**B1CC - Interview chocolate producer Santa Rosa, 32 - 25-6-2022**

**We can start with a small presentation**

My name [name]. I am 32 years old. I have been working with cocoa for approximately 9 years. We have started a process that is linked from the beginning with the university as thesis project. I come from the university of Pereira. I am an industrial administrator. We started the process at the level of industrial technology, together with other partners but currently there is only one left in this project which now is a personal one.

**You said you come from Belen. Do you come from a family that produces cocoa or why are you interested in this?**

No. I am from Belen and I lived there approximately 11 years. That was where I started the process in the university and where I met my partners. My family was not a cocoa farming one. I have a coffee growers’ family, a normal one around coffee growing culture. We started in cocoa by coincidence. It turned out that a partner knew a man who knew how to process cocoa in an artisanal way, in his kitchen. 2 or 3 pounds of cocoa. He would do it with small quantities. He said he knew about it but he would have liked to set up a company or something else. So my partner told him we were studying industrial technology and that maybe the knowledge we had could be useful for him. That’s how we got to the point of making an agreement. He would teach us how to transform the product and we would seek how to formalize the process. That’s how the association emerged and it is still ongoing, the Belen de Umbria producers’ association. We started with 25 people. Belen de Umbria has not been recognized as a cocoa growing municipality. It has never produced cocoa. No one knew a thing about cocoa. And that’s why I say that we had to start at -1 because we had to investigate everything. The people that started together with us did it out of our pure will. We didn’t have crops. There were people with 2, 5, 10 trees at the edges of their plots but they didn’t take care of them, they wouldn’t transform them. Nothing around the topic, they didn’t know about it. Because Belen de Umbria comes from a totally banana and coffee growing based culture. So we started to invite them and ask them if they would be interested in planting cocoa. Because we had the weather. We investigated first the weather required for cocoa, it requires warm weather, it doesn’t grow in cold weather. So with the issue of global warming, there are people who got interest in planting cocoa because they were saying that coffee was not producing the same anymore. The marginal areas that were not being good at coffee anymore wanted to transit towards cocoa. That was something of advantage to us for people to get more interested. For them to have an alternative aside from only coffee, which was no longer being productive in addition of the coffee prices being terribly low. Therefore, we started with that. We started to manage project, the first of them was the 266 with the CENA and Fedecacao. Fedecacao is sort of the coffee growers’ federation but for cocoa, exclusively. So they provided us with support. They gave us the first 600 plants for each of those 25 producers, which was the first project they had, and we have been hand in hand with these entities. The CENA started to train us. We made groups where they would teach us from 0 the issues related to the soil, the caring, the handling, to learn from a crop that we were ready to plant, for which we had the association but we didn’t know how to deal with. All of these projects were managed, we started to plant trees, and we also started with the idea… I mean, the original idea for the project was to plant cocoa in order to sell chocolate. We didn’t want to only sell cocoa in order to sell cocoa because we know that a product success is in the agroindustry, in bringing an added value from wherever. So we obviously got into transforming it without knowing a thing and that was also a learning process, about burning cocoa, about putting your feet in all that there is and has been, in which we went through people with whom both good and bad things happened. [name] over there went through some of them. We experienced everything, regarding money, regarding personnel, with the crops. Sometimes bad trimmings, crops that had damages. Everything could have happened to us in a process we didn’t really knew and weren’t sure where it came from. Everyone was telling us we were crazy. That we should have got into something people knew about. But if we don’t know something, we don’t investigate, we don’t find our ways around, we would never learn. And precisely, we started with the process and we managed to develop a product for them, similar to this bar I have here with everything. The Invima, the branding, the product design. It was ready with all the process. It was a work developed for more than 5 years in the association. Everything was a social thing. We never charged a single peso; we never did anything. All the administrative area, we were in the administrative board all of these years, in which we managed not only these projects but we also managed production alliances for almost 1 000 million pesos. We managed a project for almost 300 in fermentation units and drying units. Which you will be able to see this week when you go to Juan Carlo’s. There are two boxes and two drying units from that project. We wanted to standardize the project for everyone to have the same type of fermentation equipment so that the conditions would be similar and the same went for the drying. Because it is a fundamental thing for the final product. Because we are not adding any process that could mask any defect. Therefore, if the cocoa coming in is bad, the quality will be bad and there is nothing to do about it because the industry masks it with cinnamon, fragrances, flavors, sugar, and we didn’t want anything like that. We always betted on the natural approach. More about the earth, more organic. And that is what we wanted to do.

**So it is organic or do you use fertilizers?**

It is partially. It is an agroecological cultivation. It is considered agroecological because they can’t fumigate. The cocoa pollinizers are not bees, sadly, because one would be able to take a beehive and… but nothing. It is called forcipomya and it is like a little mite, or a little mosquito… What characterizes the forcipomya? Like a mite or a little mosquito. It is a small animal which is the responsible for pollinization. It is extremely delicate. So if you fumigate with anything the harvest goes down. So they can’t fumigate. Only in the growing phase. You plant it and you can fumigate until it shows that it is about to flourish. Until that moment. If you then fumigate with anything, the harvest goes down. So from there on, after the up-bringing, only sculptural labors. Although it is possible to do it organically, considering that the production would go down up to a 50 to 70%, if it is left without fertilizing. Because it is extremely demanding. It generates a lot of demand and therefore it requires chemical fertilization but only on the soil. Only to the root. Nothing else. There is no fumigation. If a tree gets sick it gets trimmed. A tree best friend is the scissor so if you cut the cob, the cub is the fruit. I don’t know if you already know something about cocoa, if have already been…

**Yes, we went to Fedecacao.**

Oh, ok. So, if the cob is sick, before the rest gets sick, because there is an issue with these fungi disperse fast through the crops, then you cut it and bury it. If there is an arm that is sick, that is dying, cut it and bury it right there at the plant because in addition to fertilize, if you do these labors, if you are wise when trimming and keep the tree well aired, well lighted, with good soil and good warmth, it will behave very well. It is agroecological because the trims themselves, the handling, is not… no. Nothing compared with coffee which needs to be fumigated often because of the drilling bug and such. We can’t fix anything with fumigation. For it, it is only cutting and burying. This is way easier and more friendly with the environment. You need a regulated shading. When the crops are stabilized it is only about weed handling with the leaves themselves, that fall to the ground and decompose, weeds are less frequent, they become noble weeds, and it is all done naturally. So it is a crop that is bringing a lot and is bringing a new alternative in Belen. We started with less than 2 hectares with everything we had there in Belen and currently there are approximately 90 to 100 planted hectares, due to all the projects we did in those 5 years.

**90 hectares?**

90 hectares, yes. One hectare has, in average, 1 111 trees. Maybe a little less, a little more, depending on the seeding system.

**So the producers previously cultivated coffee? And now they only cultivate cocoa?**

No. No. They have as an alternative crop. They have it as an alternative crop. Doing the total transition… it is a crop that is planted and only three years in it starts to produce. And usually the whole coffee growing culture… but they did leave a space in their plots, they planted a hectare. There are producers that did got really into it and have more than half of their plots and even some that are doing the total transition to cocoa. Therefore they are starting with that change because it is something relatively new. It just started 7, 8 years here in Belen de Umbria. The first harvests are only in the first years, the process is being stabilized and because of that they do need more time to do a total transition. Usually people won’t buy a complete plot just to plant it only with cocoa. No. Let’s leave some space, lets change, when we cut down that area we plant more there and they start to alternate. Or they might have alternative crops. And the ideal, what is recommended in the area, is to not depend on a single crop because if the crop gets sick all of the harvest is lost and then what are we surviving on? No. Then in the crops there are bananas and bananas are sold every twenty days, there is coffee and when there are harvest and when the coffee price is good, like around this time, they go by it. Cocoa goes down a little… So the idea is for there to be food security where not only the large crops cultivation, but also the small vegetable gardens, become a more integral matter. This week, when you go to the plots, there you will see other crops. There are bananas, there is no coffee but in other plots they do it by having many alternatives.

**Do the farmers also do the fermentation and drying processes in their own plots or they do it other way?**

In the plot, yes. At some point we thought about doing a recollection center to do a more unified fermentation but it turns out that because of infrastructure, the municipality is not ready for something like that. The towns are very far away, the transport cost is very high. So in terms of costs it is not very viable for everyone to take their product to the municipality’s capital or to a single plot and sometimes, when they are starting to produce, they only have half @, one @, 2 @s, 3 @s… And those costs don’t allow for the producer to end up with any income. That’s also why of the project that I mentioned before on the small fermentators. They are small containers that allow to manage around one hectare, which is what the farmers have. These containers… because all of them have the same we will end up with something similar, they we all taught the same on the topic of fermentation. Depending on the weather. The hotter, the less days. The colder, the more. Each producer gets to know the product, they know when to take stop fermenting it, how many days it need to dry. In that way, we have tried to standardized the process, too.

**What are the residues that you produce in your whole enterprise’s chain?**

Well, during farming, the trees have two trimmings a year and depending on the trims done for handling that the plant may need. But in general it is two large trims needed a year. Two or three. That depends on the weather. When it is summer, the bush grows a lot and it needs to be trimmed. The trim residue. The trims are large so firstly, trims residue. Then, the harvesting residue, which are the outer part of the cobs, which we call pectin. Following that process there is the lixiviate. They take out the fruit and ferment it. These fermentations drip a liquid and that liquid is lixiviated, which is also a residue. The coffee is not washed, compared to coffee. You have to wash coffee. Not cocoa. If you wash it you have to throw it away because the cocoa sweetness… did you try it?

**Yes. The white part? Yes.**

The mucilage, is what it causes it to ferment and it is what gives the final quality notes. Then there is lixiviate. They start to ferment and to drip. That liquid drips and they have actually done research to generate products from that lixiviate. After that process is the drying process and then it goes into a roasting process. From the toasting process there is some breaking and it yields the *cascarilla*. The *cascarilla* is what covers the bean, the grain, that is inside. That cascarilla is also a residue and we have tested doing flours for bakery and for livestock feeding. To mix it with other types of feedings. That is the final residue because from there on we have the handling of the grain and other processes but it is up to the cascarilla where there are residues.

**What is that you do at this time with the residues?**

The residues stay at the farms. The trimming and harvest residues. In the plots they are doing composting. They throw it into a tank where it will compost and then the soil generated is added to the crops themselves. But usually, they merely leave them at the plant itself. You harvest and they remain at the crops. They decompose and go back into the soil, as fertilizers for the soil. And that is what is happening right now, because no one is giving an application to those residues. And the cascarilla is what we are left with from the transformation and it usually goes to the trash.

**To the trash.**

To the trash, yes. Because, in reality, there is nothing standardized. A product that could be done out of that.

**What do you consider the main challenges in the cocoa and coffee sectors? Because you also have knowledge on that. What are the main challenges?**

There are plenty. There are plenty and also at different points of the chain. There are some that you might say that are outside of our hands and it is the climate issues. The climate issues are giving us a hard time and not only in that but also with other crops. Last year we had a maracuja farm that was very beautiful but winter arrived and it was totally lost. Its roots rotted and it was a total loss. In some things the issues with climate change, together with the fact that here in Colombia the supplies required to counteract a little the effects of the climate change are rocket high. We also have in the plot some banana cultivation and at the time when we calculate costs, we realize that well, with the fertilization a bag of the most expensive fertilizer is 80 000. Let’s say that it will get extremely expensive and it will be 100 000. In our costs it was expensive and it was 100 000. Right now it is at 250 and it has reached up to 280 000 pesos. So things get rocket high and we don’t know what to do with these costs. Supplies, the workforce, maybe… I know that the area of workforce is more complex with coffee than with cocoa. In cocoa, a single person can attend the needs of a hectare of coffee plots while for coffee the amount of people is way higher, it increases with the topography which is complicated in this region, so you need of many people to attend a hectare and at the end it all adds up and the costs get out of control. Cocoa is little more friendly with that because a single person goes and pays attention to it, does the trimming, harvests… Cocoa lasts way more at the tree. I mean, you leave cocoa without harvesting 8, 15 days and absolutely nothing happens. After 15 days I go to harvest it, and there is no issue. But with coffee, if the harvest is here and I didn’t pick it up, it ends up one the soil and it generates a new problem with the drilling bug. And in top that the harvest was lost, it falls down and it creates a new problem with small insects that will later harm the rest of the crops. So it is very complex. The workforce is a very complicated topic. There is also the issue of the generational takeover. In Colombia it is terrible because people don’t want to be in the fields. The first thing that parents tell their kids is to study so they don’t end up doing there, so that they don’t do the same that they did, to have a different opportunity. The ones that grew loving the country side is because we love it and we want to do that because of love for farming but truth is that, here, the generational takeover is very complex. Also the topic on the culture around… the majority of us are adults, older people, when we go in and tell them that we need to technify, we have to transform and prepare the product. We have to be very careful with the harvest, we have to ferment for so many days, we have to take it out in a specific way. Don’t mix the sick and the healthy cobs. When you try to tell them to be careful because from this final result depends the product we are going to consume, it is a food, we have to be careful… We have found the cocoa at the worst possible conditions with chickens lying on top of it, with the dog lying on top of it… It is very complex to go in and tell the producers, to the farmers, to please be very careful with the product because from it depends the rest of the process. Since we started the association, and now I implement it in my product, is that we want fairtrade. First, we want to eliminate intermediaries and secondly, we want fairtrade. At this time, for a coffee to be in the market at 80, 85 000 pesos it has to be a very good cocoa. For them to paid 85 000 pesos. The average is at 80. I’m paying it at 110 000. I know that right now it might not be that much but it is a difference for a farmer that is earning 15 000 pesos more if he sends it to me. But I have to pay attention on how careful he was with that cocoa. That has been an incentive that has worked for me to go and say “Let’s see, Mr. Favio, I’m going to keep the price, doesn’t matter that the price is lower”. It is wise. It has worked for me because he knows that if the cocoa is good, I’m going to pay way better than what it is in the market. There are many companies that are not used to that and are used to commerce and commerce buys whatever. Because they are going make industrial mixes. They will add a thousand things to mask the flavors, and they don’t know the contaminants and the risks there are. That topic on a cultural change has been a process of many days, teaching them “Mr. Favio, look, the cocoa was ugly. Mr. Favio, check this”. And talking to them. And talking to them. Check, check, check. But, oh well, with a lot of patience since it is a long-time issue, around the post-harvesting culture. Obviously, for them to learn on a new crop was also a process. “Pay attention to the trimming. Look, you need to trim. Look, you need to fertilize”. That was also a process.

**How did you do this? This process.**

This process, well, regarding the association, this process was collaborative. We had constant meetings and there was technical support from the municipality and productive alliances. Productive alliances provided a technical advisor, an agronomist, who would do constant visits. “This week we have a visit schedule with you five”, so Monday one place, Tuesday another place, Wednesday to other place. He would go and tell us the tasks, the trimming. He would teach them and explain them “In 20 days I’ll be back”, and he would tell what to do. “In a month I’ll be back”, and he would tell what to do. There are people that slowly got used to it. It hasn’t been accomplished with everyone but we have achieved thigs, there has been important progress. Now that I transitioned to my personal brand, it was a very big benefit because I already have partners who are very wise, they have good crops, they properly do their processes. Without knowing it I was working on an area that would be beneficia for me in a personal matter. But still, I want to always pay them properly. Not because in the market the price is 80, I will pay 5 000 more, 2 000 more. No. We have acknowledged it. Their work is very hard. Working on farming. It is super hard. So I aspire to, when this grows more, pay them better. Do it better. The challenge regarding farming, the post-harvest. The transformation area. That’s where I come in because when we have had all the processes with them, that’s when I decided to create my own project. I couldn’t present it by the association because when I graduated, they told me that in order to get access to entrepreneurship funds I needed to present it as a *natural person*, present it yourself. I did associative linking meaning that I would only work with cocoa from producers, from associations, directly with the farmer. I won’t buy to intermediaries, no. Directly with them. A lot of it I pick it up myself at the plot? Why? I’ve always been really focused on the social topic. I want to arrive directly to the beneficios, directly, without intermediaries or other things. And in reality, a little thing that could be useful for them, because I also know how it goes for them. Already in the transformation process, which is directly my thing, there is not much people that transforms it, when I need a *maquila*, because I still don’t have the machinery… The process I currently have with the *Fondo emprender* was not enough to buy all the line, all the coca line. The machines required to process cocoa are extremely expensive, they are scarce, very difficult to obtain. So you sometimes have to delegate the process. I provide the cocoa; they extract the liquor and they hand it to me. Then I go and do the rest of the process. I bring them cocoa; they do the cover for the chocolate. I make the formulations, package them and I’m done. *Maquilas…* No. I dream on the day when I can have the complete circle, the machinery, to do this process. Because there is a lot of demand. There is a lot of people who want their product to be produced but there is no one to do it. On top of that, regarding agreements and delegating is complex. I would like to control all the value chain but it is very complex and very expensive. So, regarding the area of transformation… yeah. Commercialization is improving significantly. The area of the culture on good consumption is also improving, maybe together with the subject of specialty coffees. Here in Colombia we drink any coffee *unintelligible* water with coffee. When we started to learn on coffees from origins, good coffees, coffees that you know… one might drink a red seal coffee and a coffee from here, and now we know the difference. We wanted to make the transition together with coffee and that’s why one of my products includes coffee. To go together, hand by hand. They are two products that perfectly link together. We have taken advantage of that culture. That’s why our main niche is to get to the specialty coffee. To have a specialty coffee and next to it a specialty chocolate. People is a little more aware. People has been learning more about responsible consumption and that this product is providing a benefit to the body. That it is natural, that is comes from the earth. That it comes from a process that, compared to an industrial product, won’t harm them but it will be beneficial for them. We will take advantage of all of these benefits to open the way to more of these products. Because it was the same. Here the most common product was Luker. And not they have started to identify the difference between an artisanal chocolate and a Luker. That part is going well.

**Where is the market? Here in Colombia or do you also want to…**

No. In Colombia there is an interesting market. Not that big because people… While my product costs 5 000 pesos, a commercial one is available at 3 000. There is a 2 000 pesos difference. So the average person rather goes for the economical one to save. And all the prices here in Colombia following all of the crisis that have happened and the pandemic, they go towards the economic one. There is an interesting market opening on the natural consumption, on the aware consumption. Good. But we have total awareness that the product’s success is exportation. I see a future where I sell it outside. Taking out to other markets where that culture already exists. Where they value the strongest cocoas. A good chocolate, a good cocoa. We believe that it is in exportation and there are small steps we are preparing on in order to export it and take it out.

**What are your *Alianzas productivas?* Is it an organization or…?**

Alianzas productivas is a project from the national government. It is only for associations, so I can’t go into it but the association I was part of before was able to get access to it. It is an alliance, like its name says it, of different sector that provide resources to benefit a significant number of people. The largest the association and number of people being benefited, the greatest the impact. Regarding the association, The money was provided by government, the municipality, the ministry, and different entities that provided the technical aspect. The Acarde, the CENA… So they would provide training, they would say “my contribution will be teachers, analysis…”, while others provided money and a common bag was formed, a trust, from which we would say “The purchases are these, there are committees, there are technical aspects”. We did all of these governmental processes and we were able to gain access to supplies, materials, trees. We hired a nursery, we hired support staff, we hired an agronomist for a year. That was the *Alianza productiva* where all of these resources, almost 1 000 million pesos, allowed us to expand on the crops.

**So it is something different to associations but Alianzas productivas work together with associations?**

Exactly. It is a contribution of different governmental sectors, all of them, to provide associations with no aim for profit, where there is a lot of people involved. When you pass on to be an independent producer… I have an associative alliance with them for them to sell me their product, but I wouldn’t be able to access to such a project, because they seek high impact for a large community.

**What type of contract do you have with the producers? Do you have a fixed contract or how…?**

Since we are starting with the formalization after the Fondo emprender and such, we have a verbal agreement. It is an issue of trust, because we’ve known for many years, they know the process. But the idea is to stablish a commercial link directly with them. We’ve already told them to process their RUT, prepare because we are going to sign a product sale agreement. That will be done following the formalization of the company. We want to do it for organizational matters and also to reassure them but the relationship with my producers is based on trust, from many years ago.

**I would like to show you an image. This is the concept we work on, called the Biohub. It is a cluster in which we can organize a new value chain to produce biofuels from biomass. The idea is that, here, there are different communities that generate biomass, which is not currently being used, that could be transported to a biorefinery and it could be transformed into different products such as biofuel but the same process also produces biocarbon, to be used in the communities. At the end it can be sold to different markets, for example the maritime sector. What we want to understand with our research is if it is possible to stablish a new value chain and how can we organize it so that it is also beneficial for the communities here. And we also want to understand what are the challenges that there could be. Here I have some images. There are different residues being produced. This is a conversion fabric. It can produce biocrude and biocarbon and at the end, from the biocrude, biofuel can be produced, bioplastic…**

Cool. For me the topic of single use takes away my peace of mind. I can’t live with that. It is awful. Here the biggest challenge with this, if you wanted to implement it here in Belen or specifically in Colombia, is the logistics. The logistics of taking the residues from the plots to that place. IF you solve the logistic issues the rest of the plan is very

The issue is the logistics of how… How do we fix the issue so that it doesn’t represent a new cost for the producer. That’s an issue in Colombia because of the access, the roads, the distance. There could be two hours between rural towns. That is a big challenge for this. But it is a wonderful alternative.

**What opportunities could this system have to…**

I think there are many. Firstly, the energetic subject at any sector is tremendous, for me. The work alternatives. The work generation, here in Colombia, is something that creates a lot of expectation. Even more now, after the pandemic and this important economic crisis. Taking care of the environment. That is imminent, obviously. Opportunities related to people… I think that goes together with them learning, the change of mentality is very important. Between people understanding more how does this work and what are the benefits. And it doesn’t have to strictly be economical ones. The thing is that, here in Colombia, there is a culture in which they only care about what is it that they will get. We had problems with people handling because they would only come to see what they would get. If they would get the trees for free, if they would get everything… There is an impressive mentality on what they will be given and it is always the economic. But I believe that when they start to understand that if they don’t take care of the earth, where else are they going to produce? If they don’t take care of the wind… Everything is a whole and they have to coexist between themselves. For me, that culture and mentality change is very important for all of these processes. To come and teach them and explain them and make them realize the benefits, it is very important.

**You said an obstacle is transport, the logistics…**

The logistics. We analyzed the matters of logistic a lot. I don’t know if you were in Belen. In Belen there is a center, for coffee. Dianita, sorry. Are you going to take them to Cuchilla? To the center? Oh, ok. Then there you will be able to see how would it work with those logistics. All the problems… In the middle of the university I did an analysis of the whole process they do, many years ago. It might be that nowadays they have improved since I’ve been out of Belen for three years now. Their logistics, although obviously they would take it together in the route and all of that. You have to see the difference between the coffee volumes, which are huge, way more, and the cocoa ones, which might only be kilos, might be @s, because they are just starting. The coffee loads they take are full, loaded, and if you take more product the costs will reduce but if you take one lump and it costs me 8 000 pesos, 5 000 pesos, to get down the lump. The route’s schedule. There is only one route and it comes down at 4. It arrives to Belen at 8. So that organizational issue is a significant challenge. Can it be done? It can be done. And that process’ handling is very interesting because for it to not be too expensive, it can be achieved.

**Do you see other challenges or obstacles for…**

At the plots. As I told you, if I can manage a cocoa hectare with a single person and on the harvest day, I generate 200, 500 kilos from this process, with the increase on the workforce costs, because no I have to collect these residues that I usually would generate and throw away, now I have to collect them in a single place. Now I have to take it, package it or whatever, and take it to a place and if a car is coming to pick it up, if there is a route to pick it up, then for them to come and pick it up I have to take it there, then plots will say that it increases the amount of work and it increases the costs with one more worker. In farming they are very stubborn that if it increases the required workforce or time, they might say it doesn’t work for them because it becomes too expensive. This process might be successful only after there is the workforce and the usable residues. You might say, they want it all. Cocoa and everything, complete. Then I produce the cocoa, I produce everything. There is a good cocoa price that covers these costs or that is being paid aside… I always thing a lot on the farmers economy because any extra thing they have to do is less money for them. Money at the end of the week or the month that they need for groceries. So it is also a bit of that issue.

**Do you think that it could maybe interrupt or damage a pre-existing process?**

No. No because they will always have to harvest either way. Residues will always be there. It is a matter of adaptation and I think they can do that because they already adapted to a crop they didn’t have before. They can adapt to that additional process being borned from it. To all the chain. So now is an additional one being added which is the disposal of these residues on a collection point where they can be picked up. An activity is increased. That would be it. Not because there is a pre-existing thing but because there is one more thing to do. Either way, they have always had many things to do. But I think it really is related to their change of mentality. For them to understand the benefits they get at the end of the process.

**Do you think your company might have a role in this new value chain? Or that it could have a role…**

Yes, of course. One can contribute from the own knowledge, not only on their producers and their field and experience, but as a transformer it is important for me to know that there are residues being generated and that they will go to have a new use. And for me to provide them and to know that, at the end of this process, I am avoiding new residues and new contamination. That is wonderful. And I think it is very important because as producers, we have residues in the middle of the chain. And as such… For example, with boxes and everything, there are merchants… Not this one. But the thing is that, here in Colombia due to elections and other related subjects, the ecological material made out of sugar cane… This one has only a percentage of it, got totally depleted, because my boxes used to be opaquer and they were made out of only sugar cane residue. So I will always bet on that and I’m going to reintroduce that product in the chain in order to not use a shiny product since that is a non-recyclable material. I also think that this is important for transformers since the majority is not doing it. And there some beautiful packages but despite they being so cute, they are not thinking that at the end this is a residue. That people used the product and at the end it becomes a residue. It would also be nice to be able to say that at the end of the process the box is recyclable and it could be integrated into this other process. That would be good because this is an additional residue we are generating. In our internal matters, we are approaching companies. This is aluminum foil. It is not ecological and I’m not proud of it but there have been no other alternatives for me to provide a sealed product with optimal conditions. But we have started on the matter of replacing it by one that is made out of corn. So it will be more integral and it is how we want to contribute, sacrificing aesthetics but I prefer to be more careful with the environment. And it is, as I told you, an additional residue that could be integrated in the chain.

**To finish, we want to understand more on the different actors involved in the sector and the relationships between them. We have prepared this power-interest grid where you can see the position on power, if it is high or low, and the interest, if it is low or high, and we want to understand what are the relevant actors in the sector? What is their position in this new value chain? And what could be their interest in a new… I would like to ask you what do you think about these actors? What do you think about their positions regarding power and interest? Maybe we would need to change them? I don’t know if they are correctly or…**

To begin, I think that cocoa farmers should be bigger. Higher… I mean, they are so close to it, so central, maybe I would make it more central because, in reality, the role cocoa farmers play in this process… I don’t know, I would make them more central in all of the concept because they are the base. If you don’t teach them, if you don’t train them, if they don’t gain consciousness, if they aren’t careful… The one who has the trees, the ones who take care of it all the time... I would make them central. You might have good entities, a huge company to get the supplies, to make everything. But if that cocoa farmer doesn’t take good care of the plants and the harvest is ruined, there is nothing. There is no chocolate, no residues, there is nothing. I would start with that. For me, the academy is fundamental. For me, everything we learned in university we applied it with the association, we applied it everywhere. They have to go hand by hand. They need to realize it is not only about harvesting for the sake of it. They need to technify, harvest, sell, commercialize… That is a very important task for the academy and for the people who goes hand by hand with the farmer, who might now have access to this information and might not be aware of the changes occurring in the world. Nowadays we have information networks, there is communication, internet and there are many more things that would be beneficial for them but for that they need a channel to reach them and I think the academy is the perfect one for that.

**So it has more influence that right now. Because right now the power is lower and according to you its power is higher?**

Yes. I think that the topic of academia with cocoa farmers is way more central but the influence is total. The same goes with research and such. It also goes hand by hand with them. Because they have the crops required for the research. And at the end the research goes back to them. What you are researching and doing, in the future there is a benefit for them so it is a two-way thing. Obviously the national, regional and municipal government, the institutions, are super important throughput the process. One might not like the political matters but requires to be involved in the political processes that take place in the environment one is involved in, because on that depends the functionality of it. They are totally linked; they go hand by hand. It is a high influence, that is…

**In your experience, does the reginal government supports these projects or…?**

Yes.

**Yes?**

Yes. I know, by experience, that often the ones who said that the government is useless, doesn’t do anything, doesn’t help with anything… I know there is a lot of people who don’t have good leaders. Leaderships is essential in these cocoa farming environments to reach them. Give leaders, a good leader… It is not always the association’s leader. There is sometimes an associate that is nothing in the directive board but get things moving. So reach the good leader. The good leader who is capable of reaching the cocoa farmers. And in reality, it is the people that don’t manage, don’t look for things… In five years we created projects, cocoa, producers, with Fedecacao, with CENA. We looked for support from the townhall, from the government, from the ministry. We managed it but it was very leadership-related affair that was done at the time in the association. So, in reality, it works, it supports. Nowadays there are really on the outlook for these things. In Risaralda cocoa is one of the prioritized products in the development plan, so in reality they do it. It might be that the associations and are missing management.

**How is the cooperatives position?**

Well, cooperatives. We are now talking about Fedecacao and Cenicacao, right? Because the one from cocoa farmers are associations. We are talking about Fedecacao and them, right?

**Yes, but we are also cooperatives?**

Regarding producers. In this sector, it is mostly about associations. There are cooperatives… Well, let’s talk about them being the farmers associations. Yes, they are very close regarding influence and organization in this sector. In Risaralda we are very organized regarding associating matters. There are times in which people are careless and they unorganized and a lot of problems appear because the associative matter is very complicated. But people here have the culture for associating and coordinate their production to get a good client. There is also the role of these cooperatives and the commercial partners. The commercial ally is… Well, let’s gather the production from all the association and sell it to Colcocoa, or to casa Luker, or to me, I am one of their commercial partners. They do the payment agreements, and the process detail are arranged. But not always. Either they organize to fulfill that production or there are other intermediaries involved in the process or they don’t fulfill on time, and the fulfillment on time is very important of a compromise.

**How is the position of Fedecacao?**

Fedecacao is very good. The position of Fedecacao is very important and I think you really have to work hand by hand with them. Totally because they are the entity that regulates… Their engineers are very good and thanks to them you really look at the process, you look at what is happening with them, what other growth alternatives are there, what can be done with the producer. It is very important and they are very good. Maybe they might lack some coverage. They have one cocoa specialized agronomist per 3 departments or per zone. It is a large number of zones that have to be covered by one person. There are very few of them compared to the high demand there is in the country and I think that if Fedecacao’s coverage was better, if they had more agronomists available, more technicians, more people who can be with the farmer, closer, because they make a visit every 3 months. Every 4 months. And in 4 months the crops can go down, a thousand things could happen. I think that if they had more coverage, they would be able to do a better job. They are very good but we know that the coverage is very low. But they are very good. Well… Transport. Transport. This… Transport. Liquid… regarding the fuel? How is this…

**Yes… That is… Well…**

What would be done?

**Yes, yes.**

Well, going back to transport I see it obviously as logistic. I see transport as logistics. On the how I get it there from all of these places. The biomass collectors, yes, of course. An alternative entity would be required for the managing of that process. So that the farmers only deliver and then they take care of the process.

**Do you know logistics companies that pick-up biomass from plots or not…?**

No, I don’t know about that. I don’t know about people doing it or that… This issue, doing that, in this area… No. No, no. There are logistic companies that tell them what need you have and they will adapt to your needs. It is most likely that. Or to set your own logistics company to do it. Or to say, this company will being charge of logistics and this one of transformation. It is more related to the set up and adaptation to the needs required at the moment. Because you might organize the logistics but, here in Colombia, it goes together with the subject of residues. As such, I have how to organize it, there are so many rural towns in this region, let’s do this many distributions, recollection points, and you manage that. There are companies that do it and it could be done. That is not that complicated of an issue. It is between the company’s coordination, the logistics and the producer. And the producer is very centered, for me, it is in the center.

**Are there missing actors that might have an important role in the sector but we haven’t included?**

No… No. Maybe I’d say that because this is only about biomass, it is not related to the commercialization of the beans. Although we might observe that, for example, the *cascarilla* is another residue that will also require attention from the manufacturers. We might have to find something because we also generate residues. You might also want to consider that because I would like to integrate into this but I can’t find myself here. I might be in the cocoa sector but I’m not a farmer but I do generate residues based on cocoa. Maybe that. Yes. That might be it.

**Thank you so much for everything. I don’t know if there is anything else you would like to say or share with us on this topic?**

Well, no. Maybe I have been saying a lot of what we did, what has been done in the association area, for more than 5 years by which I know the community, that I also want to take care of. But now we also face the other side of the coin after we obtain a finished product, about what do we do with it and with we have been generating. And I love the project. I think it is a wonderful idea and we are in total disposition to do anything we can do.

**Thank you so much.**