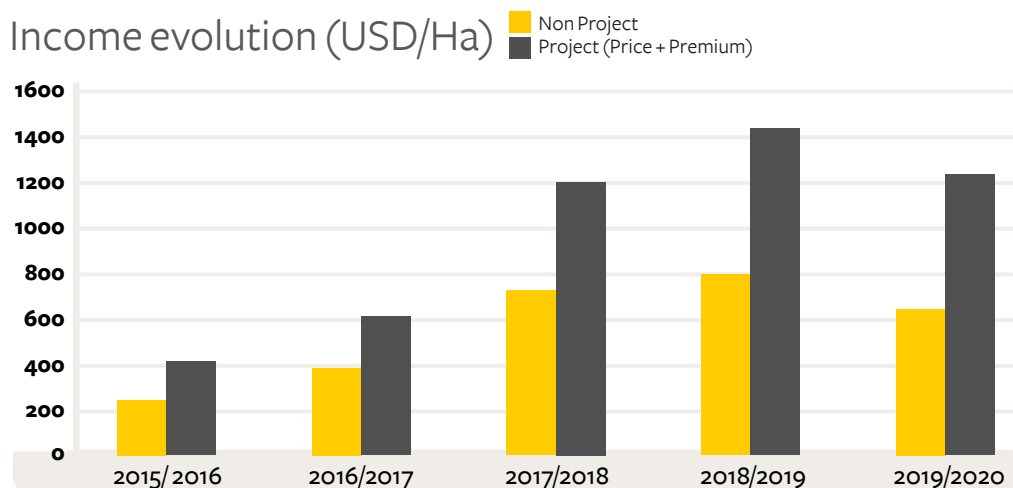
being influenced by drought conditions, which decreased yields. The provincial average (11,250 kg/ha) is estimated as Certified (12,000*50%) + Non-Certified (10,500*50%). Non-project producers are below the provincial average.

The average premium was estimated at 4 percent (lower than the theoretical 10 percent declared by Coproté). Producers claimed an increase of 23 cents more, rising from 0.45 to 0.68 cents per ton of tea in a period of two years. This small increase in price received for tea sold to cooperatives is contributing towards sustainable livelihoods. Cooperatives provided training to their members to calculate the amount earned for tea sold to specialty markets.

Productivity trend (Kgs of Tea per Ha)



Income evolution (USD/Ha)



The estimated gross income per hectare of project producers almost doubled that earned by non-project producers. Project producers also had additional financial benefits, such as earlier reception; in a year with interest rates of +/-100% per year over debts, this was very important. Indeed, the USD/ARS exchange rate was another important factor that affected incomes.

Campaign	AR\$				Exch. Rate USD/AR\$	U\$S		USD/Ha	
	Price	Premium Coprote	Premium Coprote	Estimated Premium		Project Price	Non Proj. Price	Project	Non Project
(2015/2016)	0,45	0,05	10%	4%	13	0,04	0,03	413,4	269,8
(2016/2017)	0,80	0,08	10%	4%	16	0,05	0,05	617,7	387,9
(2017/2018)	1,40	0,10	7%	4%	19	0,08	0,08	1.195,4	725,0
(2018/2019)	3,15	0,30	10%	4%	38	0,09	0,08	1.440,9	799,4
(2019/2020)	4,27	0,40	9%	4%	60	0,07	0,07	1.244,8	653,6

In addition, most of the smallholders interviewed reported they had access to credit for the first time. The cooperatives handle loans to producers in the same way as input providers, whereby the amount is deducted from the price received for the tea sold to the cooperative.

Recordkeeping was one of the pillars for improving financial sustainability. Before certification, only 40 percent of the producers used to record their activities on the farm. The certification

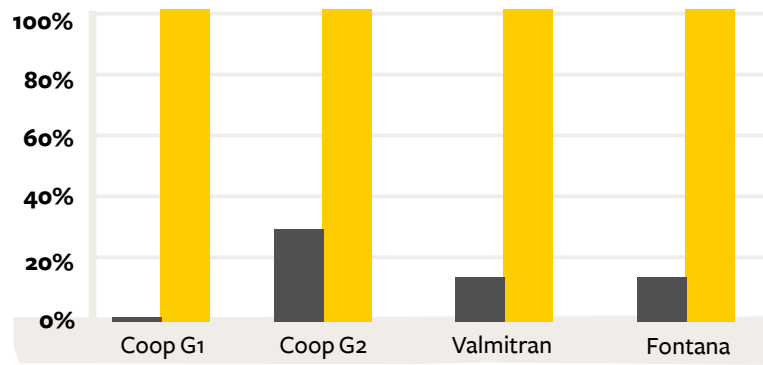
process increased producers' awareness of the importance of this activity in improving production management. Currently, all of the producers keep records on the use of fertilizers and herbicides, dates of application, tea prices and production yields. This can be understood as better management of their business. Project producers reported they have more information about crop management, farm care and safety & environmental care.



Typical vegetation from the Atlantic Forest biome, Solidaridad

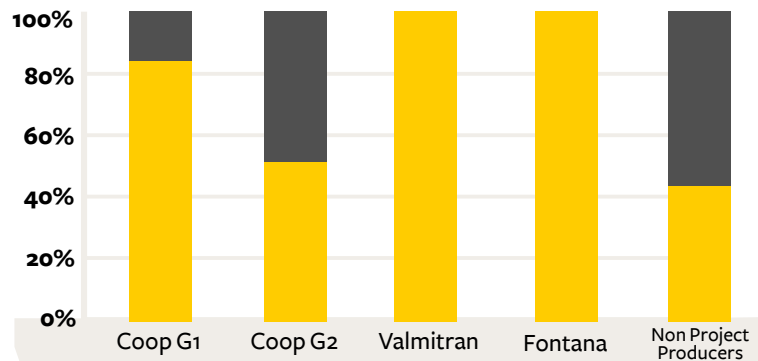
Activity record After & Before Certification

■ Before Certification
■ After Certification



Do you carry out an economic analysis per harvest (cost, gross margin)?

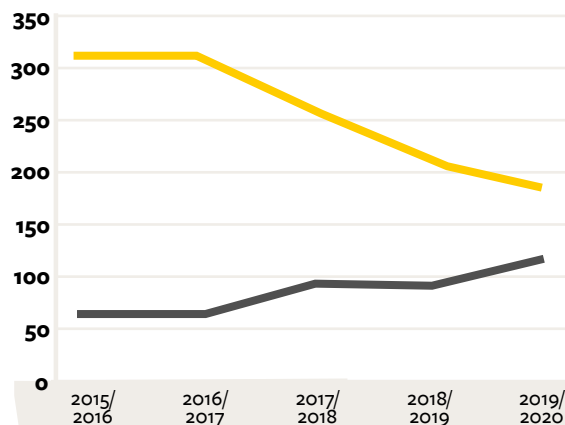
■ YES
■ NO



As a result of improved management, the application of inputs became more efficient, as can be seen in the following graphs:

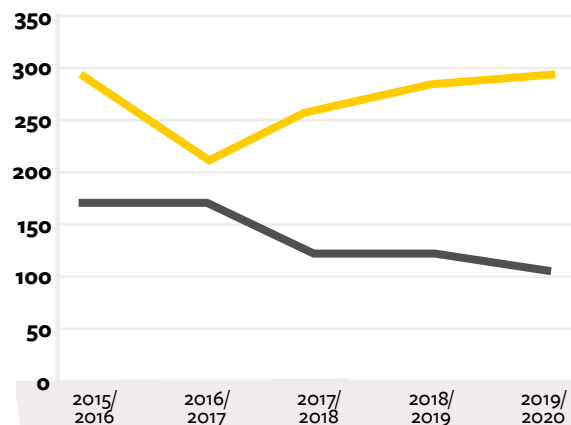
Fertilizers use trend Kgrs/Ha

— Project Avg
— Non Project



Herbicides use trend Kgrs or Ltrs/Ha

— Project Avg
— Non Project

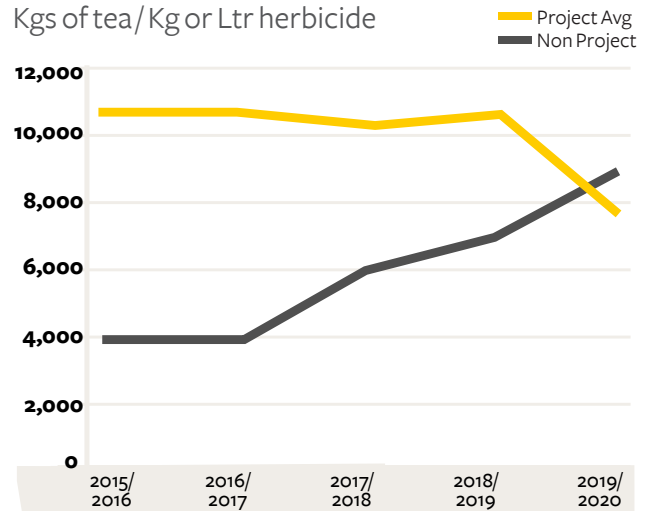


Producers in the project increased their use of fertilizers (nitrogen-based) based on soil analysis, while those who were not involved in the project decreased their use due to rising input prices and the lack of input/output analysis. Productivity per unit of input at the project producers is stable

at +/- 60 kg of tea per kilogram of fertilizer, but further increases need closer monitoring to avoid a decreasing marginal increase. Non-project producers have higher productivity per input but, at the same time, they have much lower yields and total incomes.

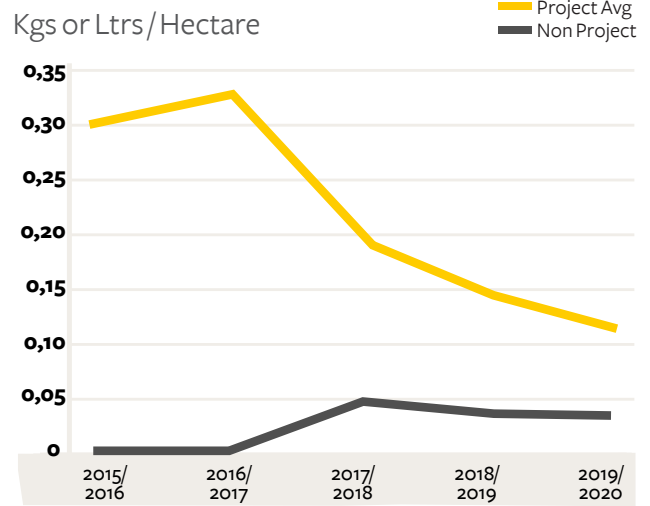
In the case of herbicides, project producers reduced their inputs per hectare and increased their productivity. One of the reasons for this reduction was the preservation of soil coverage compared with the previous practice of clearing all grass coverage. The project proved to producers that preserving soil coverage does not damage productivity. On the other hand, the non-project producers tended to use higher quantities than needed.

Productivity per input unit

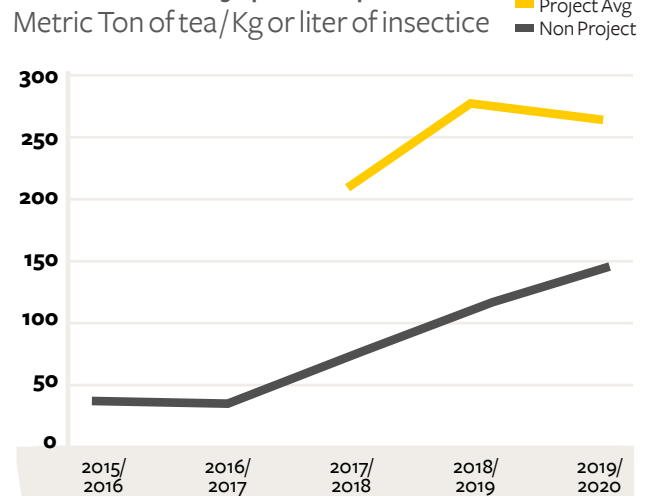


The trend in the use of insecticides is similar. Before the project, most of the producers applied insecticides preventively, even when there was no need to do so. With the project, producers came to understand that the application of insecticides depends on monitoring and the level of risk of presence of insects and/or mites. Non-project producers do not follow a protocol for controlling insects and fail to maintain clear records of applications.

Insecticides use trend



Productivity per input unit



Feasibility and exit strategy





Role of cooperatives and producer associations

There are many signs that point to the success of this business model. Producers now have the knowledge and technical capacity to continue to implement a sustainability model on their farms and they show increased self-esteem. It is certainly more common now than ten years ago to see certified farms in the area. Smallholders and processing plants are more eager to accept changes and to begin implementing new knowledge. The relationship between producers and the processing plant or cooperative has improved. However, sustained evolution will become possible with the continued support of the producers' cooperative.

The role of the cooperatives is crucial to delivering technical assistance, maintaining and developing new relationships with external buyers, retaining existing producers, and handling imports and exports. Through their association with a cooperative, smallholders have access

to inputs such as machinery, fertilizers, and construction materials to store agrochemicals and pesticides. Cooperatives also play an important role in providing access to credit to update machinery, fix trucks, buy a new vehicle, purchase inputs for production and even to buy new school books for their children. In this case, the cooperative replaces the role of banks in providing credit for improvements in production and to cover living costs.

Establishing a capacity for extension by training local technicians who will stay on to provide support to producers is even more important than the initial leverage of support for providing safety materials, pesticides sheds and other items. This initial support is needed to set the wheel of change in motion and set examples for others to replicate once they see the results of the whole process. The return on investment is very high, and farmers are in a position to afford it once they are able to understand its virtuous cycle.

The cycle is completed by the market access possibilities that are open to certified farmers. Certified supply chains are able to reach better markets and start a continuous improvement approach.

Small producers that are not able to achieve competitive performance are threatened in their subsistence, or at least will not be able to progress and create better opportunities for their families.

At the same time, the tea sector needs them to improve to be able to secure future industry flows, as it is a region where tea surface area competes with yerba mate in the decision-making process.



Typical vegetation from the Atlantic Forest biome, Solidaridad

Time needed

The economic benefits associated with good agricultural practices and good manufacturing practices are not immediately visible to producers, workers or business owners. Moreover, the time needed to achieve certification requirements can discourage producers from becoming certified. Nevertheless, based on the experience of the project, it is possible to manage expectations by taking into account the following:



Alejandro Sena
- Local technician

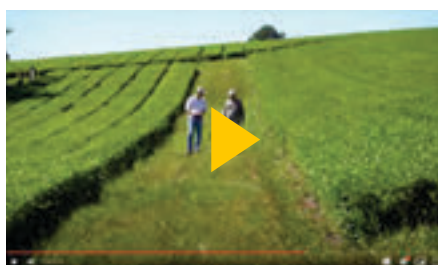


Andrea Berg
- Local technician

“The learning process is long but, on average within the first year, a group of producers can integrate between 30 to 50 percent of the agricultural practices needed to achieve certification, which entails a drastic change in the way the producer manages the farm. Some of these changes have to do with pest management, soil management, and fertilization, which reflects an improvement in production. Around the third year, all the processes are widely-rooted and producers work more enthusiastically because they see the results, but the ideal time frame to achieve long-lasting results is five years”.

“The first changes that can be seen on a farm undergoing a continuous improvement process towards certification are overall tidiness and cleanliness, and having a shed outside the family home to store agrochemicals. Depending on the baseline assessment and the ecosystem that needs to be recovered within the farm, with hard work and commitment from the producer and the field officer, certification level can be achieved within a year, on average. Producers are motivated by the overall improvement of their farms and the increase in yields achieved by improving soil management and fertilization.”

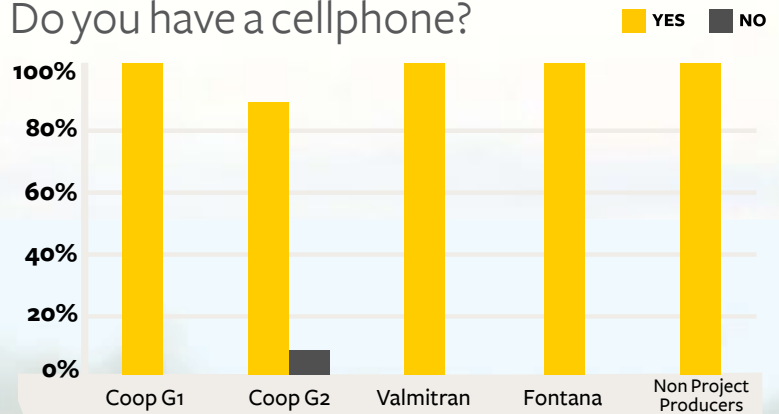
Watch the video: Té Misiones



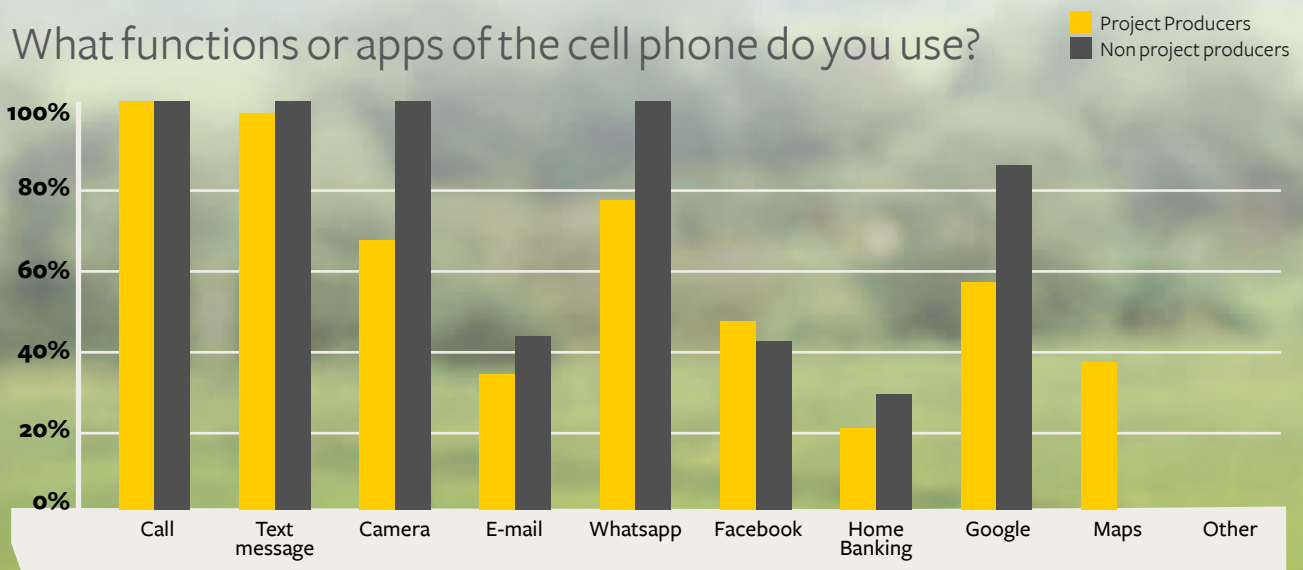
Potential for virtual training

Almost 100 percent of the producers interviewed have access to a mobile device, such as a cell phone. Among the options for communications, the most frequent are: call, text message, and WhatsApp. The high percentage of connectivity shows there is capacity for the design of remote training and strategies for technical support and monitoring through digital devices, which would allow for an increased frequency of contact at a lower cost.

Do you have a cellphone?



What functions or apps of the cell phone do you use?





Lessons

learned



Entertaining methodologies for capacity building, Solidaridad

“The biggest change that I’ve witnessed since Solidaridad landed here is the way in which training is done. We used to invite all the producers into a room and project a PowerPoint presentation on the wall. We would talk, the producers would listen, but there was no interaction. They just listened to what we said, then went back home, and that was it. We realized that it had no impact on the producers. They would understand at first, but then afterwards, they would forget what they learned. So we had to repeat the same training two, three, even five times for producers to really grasp the content. We had to change.”



José Eduardo Moreira
Local trainer,
trained by Solidaridad



Bringing the training to the farms enhances capacity building

The idea for capacity-building was to bring the training to the farms and convene the neighbors, instead of gathering all the farmers at the cooperative or the processing plant. Producers usually live far from the processing plants, so they are not often eager to leave their farms. But at the

farms there are no blackboards, no walls, not even chairs to accommodate everyone, or electricity. Trainers switched to flip charts, banners, puzzles and board games that could easily be displayed in any kind of setting.



“Also, at the farm, the producer feels like a ‘local player’ and is keener to interact. There is more of a back-and-forth. At this point, we realized that we didn’t really need to ‘teach’ them, producers already know a lot due to countless trials and failures. We just needed to show them how to apply that knowledge to their farms. For example, farmers know that soil management is beneficial for them, but typically, they don’t know how to apply it. The main benefits of the games are that producers remember more and put what they’ve learned into practice more quickly. By adapting Monopoly to their reality, we created awareness of how good practices impact the price of tea, helping them see where to invest, when to invest, and how much to invest”.



José Eduardo Moreira
Local trainer,
trained by Solidaridad

Being at the farm, the training was combined with walks around the crop land. Each of these visits brought together between 20 and 25 producers and 2-3 trainers. Here, questions would arise naturally, and the trainer's recommendations could be validated by the producers' experience. This

would foster the adjustment and adoption of good practices.

During the individual technical visits, field officers would then monitor how much had been adopted through a review of the farmer's records and by interviewing them.

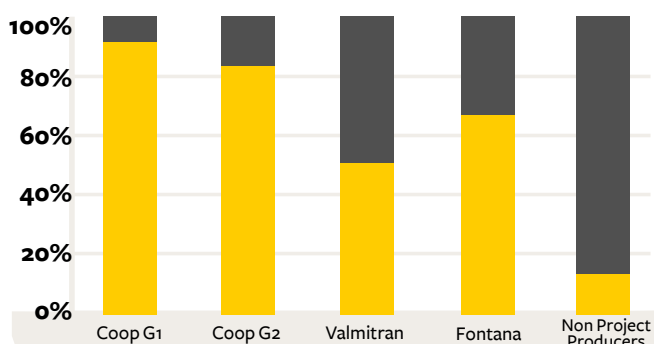
Make sustainability a family matter

Most producers do not hire workers on their farms, and when they do, they only hire them for occasional work (harvest season). A large percentage of the producers involve their families, especially in training activities. Within each family, members take charge of different issues or tasks involved in the improvement process.

The project proved that producers are able to increase their productivity with the right support and the implementation of best practices, adapted to their reality and resources. At the same time, the process is not only possible but necessary, if they want to progress and secure their farm and family future.

Has any member of your family participated in the improvement processes on your farm?

■ YES ■ NO



To read more about the Horoszczuk family farm, click here.

Ways

forward



Further expansion to yerba mate

Since the producers and processors also work with yerba mate as a relevant product, there is a clear window of opportunity for replication in this chain, which has a similar crop management as tea and is slowly expanding to international markets.

Although it was a challenge to engage producers at the beginning, over the course

of the process they perceived the value proposition of the entire certification cycle. Now, even more producers want to participate in programs of this kind. Partners in the project also saw the opportunity to expand the business model to other products in their portfolio, such as yerba mate. At the end of the project with S&D, 479 ha of yerba mate were certified.



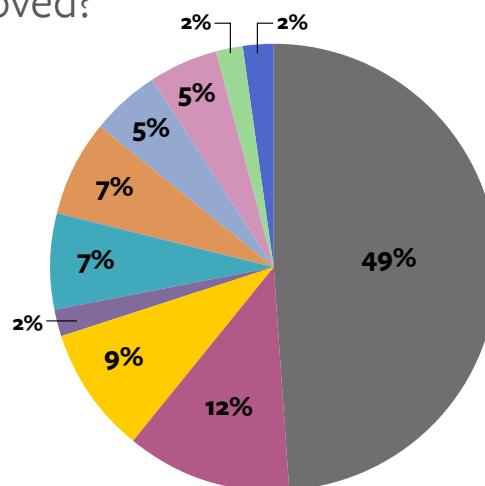
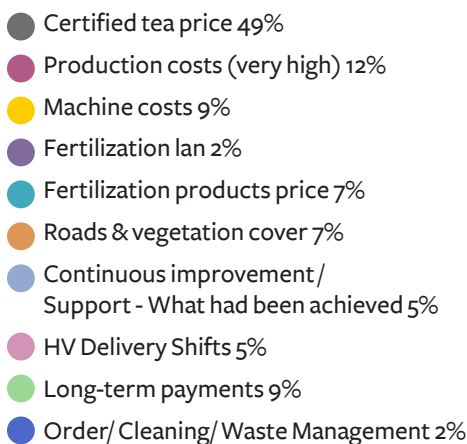
Work on the marketing aspects of tea

While smallholders are seizing the benefits of technical assistance and educational workshops, no producers mentioned gaining an interest in the commercialization and marketing of tea. This could create value from the raw material they produce and sell to cooperative and external buyers through a more sustainable value chain. Moreover, while the tea sector in this region has come a long way through knowledge acquisition, smallholders continue to be isolated from the decision-making process that is related to setting the prices of tea. Whether the cooperative group can begin to help producers add more value to their raw material and have a positive influence

on the price of tea that is negotiated at the national level is a question that cannot be answered at this stage, but the reliance on one external buyer can create the risk of losing market if anything goes wrong.

Although smallholders are selling their certified tea through the cooperative, half of their production is sold to private processing firms, as the market for certified tea is not large enough. The limited market for certified tea was a concern for most producers since large volumes of certified tea had to be directed to the conventional markets.

What things should be improved?



Tea ready packaged for exports, Solidaridad

Work on commercial reforestation

The protection of natural resources should be strengthened in order to maintain good practices and to link smallholders with other projects to encourage diversification. The forest preservation and restoration aspects introduced by the tea intervention present an opportunity to involve these producers in voluntary carbon markets. Shade practices using dual-purpose trees, or the planting of trees in riparian areas are examples of accessible ways of developing new potential income sources for producers.



Work on gender inclusion

A final but rather crucial point to work on is gender inclusion. According to provincial data (2018 census, before COVID) 40 percent of people living on farms are women, but only 17 percent of production units are managed by women.

While Solidaridad's intervention did not actively include this component, all family members were encouraged to participate from workshops and training. When interviewed, they state their role in the farm was mostly record keeping and keeping the farm clean and ordered.

“Sometimes, wives don't want to speak up or get involved. They play an important role in the farm, but some of them are very shy. Training is great and is for everyone, they should get involved. I have a 20-year-old boy and a 12-year-old girl, and now they ask me about the business. We talk about it, we share ideas. It's nice seeing them interested in it”.

Lucía Liliana Muñer





Contact information

Milagros Menna

Programme Manager

milagros.menna@solidaridadnetwork.org

Web: <https://www.solidaridadnetwork.org/commodity/tea/>

LinkedIn: <https://www.linkedin.com/company/solidaridad>

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