**NGO1 - Interview Tecnicafe Cauca - 28-6-2022**

*The interview is done virtually because Cauca is not safe enough to travel there. The purpose is to get to know the context of coffee production in a different area of Colombia. Cauca is also an important coffee growing area, but in comparison to the coffee axis, this region has more issues with violence, drug trafficking and conflict.*

**Could you please introduce yourself and your role in the organization?**

My name is [name], my background is Spanish literature, with a specialization in financial administration, and since 20 years I work in the field of technology and innovation. I worked in centres of productivity, project of technological parquet, I was the one doing the management of that, we wrote the project, we implemented it, managed it. My specialization is knowledge transfer from academics to farmers, and contribute to the sector. In Tecnicafe, I am the entrepreneurial manager, like I said, I work in the technological parque, since we started this idea, to do something to help the coffee sector and coffee farmers.

Tecnicafe is a non-profit organization, an organization that is created by 6 members, including the university, the state, companies and the society. It represents the state, per department, the governor of Cauca is part of the board of directors, the academics is represented by the institute for quality of coffee (CQUI) which is located in the US. We have the private sector, represented by the company Supracafe, which has its roaster in Madrid, and what they do is receive all the coffee produced in their plot here in Colombia and the roast it and distribute it there, and sell it to restaurants and cafes. We also have another company, that develops technologies for the food sector, which is called ‘Multiscal’, also located in Spain. They focus on technological challenges, to develop technologies that coffee growers need to produce coffee of high quality. We also have representation from the Federation of coffee and also Cenicafe. We have the association of female coffee growers in Cauca, which is the social basis, this is an association of women that were victim of the violence, in 8 municipalities in the department of Cauca, and we do with them a project with 150 women, and currently there are about 500 women associated. That is a bit how we are structured. We are the first institute for innovation and technology in Colombia, we received a price last year, because we focus in technology development and innovation, with an academic basis, that develop technologies for the sector of coffee. We are recognized for that.

We were created in 2015, we are now working for 7 years. We have our own infrastructure. We are located in …, like Diana mentioned, which is a municipality that is very much affected by the violence in the department of Cauca. We wanted to establish the parque over there, precisely because of this reason.

We have alliances with research groups that gives us the opportunity to close some gaps in the coffee culture, and one of those gaps is the management of the by-products/residues. Because only 4% of the coffee is utilized for the cup of coffee that you drink, but the remaining 96% is not utilized. The spend coffee grounds, the leaves, the wood, the skin, pulp honey. A lot of things that are not utilized. We are working on this topic. How are we doing that. Currently we are developing

chipboards/carton based on the coffee skin, we develop bloques for construction, based on coffee skin and pulp and a fibre. We are creating a spin-off, together with the university, we already registered the patents, we are creating the strategic plan and technological basis, for the valorization of these by-products. We call them by-products, we need to be aware of the language, we call them by-products or co-products, because they are part of the product. Here we have this development that is important. We have it registered now. The patent is shared by us, the university and the company that produces ‘canabis’ (not really cleare).

Another important development is a project that we developed with a company, also part of Tecnicafe, which is called Pazcafe (coffee of peace). That is a agroindustrial company that buys the mucilage of coffee, and the pulp to develop food. So there are about 7 food products that have been developed and standardized, with the technological university of Madrid, to get the certification. That is all that we do in terms of valorising the by-products and the pulp and mucilage of coffee.

We also have other companies, that also work with, mainly the mucilage and the pulp of coffee. Especially because the pulp is a by-product with the largest volume. We want to know how our coffee growers can best use this big volume of by-products.

**And in all this process, what were the main challenges that you faced in utilizing these co-products?**

For one part, the environmental topic that is very important. Because with the utilization of these co-products, we reduce the decomposing mass, for example. So that is important. On another note, from the economic viewpoint, that is also important for the coffee grower, because all these products like the pulp, skin, if you don’t utilize them well, they can contaminate. They put it on the same fields as where they grow the coffee, but it is not a good utilization because the contaminates. And from the economic viewpoint, it would be good if coffee farmers could sell this mucilage, and cherries to transform them.

**How is the cultivation of coffee in the region where you work? Is that similar to here, where they produce the coffee and do the ‘proceso de beneficio’ (fermentation, depulping, drying etc) in their own plots and then they transport it to the association or cooperative? How is it organized?**

The majority of Colombian coffee is produced in the same way. But we are working with the coffee farmers to change some things, so they produce coffee in a better way. Why, because our focus is on high quality coffee, and we need to have some different processes and protocols. So we work with the coffee farmers to adapt better practices. They do it, with better practices, more sustainable. And we work a lot on food security, how can they manage plots with shade, so it is more sustainable. And also with technical elements, so they can produce coffee in a better way. The processes of fermentation are more controlled, because our coffee growers did not have good practices for the fermentation of coffee. So we helped them, because the process of fermentation is very important for the quality of coffee. We also work on the topic that they establish direct commercial relations, so they don’t need to do transactions with intermediaries. And to do that, we developed some strategies, a virtual platform for example where we organize virtual coffee feria. Via this platform, we could establish direct commercial relations. That helps to increase the income.

**In what way do you work with the coffee farmers, because you said that they changed their practices and improved it, how did you do that?**

We received resources, national and international, because you need resources. With the womens association, we started to map what are their necessities, in technologies, infrastructure, equipment etc. We defined those needs and started to work with them. We also wrote some protocol about good practices and established field schools, 30/40 persons would come to Technicafe for a few days to learn about this. And there are also technical assistants that go to the field and assist them there. That is another process that we do. We help them to maintain the certification that they have, which is not easy. In addition, we also offer cupping, they can come with their coffee so we can take a look at it and we promote their products so it reaches more special niche markets. More people are producing specialty coffee because they realize that this is really paid better. And we also assist them with these projects to utilize the co-products.

**Yes, and could you explain a bit more about these projects that you do with the residues. How is that organized, how do you collect them etc?**

Well, in our plot of 120 hectares of coffee, one part is only organic coffee, you can use the pulp and mucilage. So in our central collection point, where the coffee is processed, they also collect the pulp and mucilage. They bring it to the laboratory and then we prepare the products. There we do the preparation.

**Ok, so that is a pilot project that you do in your plot of 120 hectares?**

Yes, but we are creating a company so we don’t only use our plot, we also want to incorporate other plots. We are doing studies right now, and we look for collaborations with other industries that for example can provide the coffee skin. That is why I said that we are now making the strategic plan with them.

**I also understood from Diana that you also work with people that used to be part of the guerrilla and are now incorporated in the coffee sector. Could you tell a bit more about this project?**

This is a project that we are collaborating with the national government, with the association for normalization (IRN), which is the organization that is in charge of the implementation of peace in our country. They did an identification of all the combatants of the FARC that wanted to work in the coffee sector. And those that were interested, came to tecnicafe for a period of three months, to learn, so they were able to start their own projects. We did this in 2017, and last year, we helped, with support from a Spanish alliance, to strengthen the cooperatives that they have been creating in the country. So they created about 30 cooperatives in the country, and last year we created a federation that unites all these cooperatives. And with that federation, we are doing all these projects here. These cooperatives are located in 9 departments and they have 1200 coffee farmers associated, that used to be combatants, and they have an important production of coffee, and we assist them in establishing direct trade relations, and we make sure that the coffee they produce is of high quality. That is the project that we have, we now 30 students that are in the process of reincorporation, how we call it. And they focus on the whole process of coffee, they get assistance to invest money to buy their own plots. We do the knowledge transfer for this group of people.

**Are they also involved in these projects that you do with the co-products?**

Yes of course, one of them created the company of PazCafe. That was one of these students who liked this topic. And in 2019 the company received a price as one of the most innovative companies of youth. We have different ex-combatants that are involved in different steps of the coffee value chain, one of them exports directly to Spain for example.

**You also said that there is an association for women. Why is that created, especially for women? And how would you describe the position of women in the sector?**

They did not have a good representation on national level in Colombia. This is the first association of women in Colombia that is 100% from women, and export internationally. Associacion Caficulturas AMU, they started this group in 2015 with 134 women, but now we have 500. The topic of gender is very important, they grew in the sector. They are now for the first time in this process, of national representation. Before, the women were not really represented in the coffee sector. On the level of production, women have a special quality. They always harvest the red beans, not the green or black ones, like the men do more. When you know the coffee is produced by women, you know that it is of good quality. Now there are women that are specialised in the production of Honey coffee, which is different from the lavado or natural. And they search for niche markets.

**What do you consider the major challenges in the sector?**

Oef, that is a broad question. There are many challenges, one of them is the reduction of costs of production. Because the coffee sector currently is not sustainable, the costs of production need to go down. The inputs are very expensive. Another challenge is the infrastructure. There are regions that don’t have access to electricity, and then it is difficult to do a good proceso de beneficio. Another one is technological improvement, many coffee growers have the same depulping machine for 100 years, and sometimes that machine has a type of paint, that has lead, and that will affect the coffee, because coffee is like a sponge. A technological challenge, these machines need to change. There are also environmental challenge, for example to grow coffee with shade. Those are all challenges to develop the sector further.

**Ok, and for example this technological challenge, the old depulping mahcines. What is preventing the improvement of those machines currently. Why are they not replaced?**

It is not changed because the costs of those technologies are high. But us, as Tecnicafe, we collaborate with engineers who developed a new depulping machine, which won’t affect the beans. We presented that in the US, in a feria. What we do is this, we see what the challenges are and look for solutions, together with our partners to develop new technologies. We also developed an app that help farmers with the planning and management of their crops.

**Now I would like to show an image (*explanation of the Biohub infographic*). What we would like to understand here in our fieldwork if it is possible to organize a system like this and in what way this could be organized in this context, so it will be beneficial for this region. I would like to ask you, how do you see this concept and what kind of benefits could this generate?**

All that that can be utilized as biomass is interesting. For example the spend coffee grounds, that is not utilized right now. Of course, the generation of energy is something we have been developing as well, for example use the coffee skin to generate energy and heat. Also the topic of water, we have a project on the treatment of water. I think, what you are proposing is very viable and complementary to what we are doing in Tecnicafe.

**Ok, and you said that in some communities there is no access to electricity, is that is challenge in some communities?**

Yes, in our department, there are 10.000 families that don’t have light. So we can convert this into an opportunity. We are working on a project to develop alternative energy, for example solar panels. We have been trying out 2 types there, to see which one works well there. But I don’t know, I am not a technical expert. But this is a challenge for those families.

**What obstacles do you see to implement a system like this is your region?**

We need to do an analysis of the costs. The families in these regions have a very low level of income. These type of projects can reach there, but it need to be managed by municipalities, institutions or international partners. But I think that is the only project, because this search for alternative energy is important and a lot of institutions are looking for it.

**And to implement this Biohub, or new value chains based on the co-products of coffee, do you see obstacles? To develop new value chains?**

Yes, there are some limitations, for example the logistics, the collection of biomass. There need to be adequate system of logistics. Because this material decomposes very quickly. You need to revise the logistics very well. But that can be solved by having central collection points, where also this process of beneficio is done.

**Does that already exist?**

Yes, we are implementing this currently in our property, together with some farmers here in the area. We are finalizing this right now, to solve this logistic issue. To have one truck that collects all this and bring it to strategic points. To optimize the management.

**So, the logistics is a limitation. Do you also see other limitations?**

The adaption to good agricultural practices by the farmers, if they don’t do that, it will be difficult to organize this. That is a limitation.

**What is necessary for those farmers to adopt good practices, what do they need?**

Fields schools, where they learn this and this knowledge is transferred.

**Do you also see a role for Tecnicafe in this kind of system or new value chain?**

Yes, in the department of Cauca and in Colombia, we have been pioneers in the utilization of by-products. We have our company, with Spain, where we produce food products from the coffee pulp. We export that to Spain. Yes, we have worked in this, and yes, we have a fundamental role in the development and innovation of new technologies, to manage these by-products. I forgot to mention this, but with our company in Madrid, what we did was, they did an analysis of the pulp of coffee and they converted this in tea. And the sell this on the market, and it is commercialized there. One box of 70 grams, is 4 to 7 euros, more expensive than the coffee itself.

**And this spin-off, is that for the construction blocks?**

Yes, it is for 7 different products.

**And for this, you also use the pulp?**

Yes, the pulp, and the skin.

**We also want to understand the different actors that have a role in the sector, and how their relationship is between them. (show and explain the power-interest grid). How do you see this grid and the position of the actors, do you agree with these positions or should we change? And are there actors that are lacking?**

There are some very important actors, like the national government and the municipalities. I don’t know where the federation is.

**Here, we put it with high power and also high interest. Do you agree with that?**

Where it says Fedecafe right? Ok, these are all important actors, and there are more, for example importers of coffee, apart for the cooperatives or fedecafe. Exporters have an important role. But, where are de providers of inputs, like fertilizers. Where is Tecnicafe?

**Yes, that is lacking right now. Where would you put Tecnicafe, in terms of power and interest?**

Interest is high and I think power is also high, because we can make innovations. And innovation and transformation based on research.

I think that the actors, I am not very familiar with this grid, but within the sector of coffee here, apart from the exporters, the roasters, baristas, technology providers and providers of inputs. They have a real input, they determine the prices.

**Ok, thank you. Finally, I have a question about the technologies that you are researching. What are the technologies that you are currently researching, or innovations you are focusing on.**

In terms of innovation, we focus on fermentation. That is crucial. We are working with some new varieties, trying out new fertilizers as well. We work on the development of new technologies, like this new depulping machine. We are working on the developments of apps, there is an app on coffee harvest insurance (seguro de cosecha). We are developing apps on the planning of the sowing of trees. We work on the development of new alimentations, together with SENA for example. We want to work on gastronomy based on coffee products. Those are some example on the projects we do.

**Thank you very much, those were my questions. Thank you for your time. Is there anything else that you would like to share?**

No, we are also working with youth, with the two generations. How the children will be involved. There is an important renovation in the coffee sector, the youth have a different level of development than their parents and grandparents. We want to provide them with more tools, so they stay in the field. And that they specialize in one aspect of the coffee value chain. Some really like this aspect of agriculture, others of transformation or barista. They like the commercialization of coffee. There is an important focus of us as well. No, I want to see that we as Colombia have a very important position in the coffee sector and specialty coffee, there is a niche in the market for Colombian coffee. I think it is important that students work more in real cases, and not in imaginary things. If they do that, they can play a very important role, or provide an important service to the country, develop their research and make bridges to the real world. I think the universities have important roles. And what is important, how this information is used to develop the sector. We are grateful for this opportunity and we like to work with research groups from universities. We want to be part of these kind of interesting projects. We know that we can assist in these kind of projects.

**We are organizing a workshop in the end of our fieldwork where we unite different stakeholders that we interviewed and we want to discuss different options for value chains together. We want to invite you as well, it is 28th of July. You will receive a more official invitation.**

Thank you, we would like to participate. Also thank you Diana, for this articulation process and to be part of it. If you have more time, you are welcome to come here and see our processes. We are proud of our work.

**Thank you very much**