**W1CC - Interview manager cocoa farm Montenegro - 5-7-2022**

**Specialties/difficulties/comments:** In this interview, besides [name], another woman sometimes also contributes to some answers. When this woman talks, it has been indicated in blue font.

**So, you can start with a brief introduction, about yourself and about this company.**

My name is [name]. I am an administrator of agricultural companies from the University of Caldas. I have been working for *[name]* for two and a half years. *[name]* is an agricultural company that produces cacao, citrus, and livestock. Its main production line is cacao, second is livestock. *[name]*has been existing for approximately 9 years, and we aim for clean, respectful agriculture.

**Nine years?**

Nine years. We are committed to a clean and respectful agriculture with the environment, and with a social factor. Basically, that's the information about the company and who runs it. I am, at this moment, as the head, the administrator of all the processes. We have a group of permanent workers, of 20 permanent employees, who are people who are not temporary, and are being changed every eight days, but who have been working in the company for three, four, and five years. Basically, it is like the basic information of *[name].*

**How many hectares is it in total?**

440 blocks, or 282 hectares.

**And cacao, how much does it have?**

53,800 trees. Regardless of in which area it is established in, it is about the trees.

**Did you start 9 years ago with all this?**

Nine years ago, it was livestock and citrus, and approximately six years ago, citrus began to be converted into to cacao. Then, there were already three crops left; citrus, cacao, and livestock, but cacao has been around for approximately six years.

**Why did you start with cacao?**

It started with cacao because the coffee began to move in this area. Cacao, in the Santander area, which is like the largest Department of cacao production in Colombia, began to present some problems of heavy metals, which is called cadmium. This area has very low levels of cadmium, very low. Therefore, that led the farmers in this area to choose to bet on cacao, in an area where there is no cadmium because that represents a competitive and comparative advantage over cacao producers in other regions that are presenting these heavy metal issues. Basically, that was like the decision. Not just this farm. Cacao farmers currently in the area.

**Can you explain how that cacao process is done here on the property?**

From the sowing?

**Yes, of course.**

Well, basically, the nursery is not set up here. The plant nursery is a certified nursery located in another area of ​​the Department. The plants are made specifically for the property. The plants are brought, the land is prepared, the plants are planted. As I mentioned before, for the first year, 90% shade is needed. During the first and second year, 90% shade. During the second and third year, you must replace it... During the third and fourth year, sorry, from 50 to 60% shade. During the fourth to seventh year, at least 40% shade must be supplied. After eighth year, it can be exposed. Basically, three root fertilizations are carried out per year. Root fertilizations are done, two pruning are done, which is what they have explained to you now; formation pruning, maintenance pruning, and production pruning. Constant monitoring is carried out for pests and diseases, to determine in which conditions the crops are, and thus avoid having to apply an indiscriminate chemical or biological product. Therefore, we address the problem trying to do precision agriculture. So, if there is a diseased tree, then we fumigate that tree, and we are not going to fumigate the entire lot. The harvest, in this area, we have a harvest all year round. Every 15 days we are harvesting. The fruits are harvested, packed in burlap, and transported to an area called the *descacotadero*. In the *descacotadero* the pulp is separated from the husk, the husk is left aside. Until now, until today, we are not giving it any use, and what is the mass, which are the almonds, we bring them, and we put them to ferment. Fermentation depends on each flower, each variety. Right now, we have five varieties on the farm: CCN-51, FEC-2, FEAR-5, TCS-01, and San Vicente-41. Each variety of these has a different fermentation process. An example, CCN-51, must be left draining for 24 hours, and its fermentation process lasts approximately 8 days. Drying takes approximately 5-6 days. The TCS-01 must be left draining for 48 hours, its fermentation process lasts between 14 and 15 days, and its drying can last more than 8 days. Each variety has a completely different process in fermentation and drying. Everything, fermentation and drying, we do separately from each clone, with the aim of giving quality to the product we are making. After drying, the product enters the warehouse, and after storing a certain amount, we transport it to Quimbaya. Quimbaya is the cooperative of coffee growers from Quindío, and they carry out the entire reception process for [name], who is in charge of buying the cacao. This is like the summary of the process.

**Does everyone have their own mode of transportation?**

Yes, we have... Right now, we have a tractor for the internal work, we have the truck, and we have a little truck. With this, we do our entire process, we don't have to hire anyone to do this for us.

**What volume do they transport to the association?**

Monthly, at this moment, we are extracting between 2 and a half tons and 3 tons per month. Monthly, but we are growing because we have cacao of all ages, from two months to six years. So, we are stepping it up. Every year the production has to double. If last year the production was 20 tons, this year we have to raise a minimum to 30, or 40.

**So, are you members of the association?**

Of [name].

**And why are you members?**

Because it is the only organization at the moment that is marketing cacao and that pays well. It pays well. We have the common certifications, which is called the [name] certification. Oh no, it is UTZ. We have UTZ certification, and the certification, what it does is that it gives a little value to the cacao. So, they are the ones who are more organized to buy cacao. Currently, the property is undergoing a BPA certification process, which are good agricultural practices. The goal is to get certified because we are already thinking about the idea of ​​reaching other markets.

**What price do they receive now?**

The kilo, 8,500. Dry kilo. A kilo of dry cacao.

**What do you think of this price?**

It is very low. It is very low for all the work that cacao has. Cacao has a lot of work. It has a lot of work. This property, as I was telling you, pays all the benefits to the employees, so the payroll is much higher than on a property where it is not done. The production costs of this property are high. We need to look for a market, and we are doing it, but for that, we are preparing the entire quality and quantity process. We are preparing all of this for when that client arrives, or when we have it so that it is nothing more than selling. Currently, we are preparing ourselves, focusing already on that.

**So, you have said that it is the only association that pays a good price?**

Yes. [name] and I don't know of any others.

**Do you know why that is? Because it has that certification, or because they pay a better price than another?**

No, it's just that I don't even know where else they buy cacao. So, I don't know where else they buy cacao. [name], true. They are the only ones. It's as if it were... Not a monopoly because I don't know the market, but they are the only ones out there right now. Yes, it is a monopoly. Yes, because they are the only ones on the market.

[Third woman] Can I say something?

**Yes.**

Now you ask him why the price of 8,500 was not good. Apart from what he says, which is the cost of production because they have higher expenses here than other producers, quality is too important. Here, the quality is very good in terms of flavor and aroma. That's the best thing about chocolate, the plus they have here. And if the price took that into account, then they would have to pay much more.

**But don't they pay for that quality?**

No, they don't pay for quality, they pay for quantity and that's it.

**Do they pay you the same as another property that has less quality?**

Exactly.

With other varieties and that the process is not reasonable.

**Because here you pay all the... and you take it to the association, and in the association they mix it?**

Yes, they mix it there.

More than an association, it is about marketing. They belong to [name association], which is the association of producers, and [name] is the marketer.

But, thinking about it, there is a reason why [name] is the only one that is marketing since [name] exports, and to export you must have monthly quantities, and you alone, as a single property, do not have a way to meet a client request who needs one or two containers weekly, or monthly. I don't know how much they buy. Instead, they take and associate all the producers, and well, they can be completing the monthly, weekly containers, whatever they need. I think it is basically that.

They collect to have volumes and be able to meet clients’ requests abroad. And what they must do is that they pay the same, but they do select the best, and sell it at the best price.

But I know a property, or I heard. I have heard that a property in Risaralda is selling directly to some exporters, and they are paying them almost double what [name] pays per kilo.

There are producers that sell at 20,000 pesos per kilo, but they are with micro batches, and those are businesses with small volumes.

Yes, that is already a question of a merchant, it is already like a question of a merchant, and of all these things. Of intermediaries, and all. Intermediaries earn a lot of money in Colombia.

The largest amount of money does not remain with the producer, nor are the consumers benefited, but rather the intermediary.

In Colombia, the problem is the intermediaries. Everyone wants to earn money, but the producer, who is the one who is facing everything, struggling with the weather, with the environmental conditions, with employees, with legal things, with all this... Who is the one who is investing the capital, is the one with the least money left.

It is that you should set the price. The producer should be the one who says, “My cacao is worth this”. And it doesn't happen here.

No, the price is set by the intermediary. Well, supply and demand too, but if there is a lot of supply, the price is low.

**Does the price vary a lot each year, or is it more or less stable?**

Cacao is very stable. Cacao is very stable. In other fruits, prices are very fickle, and that depends on the production. If there is a lot, the price is low, and if there is little, then the price is very high. Cacao is very stable.

**So, what does it mean to be a member of the association? Do you go to meetings, or things like that?**

The [name association] or [name] association? Those who buy cacao from us.

It is different.

Yes, they are two different things.

**Therefore, you sell it to [name] and you are not associated with [name association]?**

We are associated with [name association], but [name association] provides a more technical support service, and [name] is more commercial. Commercialization. [name association] a lot of training, many integrations, many trainings, many negotiations with government entities, with entities such as SENA, which is the National Learning Service, with universities, with the UTP. In other words, the association is super interesting for producers. I think José Elí's management as president of the association is very beneficial. [name] no, [name] only buys from us, sends a technician. Once a year, it sends a technician to see the conditions, that the processes are being carried out well, but no more. They are not very interested in the accompaniment. As long as there's your cacao, everything's fine.

**Do you also have assemblies and meetings with other members of the association?**

Yes, yes. [name association] holds meetings of... Yes, there was one. I think the last one was last year, but it is done, it is done. Yes, it is done. There is a lot of interaction between the members, and the president, who is very attentive to everyone.

And it is free.

It is free, yes, non-profit.

**Do I have to pay anything to be a member of the association?**

No, nothing.

It is an association, which I believe it is the only one that does not do that.

The requirement is to have cacao planted.

**Do you have a cacao contract?**

With [name]?

**With [name].**

Yes, of course, it is renewed every year, but one is not obliged. Or if I have a client in cacao right now, I'm not obligated. I withdraw from the contract and that's it.

**What do you consider to be the biggest challenges in the cacao sector?**

In the cacao sector... Pests and diseases. Climate change. I think climate change has a lot to do with it. I have noticed it last year and this year, which have been very atypical years in terms of climate. The environmental conditions and the amount of water that has rained have caused cacao blooms to drop, and if there is no bloom, there is no production. So, this year, the production, I think it has not been within the goals that we are expecting. Thus, that is a very big challenge because no one can modify, balance, or organize environmental conditions. Diseases because climate change brings with it the shooting up of pest and disease attacks. If there is a lot of rain, and the weather is often water, sun, water, sun, water, then pests and diseases shoot up.

**What are the biggest pests and diseases?**

The main disease is called *monilia*. It is a fungus. Super, super damaging, and if you don't use good management, it kills production. And in pests, the monalonion. It is a bug that sucks the sap from the cob, and it modifies the cobs. They are both limiting pests and diseases. Another limiting issue is marketing because if prices, every year, inflation, the family basket, all products go up. All. Cacao has always held. I have been working here for two and a half years, and the price is the same as it was two and a half years ago, and production costs are very high, they go up every year. Supplies are more expensive. So, if such an organized company doesn't get good marketing, right now, it has to start thinking about what to change. We change the crop, that we move on to livestock. Indeed, we have some batches that have had some problems, not the entire property because we are not going to do that. Some batches that we have had problems, we are going to see if we make the choice to change them into livestock because a lot of money is put into a batch, a lot of money is invested in it, and recovering that money is very complicated. Agriculture is very beautiful, but it is also a business. It is a business, so marketing is going to be crucial because if in two, three years a company like this does not have the market that we are really looking for, it will not be profitable to grow cacao. Thus, there are three very important ones: climate change, pests and diseases, and commercialization.

**Can you explain why there are 20 permanent employees? What is their age, more or less? Are they all men, women?**

Of the 20 employees, 2 women. Two women. The two women, who are Paula and Heidi. In the field, we do not use women because the work in the field is very tough. The work there is super tough, under strong weather conditions, so, more than discriminating since we don’t use women, it's because the work is very, very hard. The eighteen men are adults. Among those 18, I am one of the youngest.

**Are you 18?**

No, out of eighteen men. We are twenty, minus two, eighteen. Among the eighteen, there will be about 3 or 4 who are between 25 and 35. The rest are between 50 and 75, 70 years old. They are very adult people, and the problem in Colombia, in the countryside, is that in Colombia, there is no generational change. Young people no longer want to be in the field. So, for that reason, you go to the properties, and you see all adults, who are 60, 70. Thus, basically, we are very few young people.

**Do they come from this region?**

Yes, they are all from Quindío. Tebaida, Armenia, Circasia.

**Is it easy to find employees?**

Yes, it is easy to find. For example, a property like this is that with the administrative management, people seek a lot to stabilize. Because people know that they don't have to look for work every eight days, but that they have a permanent job, with a company, with everything. Therefore, people look for these types of companies a lot. It is not difficult to find workers here, and we are not constantly finding workers because our workers have been here for 3, 4, 2 years, six months. Very stable people.

**You have said in the introduction that you have the goal of having a sustainable and social property. Can you tell a little more about this goal?**

Yes, a property that bets a lot on clean agriculture, with a lot of environmental responsibility. We do a lot of reforestation, many protection areas are designated, there is a lot of flora and fauna. So, we are doing some reforestation to create biological corridors for all this fauna. Hence, we protect the environment a lot. Social because we look after the good of the workers. For the good of the workers because they have decent conditions, for decent employment, and because the treatment is respectful treatment, which seems to us to be a social balance. So basically, it's like a social and environmental balance.

**Does the owner of this property also live here, or is he on another property?**

He is from Cali, Valle del Cauca, Cali, but he comes here a lot. He lives more here than there, but he passes it from there to here.

**What are the residues produced throughout the property?**

Waste, since the cacao husk is the main one. Products from pruning, from cacao, and the waste that is produced here in the kitchen, which is the organic waste produced by the employees' food preparation. Basically, that because the orange and that, when waste is produced... And when oranges are pruned because the orange peel and that is taken away. Because they take the orange away, and they process it elsewhere and sell it fresh.

**But do you prune?**

Yes, it is pruned, yes. Product of pruning and all that, yes.

**And banana? I have seen banana too.**

Yes, we also have banana, but we have very little banana, and the banana is taken away, and we don't process it here, so there is no peel left. The plant does produce a residue.

**So, most of the waste is from cacao production?**

All of it.

**So, the husk, now you don't do anything with it?**

No, not currently.

**But do you want to do?**

Yes, we want to do. We want to make fertilizer, or organic matter, or we want to see if it can be used for animal feed. That is, if there is something better to do, we listen to you. What are you investigating?

**And do you apply pruning rests...?**

Pruning waste stays on the ground. It stays in the soil, and a product called BioReturn is applied to it, which are bacteria that decompose, or help accelerate the decomposition process, and that is incorporated into the soil again.

**Now, what is the amount of fertilizer used in cacao farms?**

Currently, not. We have been six months without using fertilizers. What's more, we have here some that were bought last year, but they have not been applied because of environmental conditions because a lot of rain has fallen, and this cannot be applied in the rain. Under a lot of rain because it is lost. The objective is to finish this, and then not to buy anything at all, but to produce our own organic fertilizers.

**I would like to show this image. It is the concept with which we work, it is called BioHub, and the idea is to organize a system that is also beneficial for the end user and for the region that produces the biomass. The idea is that here, there are different communities that produce biomass that is not used now, for example, agricultural or forest residues, and that can be transported to a biorefinery, where they are converted into other products. In our project, we investigate to make biofuels, which finally can be used, for example, in the maritime sector, but in the process a biocarbon is also produced that can be used as fertilizer, or for water purification. And there is a gas and water, which can be used again in the plant. I have images here, but we are using waste like that, which is converted into a plant like that, and it has a biocrude, and this is the biochar. Biocrude is a material that can be converted into different things, like fuel, but also bioplastics and all these things.**

Interesting!

**What we want to understand is whether such a system is possible in Colombia, in this region, and how it can be organized so that it is beneficial here in this region.**

Yes, of course. I believe that Colombia, and this area, it is an area that produces a lot of organic waste, a lot, that is not being used. They return to the ground, but in conditions in which they should not return, and I would believe that science and research have led to all this, being able to take advantage of this type of thing that we human beings use every day. Which, if possible, yes. There is a lack of organization and for it to be done, of course, by a company that has nothing to do with the government because what the government takes in Colombia nothing is done with it. What a pity to actually talk this way about the government of the country, but that happens. But if there was a company that wanted to do this, there is a lot to do. Too much. Too much to do because we produce too much organic waste. A lot.

**Why don't you use that now? Why don't you do something?**

Lack of knowledge, lack of budget because that has also a cost. That is worth money. And basically, it is that; people do not know what to do with this type of thing, people do not know, they do not have environmental education regarding this type of thing, and those who have it do not have the budget to do it. So, I think they are limitations.

**Do you think this property can play a role in such a system?**

Yes, of course. A lot. A lot. First, because it has the raw material, which is waste. Second, because that raw material is long-term. Cacao is a crop of 30, 35 years. It is a perennial crop. Fourth, because the owners are very environmentalists, and they support a lot of all these clean energies and all this. I also believe in that. I am sure it can be a very good project. So, I would think that, if a company has a way to support it, and believe in one of these projects.

**What benefits do you think it can generate, for the producers, for the area, or do you want it to generate?**

First, I would think of an economic benefit. An economic one. Second, I would believe phytosanitary, it would make the crops much cleaner because if you remove all your waste, you reduce contamination and the spread of pests and diseases. Because basically, pests and diseases reproduce from the same waste that is being produced on the property. I would think that economic, clean cultivation, and well, education. People would be much more educated about the relevance of this, as this is environmental education.

**What organizations can have a role for this education issue? Is there an organization that can have a role in this part?**

Yes, of course, for example, the CARQ, which is like the Regional Autonomous Corporation of Quindío, which is the one that regulates the entire environmental part and is the only one that is in charge of the entire phytosanitary and crop health issue in Quindío. They are very important.

**Do they organize trainings as well?**

Yes, and accompaniments. They are the ones that give the certifications of good agricultural practices. The CARQ is in charge of granting permits for water concessions to be used on the farm. I would think that they are like two entities, and the universities, those too. Because look how through the UTP you get to the properties. If it wasn't for them, how are you going to get to one of these properties? And we reach out to you and all these organizations thanks to them. It seems to me that the university and the academy are a bridge between the productive sector, the academy, and research.

**Are there connections like that where the knowledge from the academy reaches the properties now?**

Well now, I have seen it a lot here, but not everyone has that benefit, all the big ones, the wise ones. But small farmers who have two blocks are not so easy to reach them. This is because they are properties that become very visible because this is an organized company, it has a good organizational structure. It is an organization. So, this company is very visible to these entities, but the farmer here who has three blocks is not visible. It is not visible, but they are already taking a step, they are already arriving.

If they become associated.

Before it was not noticed. That's what associativity is for. The association, for example, if this were to happen, that you already have an association, those of cacao, if you have many associated producers. If that association did not exist, you would have to go one by one, and it would be a much more demanding job. Yes.

**Do you also see obstacles for this new system? If we want to do it, what can be the obstacles or challenges?**

Challenges? I don't know if the legal part, that the legal part, how much of a problem this has, but I have no knowledge. I could say that they must meet certain requirements, but I suppose that all structures have no problems. And challenges, to associate all the people because, for example, [name association] is big, but Quindío is very big, it is very agricultural, and there are other associations. That is more complicated I would think.

**Do you think it can also have damage, negative impacts, or disrupt a system that already exists?**

No. No, the opposite in fact. I am not currently aware of any system that does this. At least, not on a large scale. So, I don't think it had a negative impact. Quite the opposite. Obviously, from the little knowledge I have of the subject because it's not my subject, and it's not my strong point or anything, so I don't think it would have a negative impact.

**We also wanted to understand the actors who now have a role in the cacao sector but may also have a role in a new value chain. We want to understand their position regarding the power they have, whether it is low or high, and the interest they may have in a new value chain, whether it is low or high. Here you can see different organizations or actors, and I would like to ask you about your perspective and experience, how you see these actors in terms of power and interest, or if we must change something.**

National government... It's tough. We'll see. Now we are in a transition from a government that wants to opt for renewable energy, cleaner energy. I could say that from what I have heard, from the expectations we have, the national government is high because they are going for using renewable energy, clean energy, and that seems to me to be a transformation, and it is clean energy, so....

**But, so far, no...**

No, because the government begins on August 7. Thus, we have high expectations. I would think it might be high because we bet on that. That is why I opted for this because we are going for this type of thing. Regional government, now, low.

**Low interest?**

Yes. Very regular. Municipal, maybe municipal, maybe yes, through these people. For example, Elí. Elí has ​​a lot of impact as president of the association in front of the mayor of the municipality. Then, municipal would trust him more. More centralized.

**Does the regional government then have no support for the sector?**

What happens is that it is the municipal government that manages the regional government, not them directly. And it doesn't matter if the governor takes resources there, but that depends on the management of the municipality rather than directly on the governor's office. And it is the closeness of the mayor of that municipality, in this case, Montenegro. Let's say the project were to stay here. In this case, the closeness that the mayor of Montenegro has with the government. That's it. The maritime industry, I couldn't say anything. Communication platforms, I think low. Technology providers I don't know. Fedecacao I think high.

**High interest?**

Yes, because Fedecacao associates the Associations of Cacao Growers from all over Colombia. This project should be a good idea for them since it is going to bring benefits to all their associates.

**And what about power? Do they have power in the sector?**

Sure, Fedecacao clearly. Quite a lot. Liquid transport, storage companies I couldn't say anything.

**So, companies that can collect biomass, for example, but now they, do it?**

Sure, this would be high.

**High interest.**

The academy, very high, very interested.

**And power?**

Also. It seems to me that the academy has a lot of power. Yes, the academy has a lot of power. The cacao farmers, of course, high.

**High interest?**

Yes, high interest.

**And their position in terms of power?**

I think the position is high because you are a member of an association and your word counts. We are an important part of the association.

**But a single project?**

Alone? No, I do not think so.

**Are there actors who are missing here, who have an important role, or who can have an important role in a new chain?**

Currently, not. No, it doesn't pop up to me right now. I would have to stop for a very long time to think well because it is very fast.

**Well, if something arises, we can also discuss it. Let's see if I have everything. Yes. That was all I wanted to ask. I don't know if there is a lake that you would like to talk more about this topic, or something that you would like...**

No, I think the important thing was said. The only thing is that the research seems very interesting to me, and if at some point some of this could be done in Colombia, in this area. I don't know, I think it's very important for farmers to have this support, apart from the fact that everything seems to me like it would be an extra income. Not only would the gain be more money, but it would also be saving money as removing all the organic waste from the property is providing good sanitation to the crops. And if there is good health in the crops, then production costs are reduced. So, it would bring economic benefits to farmers. Interesting, and much more interesting that you are connecting with the academy, and that the academy is coming to the properties seems very important to me, or at least, we like it very much. The rest, everything was said.

**You have said that now you want to compost the husks, but at the moment you cannot produce compost if we want to produce something else. You don't have that material for compost. Is this a problem?**

What happens is that, at this moment, we want to make compost because we are throwing it away, but if at some point there is something, another benefit, another process, there are other new things that can be done, we are open. What happens is that we don't want to keep throwing it away, and if this existed, we would do this, but since it doesn't exist, and I don't know if it will exist in one, two, three years, we don't know, so we cannot keep throwing it away. We must use it. And we have all the infrastructure, but that infrastructure is made not only for this, for composting. The infrastructure is made, initially, for that, thinking that if at some point we are not going to compost, we are going to use it as a warehouse, we are going to use it as a storage room, we can build a house, many things. So, we did it thinking not only that it was made for composting. We are willing to listen.

**If there is the possibility of transporting not only the beans, but all the fruit to one place, would you be open to that?**

How?

**Now, you process the cacao on the property. If instead of doing that on the property, you would transport the fruit to a central location.**

And that they do the whole process there?

**The whole process. They collect all those fruits. What do you think?**

It would be good to take a look, it would be good to do a cost-benefit study. In other words, how much benefit do I have if I stop doing this, which I have always done on the property, to do this other, and if the movements of this other have more benefit than what we are currently doing. So, we must do a cost-benefit study, basically because this is a company. Thus, a company also moves, obviously, because it also needs to generate resources. Therefore, basically, that's like the only limitation, which is not a limitation, I don't think so. If it's feasible, yes, you could think about doing it.

**So, the most important thing is that, that it is economically viable. And another question. If there is then a biorefinery that can transform waste, what do you think of contracts with companies like this? Do they prefer a contract like you have now, every year, or more long-term?**

No, the contracts are better for one year. It seems that a five-year contract limits both parties a lot. It limits a lot, yes, because in a year if it's not feasible, I have the right to make my decision to say I didn’t reach the production, and then we end up with a contract. I cannot tie myself up for five years in something that I have still to start seeing how it goes.

**So, it is something new. Well, thank you very much. That was it.**

It was a pleasure.