**A1CF – advisor cooperative Santuario – 22-6-2022**

*Introduction*

**How much hectares has the farm here?**

6 hectares

*Here in 6 hectares, there are residues, but a lot less than in those fields of 400 hectares. To understand everything, we need to understand the dynamics between the farmers, the associations and federation. The only relation with the federation that they have is to export, the rest is of no use, like he said. So we want to understand this, how do these organizations cooperate and how have we create benefits from the residues.*

*Daniel explains the process and biohub*

**The first part of the interview is an introduction, of yourself and your position in the organization**

Ok, my name is [name], I study environmental administration at the UTP, I am connected to the association because of my family, who are coffee producers for years. They are part of the associations since its beginning. Now we are starting with payment of environmental services with the association, in different themes, because the association works with many different topics. We recently started with environmental services, where you sow different species of trees between the coffee trees. To have climate smart coffee, to adapt to climate change, not the climate change on a larger scale, but the climate change that we are dealing with on a day-to-day basis.

**First I have to questions, who is [name], we know that he is connected to the association, and what is your role specifically?**

We are called Asociacion de productores de café de alta calidad (association of producers of high quality coffee) [name]. [name] is the manager of the association, he takes decision in the association. As environmental administrator, I work on the topic of environmental services. We are in the process of support for this project of environmental services, where we look for farmers who have plots with specific characteristics, and from 2016 on, we collaborate with the NGO Solidaridad, and the funds of the lottery in the Netherlands, we are going to carry out this project, where we receive resources from this Dutch lottery.

**The association, when did it start, can you tell us the history of the association?**

Like [name] told this morning, we started in 2012. It was created between some producers with the idea to see what that could bring. They started a productive alliance, that was the start. But along the way, in 2017, they saw that this was not the way to collaborate, to grow the association and to receive fairer prices. A lot of organizations, from the government or Fedecafe, if you look at their real actions, that was not bringing benefits. What the association does is bring more direct employment opportunities, a lot of children of farmers are connected to the association, for example as engineer of food (alimentos), ‘contador’. So the employees that are needed in the association, are found outside/externos.

**I have a question, what are the main challenges is the system? You tell us that the association was created in 2012 and in 2017 you noticed that some changes were needed in the structure to improve. Could you tell us about the challenges and problems before that and the current challenges?**

In 2017, the first project ended, so we had to come together to determine some paradigms for the association, it is a collaborative process, where we work together. The first, the association was not viable, we lacked resources. And a second problem that we noticed was this role of intermediaries, we saw that the persons that do the hard work are the farmers, that do the hard work in the field, collect the beans. But if the money that that product generates reaches the farmer, the farmer could invest in improving its situation, work in better conditions. If the farmers are payed a low prices, they pay low prices to the workers. ‘platas rotas’, that is misery. We started thinking about this in the association. In that moment, the association started with the store in the municipio. We started to develop this culture of drinking good coffee in the region, now, the association can develop this store and receive the benefits from it 100%, that we can maintain this in time. During that time, in 2012, there were many associations, but they didn’t commercialize it. I think that is also a big challenge. This year, the volume of coffee that we commercialize in the association is quite important. We are non-profit organizations, but we do look for ways how to improve conditions of fair trade for the producers.

**In terms of numbers of commercialization then, how do you see that now?**

Commercialization started with good quality coffee. A determining factor we need to work on with farmers is the topic of humidity, when it enters the collection center. Humidity of coffee you need to maintain. It needs to be 12-13%. Coffee with higher humidity is of lower quality and has more defects. We have a relationship with the farmers, that we buy everything from then, and then we look for different ways to commercialize it. We have an enterprise where we commercialize regional coffee. We also have persons that can look for defects, and that is commercialized as well. I think this is in important volumes, we now have a basis of personnel that is working on this. The numbers of the association are increasing. I think now we are in an interesting point. In this sector we have peaks in production, now we are in ‘bad months’ for coffee, but still some volumes of coffee arrive.

**You talked about the division of plots, there are some farmers that have large plots and there are farmers that have small plots. Could that be a conflict or challenge for the association?**

Yes I think that is a topic on the level of the department or even national. For example in Cauca there are many small scale producers. In this municipio, there are plots that are united, and unite the work. Because that generates more employment. And to pay a better price for the workers. In the commercial topics, there are difficulties for people with big plots, they are also looking for more direct commercialization. It is not bad, they pay the workers a fine price. I think that biggest problems are more with labor issues, the offer and demand in this municipality. Another topic is the management of the residues. With the biggest plots, it is more difficult to manage and it goes to the rivers. It is an inadequate use of residues in general.

**Do these big plots belong to the association?**

In principle they belonged to the association, but when we started with commercialization, I don’t know exactly what they want from the association, but they became more separate.

**There is another topic here, sustainability, specifically about the association. What are the challenges in terms of sustainability for the association? And in the region and in the coffee sector?**

In the topic sustainability, the association has had a process. There are different organizations and companies that are looking for an association to collaborate with. Also at department level, there are commercial alliances that export and can generate a fair price, an added value for coffee that is produced with good practices, good fermentation. In Colombia, we have the best coffee in the world, but we export it in whatever form, not always with good practices.

**In management and transformation?**

Yes, I think it is there. That is very interesting because there are many farmers that have started to move to other products, because of climate change. That is also an important topic in the association, because the effects of climate change on the primary material with which the association works, is a challenge. We need to see how to react to that. Also in the environmental services, to see what is the best system to produce, with trees in the middle, what is nest for the soil, the fauna. That is what we have to manage at the association.

**Thinking about the sector, looking at the road to this farm here, there are producers that have changed to other cultivations. How many changed and to which cultivations?**

In the past years, 5 or 10 years, there is a big change towards avocado, in this region which is mostly a coffee region. People have noticed the profitability of avocado, for export. I think another factors is the labor force, you need less people to cultivate avocado than in coffee. And climate change, especially in the lower areas, it is evident, that is what we see on a level of the department. That will be the reason for many people to change their cultivation.

**In the associatin, you manage projects in the topic of sustainability, for example trainings, certification, organic fertilizers.**

Yes we work on that, for example on this farm, we work on the post-harvest process, to use less water.

**Ok, so that is done by the association?**

Yes, also in the form of trainings, how to improve the farm, also using more natural methods. Which is something new for this area. If the production of natural coffee will grow in this municipality, the quantity of residues in the water will reduce. Because that is a method that does not de-pulp or wash, so you generate less residues. From the association, we are promoting this topic. And we negiotate better prices with the intermediates in the municipality, that is also very important for the sustainability, because no farmer wants to produce or change practices when they only get paid a little, they are always looking for profitability, so that is another important topic.

**Here is a question directly related to the research of Siva and Susan, do you have experience with projects related to bioenergy? Or the utilization of residues to produce energy?**

From the association we have experience with biogas, what is generated also here on the farm. We work with 4 installations as a pilot project. But the residues that are generated post-harvest and in general, they are not utilized. Yes, people use el ‘carboneras’, to use for cooking or heating. We are doing a pilot now.

**What impact does the burning of these residues of coffee have?**

First is the amount of gas that goes into the air. I think the biggest effect is on the soil resources, killing microorganisms. That derioriate the quality of the organic material in the soil , which is very rich. We are in a mountain range area, with very old soil. Looking at nutrition, what happens when we burn, then we stop the dynamic of the soil. Therefore, in organic production they look at bringing back nutrients into the soil. We do anylisis of the soil, and I think there is a lot of impact because of this burning. When you burn it, you lose what normally goes back to the soil.

**So, from the association, you are doing a pilot project with 4 estates, for the production of gas with the residues.**

Yes, with the ‘honey of coffee’ (water from fermentation). We are working now on that.

**From the association, you identify challenges and opportunities to produce energy?**

Yes, if an estate can produce gas, that will improve the situation of the people that make the food. That they don’t inhale the gases that are produced by the wood. It has big opportunities, there are also people that use mechanical drying. We should see what energy is used by farmers, but there are residues from coffee, there is a lot to do. There are currently a lot of artisanal ways to use the pulp for example. This generation of gas or utilization of the residues, is a big challenge for farmers, yes I think so.

**The exercise they do, is called Biohub. (explanation of the concept). From the association, would you be interested in playing a role in a new value chain based on residues?**

Yes I think so, if it is viable for the farmers and has a sustainable vision for a longer period of time, I think the association can play a role. I think yes that the association has a good overview of the members and we always look for improvements and improvements for the farmers, that is the reason why we are there.

**In the case of the management of residues, like you said, it is not known what products can be made from the residues. But here you have a small pilot in production of gas, so it is not totally unknown. From the point of view of the association, what specific role could the association play?**

I think we can connect processes from the municipality with the producers. What Alfredo Castano is doing with the pulp. I think the association has an important role in connecting the farmers in the commercial outlets, and also with projects on the level of the municipality, to improve sustainability. That it is something harmonic, that it is not something hierarchical that tells farmers what to do. I think that is the most important role of the association.

**And within this system, what possible benefits do you see for the association, playing that role of connecting?**

I will return to the point that the association was created with the objective to improve the lives of the farmers. What is important for the association is that our members are satisfied, that they improve. That they have more production. Not only economically, but also other aspects of live. For example, if you can produce gas from the residues and the woman that is cooking doesn’t inhale smoke from wood, those are things that improve the quality of live. I think that having satisfied members with better quality of life is important.

**Reason to participate in a new value chain, in this case from the residues. What would be the reason for the association. Here we have some examples.**

Improving the lives of the farmers, and also from an economic point of view. As association we have a high volume. It could also bring economic benefits for the association. We can also bring a bigger scale, not only on the level of the small plots. It depends on the project. It is very different if you do a project with the pulp and every farmer has its own practices.

**Here is an interesting point, you know best from your experience. Because you are connected with the association because and your study is environmental administration, is to secure the use of renewable energy and reach a market in the same sector. What do you think of that?**

Yes, the gasses we produce for cooking food, that is a new use. It has positive environmental impact certainly, because we reduce the emissions that is generated, if we manage the residues better.

**Ok, here are questions about obstacles. What is preventing you currently from using all these residues?**

I think, to make it economically viable, that is also important for the farmers. The challenge is to make it economically viable and to show that it is environmentally beneficial.

**And other specific obstacles, for example in the policies and the legal part. What can you tell?**

I don’t know the specific policies, but I have seen often project with the aim of improving the rural sector, improve the conditions, but in reality, you don’t see it. I don’t know exactly what projects they have now at the municipality, you should check that. We should have much more projects, why don’t they do that? Why is there no help from the government? Where the resources for research are, for the producers, that they can collect that information. The state should guarantee the information, about what they are doing. That this information also reach the people. They are not helping with processes of certification, to help with the commercialization. Which is another difficulty according to me. There are important legal regiments and incentives. How to reach a farmer that does know how to write, that didn’t go to school, with a project that sais look here you should do it like this. No that does not work. I don’t know have the infrastructure, not the technical capacity to do it. I show them how to do it, here you have the worms, you can get them here, do you look for a certification agency, here you can find it. I assess them, I have personal to assess them. I look for ways to commercialize. Here is where the support should be. They don’t tell it to the farmer, and also not how to apply it. The people are tired of it. People are always sensitive to the organizations, to the loss of time and loss of money. They are tired of it. The farmer is tired that they come to them and promise a lot of things. Because from the national organizations, a lot of organizations come that have funds to assist the farmers, they come to their farm, we will do thing, sign here please.

**Here is a question, you said that in the association there are 95 members. Of those 95 members, what is the level of education?**

That is an important topic. In the association, we have 10 people where who we help with the administrative part. We also have producers that do their own roasting, we have producers that are baristas. So I want to say that, the fathers of those young people, who are taking care of that work, those are people who didn’t have access to education, who only have primary school, there are farmers that don’t know how to write. That is normal here in the rural areas of Colombia. It is also important when you are doing technical assistance, to know to who you are talking. To a farmer that completed university, or with someone who does not have knowledge on different topics. It is different. If you talk to them in a group, you need to pay more attention to the people who have less knowledge. You need to pay attention to that, because otherwise they don’t want to participate, because they will feel smaller then.

**To go back to what we have been discussing, those processes of development of energy, all things they are doing. What could harm those processes?**

You need to know first what they want to do. There are farmers that might say, no I don’t have this infrastructure in my farm. So that is limiting. That is why some members don’t participate in projects like this, because it costs money. They need space and resources, and also technical capacity. People don’t know that these products can generate gas.

**In the next part, we have a grid, representing power and interest of the different actors in the coffee sector. For example, we have the national government with high power and low interest. Or the municipal government, regional government, maritime sector, cooperatives, federation, biorefineries. In Colombia, this does not exist yet. Technology providers, that also play an important role. Also the part of academia and development of knowledge, transport, storage, and biomass collectors. The questions about this grid are first, which actors should be included in a new value chain?**

Producers and associations. I think that is very important. They have a fundamental role. Where would I put them, that depends on the project. If it is an interesting project for them, also economically, if it doesn’t create economic difficulties like we discussed, then they will assist in the different projects that will come. For the part of the associations, I think that, well with the national government, I think the associations are the ones before the national government and municipalities. Well, I don’t know where to put them actually. The power position of associations towards the producers is good, because we generate trust. Interest, for the part of producers and associations is also high, I don’t know if I am making myself clear.

**No it is good what you are saying. It is about how you see it.**

Yes I see it like that, also based on projects we are working on. I think that association is important because it generates trust among producers. And if the association stands behind a project, then the majority of the producers will participate. There is also infrastructure, and space, all those kind of things. But that also depends on the personnel available at the association, not every project that comes to the association is accepted, they need to take a look at it. But if it is a good project, then the interest and power of the association will be high, but if it is a project that is not economically interesting, then the interest of the association will be low.

**Ok, so going back a little bit to the grid, which actors are lacking here?**

Well, the associations and the farmers are lacking, also farmers that are not linked to associations, which is also a group that plays a role. Maybe also NGO’s and international cooperations, because here I only see national actors. I see academics, I see cooperatives. Well, according to me, the cooperatives are representing the farmers the least at this moment. That is my personal opinion.

**That is a strong opinion.**

That is what I feel, also a producer myself. For me, the federation of coffee does not represent the farmers.

**How is the relationship between the different actors?**

Well, I think that the academics should have a strong position. The national government, well academics with resources from the government, could realize a lot of good projects. And those who lack now, the associations and producers. But the national government is needed, especially for resources. And producers, well that is the project, they have a big role. And we also need NGO’s, for pilot projects and things like that, like Solidaridad, which is an international NGO that can also generate resources, and had technical knowledge. And also the municipalities. The resources from the municipalities are more difficult that the resources from the national government. Because it happens that the person in charge of the resources maybe is not very much in favour of the association, and is friends with certain intermediaries, so it is difficult that the resources reach the association and the producers. That is a political topic here, those are the dynamics.

**Here you can see a bit what is the idea of the project, here you can see the different residues. And this is what we call biocrude and biochar, which are the results of the process with the biomass. And that can be used for bioplastics, or biofuel. There are many things you can do with it.**

This is very important in the topic of energy transition.

**I have some specific questions for you. He talked about 14 million tons of coffee in Colombia, do you have the numbers of the production in Santuario?**

No, but I can send it to you tomorrow.

**And of the sector, what are the varieties mostly sowed here, in the association?**

I think the variety that is sowed here is Cenicafe, which is of the research centre of the federation. We see also a transition to other varieties, like Geisha, Sudan romee. Those varieties are not recommended by Cenicafe because of the rush and also about the volume, which is very important for them.

**Another question is more about the producers, and the age. Are they mostly men, or are there also women producers. And young people? How is the dynamic here in Santuario?**

The average age is about 55 years, which is quite old. In the association we are also showing that coffee is not only about growing green coffee and that’s it. The process after harvest is very important. And in that post-harvest process, women play an important role. They collect coffee, what some growers do, they specifically hire women to do the collection, because it is generating employment. In this association, we have about 20 to 25 women that are associated. There are 2 women that are representing in the association. That is very important because it has always been led by men, it is a machist organization.

**How is it as a young person, associate, son of a producer, identifying with all the problems you talked about. How would you, as a young person, and as an associated farmer, so this improves.**

The management of the residues? What is very important is what you are doing, research. It is important to have information and data to really work on those topics. I think it is that, without information, people just take decisions, just to take decisions. It would be great if the association could use all the pulp. Because currently, we don’t have information specifically about this region how to do it. This region has different characteristics then other regions. So for us, it is very important to have that data. And what is needed is education of the farmers, what they need to do with the residues. What they are doing is fundamental, that they come here to the fields, generate knowledge and share that with us.

**We are coming to the end of this interview. Is there anything you want to add to what you have been saying?**

No, I think that the residues that generate most impact in the fields are the (..?) and the pulp. (1:04:53). We need alternatives for that. It is affecting the water. It generates impact. It is also important that the social topic is also well integrated, that it also generated benefits. Good that they came here to research this and we are waiting for their results, so we can socialize it. To keep on developing.

**To finalize, they will organize a workshop in the end of July to invite different people interviewed in the UTP. Would you be available to participate?**

Yes of course. I am also available to provide more information if needed.

**Siva: do you see any role of the association in this Biohub?**

Here, we start here, in the local areas. We can make the connection between the researchers and the producers, who have the primary material. We know the reality of the *campo*. You come one day here, but that is not enough to grasp the reality of the countryside. That could also be the role of the association, that you come with proposals and we can look critically, from our experience.

**Siva: could the association also play the role of collecting biomass in their location? And distribute benefits back to the farmers?**

Yes, of course, I think that is role that the association can play. Now, all the farmers do the proceso de beneficio in their individual fields, it would be better to centralize that. But we need to look at the transportation and logistics. But of course, the association can play a role like that, also to take decisions together and look at what would be the best option. It depends on the project. We need to do an analysis of costs.

**Siva: final question. Now the young people are moving away to the cities, he is a young farmer, what does he think is needed in the sector to attract young people?**

Dignified working conditions, if there are good opportunities here, than I want to stay because here I have my family, my friends. Also the topic of barisma, if you can earn money from it. I think that the actions of the association is generating dignified employment opportunities, that they learn to do catacion (tasting) barismo, all those other things. Education and formation, or on roasting. It is not only growing coffee, it is much more.

**Thank you very much**

No thank you, you can always contact me.