A reality check for the coffee industry in PNG: Interview with John Leahy 4 July 2025

John Leahy[1]

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INTRODUCTION

John Leahy, a stalwart of the PNG coffee industry, brings decades of experience working with smallholders and overseeing plantations and processing facilities. For this issue, Reuben Sengere and George Curry sat down with John to discuss key challenges and opportunities in the sector. In the interview transcript below, John underscores the importance of consistent quality to meet international market standards, highlights the role of shade in improving labour efficiency, and reflects on how land tenure disputes limit production. He also stresses the need for interventions that align with the livelihood and social priorities of PNG smallholders.

THE INTERVIEW

(Interviewer)
Thanks for taking time out of your busy schedule to talk to us about the latest issue of the *PNG Coffee Journal*, which we plan to publish soon. But before we start, perhaps you could say something about your background in coffee.

(John)
I've been brought up with coffee, so I know the practical side of coffee very well. My job has been to keep things going on the ground – keep the mill running and the plantations, as well as the smallholder suppliers. I have worked closely with smallholders all my life.

(Interviewer)
John, you had a chance to read some of the draft papers, so it's great that you can provide some feedback on them before publication. The first one to discuss is the demucilager paper, because you have had some experience with this in the past. As you know, we ran a trial of a demucilager at Bena. What do you think of demucilagers? Would they be helpful for the industry?

(John)
The demucilager is a great idea. The best thing about the demucilager is that it gives you consistency over the fermentation stage. Fermentation is such a critical part of the process and has a huge influence on taste quality. Demucilagers fix that problem by standardising the process by stripping off the mucilage/grease in a consistent way. It's no good having three bags of parchment if two are high quality and one is of poor quality. The range of quality produced by smallholders is so wide, and this makes it difficult to sell coffee. Overseas buyers want big volumes of coffee of consistent quality. So, I have to put together coffee from different farmers to make up a sufficient volume of consistent quality. This is not easy when there is such a wide range in quality being produced by different farmers and even by the same farmer at different times. If you haven't got the volume of consistent quality, buyers don't want to know you. Centralised processing with demucilagers helps address this problem by standardising quality.

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I've worked on this factory all my life. I want Papua New Guinean farmers to benefit from it. By building the factory, we have the marketing power overseas, and that benefits the farmer through higher prices. If someone rings from Nestle in Europe and says they want 90 containers of Y grade at a certain defect rate, we can say, "Yep, no problem." There are 90 containers – boom boom boom – and they can use that in a roast. That's how they operate, and because we can fill their order quickly, they say, "Well, this factory is very valuable, so we'll have to pay them to keep them with us." There is a place for smallholder wet mills, providing you have consistency, and sell into a premium market.

But if you have a container to fill, that's a different matter. Here at the factory, we blend many farmers' coffee of the same quality to make up a container, and that's difficult when you don't have consistency. How can a small farmer supply 90 containers by himself? And that's why we've got that other mill next door that brings coffee from the small farmer so that we can blend coffee. It's got a de-stoner, and we can grade it. Then we can mix it with our coffee because it's the same grade. Because it's the same, we've got selling power. We can sell 90 containers, instead of saying to the overseas buyer, "Oh, we've got only two containers," or "We have only one container." Overseas buyers are not interested in such small lots. If you can sell them a full 90 containers like they asked for, then they are going to come to you with their cap in their hand and say, "Well, we will pay you so much to get it."

(Interviewer)
Our demucilager trial got a lot of attention, mainly because of the consistency it could bring to processing. Like you say, 30 farmers, and if they are all doing their own thing in fermentation and processing, there is no consistency, but the demucilager can solve that.

(John)
Yes, with the demucilager, they've all got the same quality coffee. They've then got the power of selling, and they can sell because they have bigger quantities of standardised quality. Because I've got a hundred bags instead of two bags. This is the power of selling.

(Interviewer)
And if you have a group of farmers and they do make a batch of coffee, bring it in, sell it to you, then a week later they do another harvest round, put it through the demucilager and bring it in. Then because of the demucilager, you are a bit more confident that it will be of similar quality to the first batch they brought in.

Do the farmers have any problems maintaining machinery like pulpers and demucilagers?

(John)
If they've got problems with their pulpers in the Waghi Valley, they can bring in the damaged components, and they do, do that. Also, I can go up and help them with pulpers and anything else. They can dry the parchment in the sun, bring it down to 11% moisture. There's no sun drying or anything for me; I put it straight through the mill. It's their coffee, and they sell the green bean to Sir Neil. It's because they got volume. If I've got that coffee in the factory, I can send them the money before it's finished. And then it's good because we got something to secure the money, and then you can keep going, bringing in the next large batch of consistent coffee.

(Interviewer)
There is another paper coming out in the PNG Coffee Journal on the benefits of shade. One of the things we've been seeing in the research is that shade levels have been going down in coffee, and people are getting overbearing dieback, and other problems.

(John)
Yes, if you are going to have less shade, you have to fertilise and use weedicide because you have a lot of grass, and the strongest grass underneath.

Let me tell you a story about shade that has to do with my uncle, Jim Leahy. He started the coffee here, and he had shaded coffee, around 70% shade. He got some criticism from younger plantation managers because he was getting 0.7 of a tonne per acre while they were getting two tonnes per acre. These younger plantation managers had got rid of their shade, so their coffee trees were in full sun. But the thing was, my Uncle Jim knew a thing or two about coffee and the benefits of shade. He asked these younger plantation managers: "In the middle of the season, how much water do you use? How many people do you need to pick your coffee and where do you recruit them from? How much fertiliser do you apply? What are your costs for keeping weeds under control in your unshaded coffee plantations?" And you know, he went on and on with costs. Then he said, "Well, when you look at it, how much do you make per acre after costs?" They made just about as much as my Uncle Jim. My uncle said, "You have to send a truck to Chimbu to pick up all your pickers." He said, "I can get all of my pickers [locally] from those who live around me." And he said, "You know, because I don't have that much to pick, I don't have to worry too much about it. There is much less water use, and I don't need fertiliser under shaded coffee, and my weeding costs are much, much lower than yours. My return is just under what you're getting for producing two tonnes per acre, but my work and costs are much lower."

(Interviewer)
And, of course, your Uncle Jim had much less work and stress for almost the same return.

(John)
It's return for effort. My Uncle Jim said, "With shaded coffee, my effort is a lot less for a much bigger return. That's wise." Papua New Guineans, we are not there to make millions of dollars out of coffee. We've got coffee as a backup when our food crop is not performing. The main thing is our food crop – that gets priority. And then we look at the coffee. It has to fit in with our social activities and everything else; coffee is down the line a bit. It's not the most important thing. It's not like being a farmer [in Australia], but the main thing we want to do is a little bit, and we want to get it [coffee] with the least amount of effort and cost. And that means shaded coffee. You know, we've got to see what suits us the best. And that's the way we're going to do it. And if it's less water, we can do it at a central factory.

(Interviewer)
Yes, and another thing is that shade can suppress weeds. It can also help create a microclimate more suitable for coffee with fewer extremes of temperature.

(John)
If you take away your shade, the coffee gets stressed. You can also prune your shade to bring on flowering, and that helps with your coffee production and synchronizing flowering and berry development.

(Interviewer)
Why have centralised factories not taken off in the highlands?

(John)
The reason they don't process at a central wet factory most times is because of fermentation, and drying at the centralised factory. Parchment that is drying can go missing, which is a huge disincentive to central factories. But with the demucilager, after putting it through the machine, you can take it back the same day and sun-dry it at your own place. So, it's a lot easier to get it right, and farmers are more confident with it.

(Interviewer)
We have a couple of papers giving a brief overview of the training modules and their content. There is one on shade and several on the production side from establishing and maintaining coffee gardens, soil nutrient management, harvesting and processing, pest and disease control,

and marketing, etc. And you had input into some of those. One of the things you and others have said, and which came out of our research, is that people follow a low-input system of production. You advised us to make sure that the training modules were relevant to the smallholder situation, and not to expect them to do lots of extra work or make lots of cash investments in their coffee because people won't do that.

(John)
Well, that's right, and it reminds me of a story. In the early days of coffee when we were planting coffee trees, I remember a bloke coming out from England to advise. He said, "Well, if we plant so many trees per acre, our return will be this much." I said, "That's no good at all in New Guinea because if the trees are too close together, no one will go in to pick in the morning, especially if it has been raining, because it's wet and cold."

If the coffee trees are planted too close together, they are going to get wet in the morning. I'd never have my coffee picked by the time people thought it was dry enough to go in and harvest. By that time, it's time for them to get out and work on their food gardens. You have to do what suits the people, so you have to make planting density suit the people. Planting density is not something that a harvest labourer would bring up in a plantation situation, but the smallholder can do what he likes with his time. If he doesn't want to work early in the morning in his damp and cold, densely planted coffee garden, then he's not going to do it.

(Interviewer)
That's interesting because when we went to Asaro, Bena, Marawaka, and Baira and other places, they had tall varieties widely spaced, and they seemed more popular than dwarf varieties. Some smallholders said that the tall varieties planted at lower densities than dwarf varieties were easier to access for harvesting. Now with coffee berry borer (CBB), access is even more important so that you can carry out sanitation activities more easily.

(John)
Well, that's right. Often it seems that extension efforts are directed at making the farmer suit the coffee rather than making the coffee suit the farmer.

It's not me going in and saying you have to plant your trees this way and do coffee that way. PNG farmers are amongst the first people in the world to start farming.

(Interviewer)
Yes, PNG is one of the centres where agriculture emerged. So, they know what they're doing.

(John)
They are experts in coffee. They do it to suit themselves; they don't do it to suit me.

(Interviewer)
What other big issues are there, John?

(John)
The biggest problem in New Guinea right now is land tenure. You can get out there and see kunai: a lot of barren ground. Often you hear, "Well, why don't we plant coffee on that unused land?" But of course, that land is not available. There's no land available, and the old plantations are going back to bush because no one can determine who is the owner of that plantation. As soon as one person says, "I am the owner," this person here is going to say "No." And if you have a look at the pictures from before, when my uncle first came here, there weren't any villages in the valley here. It was all kunai; there were no trees. They lived in the mountains, that's right.

(Interviewer)
One of the papers is about nutrient recycling in coffee, and another on intercropping. Some people recycle nutrients already, but a lot don't, even people who are intercropping their coffee.

There are things that can be done to improve nutrient recycling and intercropping by retaining the nutrients in the pulp and skin and putting it back into coffee or food gardens. But people don't really want to cart their pulp too far.

(John)
For us, it's sometimes worth sending pulp out to farmers. We have to send out the truck for cherry anyway, so pulp can go back. I have a nursery here with a worm farm that uses pulp. The worm farm operates when I need potting mix for the nursery. When I don't have a nursery, I don't need a worm farm. We want to get rid of husk too, if farmers want that. Farmers usually burn kunai on the garden before they put the new garden in, and the nutrients in the ash get used. If I give them bags of husk, they could spread it on top of the kunai.

(Interviewer)
Not many farmers seem to be wasting pulp nowadays. Maybe they are more aware of the nutrient value of the pulp, so they are not wasting it.

(John)
Yeah, sometimes they put it in with the chickens, and the chickens manure it. And then it's applied to gardens.

(Interviewer)
That's a good idea. In the demucilager trial, the demucilager was located in a citrus orchard. Each farmer in the group had two plots for bulb onions and other vegetables. All the pulp and skins went into these bulb onion plots. The group leader also set up these plots as a trial so the farmers could see and learn from the trials. On some plots, they added goat manure as well as coffee pulp so that farmers could see the yield effects of adding different types and amounts of nutrients to their plots.

(John)
That's amazing. We need someone at CIC to test that.

(Interviewer)
The group leader organised it himself because the group thought when they were setting it up that if they recycled the pulp and waste, it would make it easier to get certification later if they wanted to go down that path. Originally, the pulp was just going to be spread in the citrus orchard, but the farmers in the group didn't like the idea of the leader getting all their pulp for his citrus orchard because they realised it was worth money. This is because Mike Webb and Emma Kiup showed that coffee pulp was worth quite a bit of money in terms of the nutrients in it. So, the leader came up with the idea of members having their own vegetable plots and benefiting from using pulp to fertilise the bulb onions. Some of them did quite well. They were not huge plots, but they did all right out of them and made a bit of money.

(John)
So it's all about showing people something they don't know, and if it works, they'll take it on. But if they have to do this and that, or it doesn't work for them, they won't use it. But after a farmer has been sitting back and listening and says, "I don't want to do this," it doesn't matter what you do or what you say, people won't do it. The problem is that extension 'experts' don't realise this.

Years ago, when I was much younger, this coffee person from England came onto my plantation without being invited, and he said to me, "Who are you?" I replied, "My name is John Leahy. I run this place." And I said to him, "Who are you, and what gives you the right to walk into my block like this?" He said, "I'm Dr XXXX. I'm a coffee expert." I replied, "What constitutes a coffee expert?" He said, "Well, I have been doing it for a long time." I said, "So have I, so from one expert to another: #!*@ off." But he was a good bloke. He knew a lot, but the thing was, he was trying to apply a plantation management style to blocks and smallholder gardens. If it's not a plantation,

he's barking up the wrong tree. This view of smallholder producers in PNG being like plantation managers of their coffee gardens is wrong but very common.

(Interviewer)
That's a very good point, John. When we started work on these training modules, we looked at training modules in different countries to see how they were approaching extension in coffee and cocoa. There didn't seem to be much specifically for smallholders following a low-input production system; it was nearly all geared towards plantations. So, it's probably the same issue in all these other coffee-growing countries – their training materials are all designed for high-input plantation-style production, not for small farmers.

(John)
And that's what I'm saying. If you want to influence smallholder coffee production, it would be better to start with the kids. At the end of school, get a kid that has learned a little about coffee to go out with new ideas. It's far better than trying to teach growers when they are older. With young people out of school, the attitude is, "Let's go out and try it, twice the amount of coffee out of the same acreage and the same trees."

It's simple science really. At the end of the day, what are you going to do, break records for high production, or are you going to make money? No one's interested in the record.

(Interviewer)
And what do you think about the CBB situation?

(John)
There is going to be a lot of coffee berry borer issues. We need to figure out what the real damage will be in the long-term. We've estimated current losses to be around 15%. We must consider how we're going to address this. You can't address it using a blanket solution because we have the DPI, and not all farmers will agree to a blanket strategy, so it's not going to happen.

To say that it will affect you less if you use blanket control methods is not entirely accurate. For me, coffee berry borer is here, and we need to figure out how to overcome it. It's like the rust issue; rust was going to be the end of coffee, but we survived. Berry borer is here, and it's something we'll have to live with and learn to deal with. Whether we can address it individually or collectively, it's going to be very challenging.

(Interviewer)
While we were driving in to the mill, we saw you are paying K1.60 for floaters. How do you take the floaters into account?

(John)
We take a sample, and we float it. The percentage is what we apply to the cost. Basically, the floaters are where coffee berry borer has gone in. With the new factories, we have a machine that floats off all the floaters. It goes through a different huller and topper, and I keep it separate. All the sinkers go to one place, and then I can see if I want really red cherries or if I don't mind yellow. I can adjust it so it pulps the lower value yellow, or I can adjust it to pulp higher value red cherries. The green ones will be spat out, and I can deal with them later if I want to. The good factories are all like that; it's just a matter of us keeping up with the times.

(Interviewer)
But the floaters are not a waste; they can go into low quality coffee.

(John)
I would recommend densitometrics. It takes off the lighter beans. It depends on how light and how effective they are. If someone wants 70 defects per kilo, I don't give him 60 defects per kilo; I give him 72 because two is within the tolerance range. I'll always do that because otherwise,

you're losing money, and you're working for them. Our farmers don't know that. They pick the same coffee all the time, whereas I adjust my coffee to what is required. I've got bags and bags of *pipia*. So, if my coffee is too clean, I'll bring a bag here and mix some *pipia* in to bring the defects up to what is required. If I have to supply say, 40 containers, and to maintain the factory's name, I've got to keep it within the tolerance range. It's very important for us to be within that tolerance because my clients rely on us to supply them with the coffee they demand.

I'm not here for myself; I'm working for PNG Coffee Exports. Like the other big exporters, they have plenty of money, and we have to keep their money here, build something like this so we can give our farmers a good price. It's no good, all these people building factories. It took me years to build a small factory. But to have selling power you must have big volumes and consistent quality and you have to be on the market, and your name has to be out there. I went to Hamburg in Europe and I went through the roasting factory, and this bloke I met asked, "Where are you from?" I turned around and said, "I'm from Lahamenegu in PNG," and he said, "Your coffee is this type," and he knew everything about the coffee. He said, "Yours is the same as this factory in Africa, this factory in South America." He could name all the factories because they give the same blend and consistency from all these different mills.

But like I said, they won't give you pretty talk; you have to be able to supply them with what they want. That's why I'm here for this place. I've built the factory for Papua New Guinean farmers. I've been able to do that because they've got the coffee. I could've built it for myself, but then I wouldn't be a large enough seller to get the market overseas. Someone in the village says, "Oh, I want to sell my coffee. Mi salim kofi go lo America, na ol ino laik na bai mi mekim wanem nau? Yu sutim mi wantaim Bunara, na spia blo yu pinis na yu kam askim mi lo spia, na yu laik sutim mi, wanem kain birua." You know, that's what it's all about at the end of the day. They got a little bit of coffee only. I don't get all these containers because I am good looking; I get it because I pay the price.

You know, our farmers are not idiots; they know who is paying the best price. They say, "Em bai baim gutpela price." The coffee industry board comes and makes it harder for these blokes all the time. What you have to do is pat them on the back because they are the bank.

In the coffee industry, the bank will not give you any money; there's no land tenure security, nothing like that. So, the big exporters finance coffee buying: K200,000 going to this bloke, K100,000 going to that bloke, K150,000 going to another bloke, K70,000 going to someone else—they can supply a container at once, or two containers. They are big buyers, not because they are good looking, but because they know the people they are buying from, and they give them that service. They are the ones that come to the factory and say, "John, I don't know anything about a factory. Why do I want a factory? That's your problem. You worry about that side; I worry about getting the coffee."

(Interviewer)
Before we finish up, is there anything else about the coffee industry you would like to mention?

(John)
Well, I think the coffee industry is capable of looking after itself. People in the industry, especially smallholders, should shape the future of the industry. This is the people's industry. I'm not, and the factories are not, the coffee industry. The coffee industry is the little bloke out in his coffee garden – he's the papa bilong kofi. If you don't go with the way he thinks, you are not going to get any coffee.

CONCLUSION

(Interviewer)
Thank you John, that was a very informative interview. If I can summarise, you made a few very important points. They were:

1. Consistent quality and scale are very important for coffee marketing and prices. Consistent quality and consistent supply together with being able to meet the demand for large quantities of coffee will give farmers a marketing edge. Centralised processing where cherry from a group of farmers is pooled and processed to a consistent quality will help farmers earn better prices
2. Shaded coffee makes good sense for smallholder coffee farmers because it's more sustainable and suitable for a low-input production system. It can deliver 'ecosystem services' like reduced input costs such as fertiliser, weed control, pest and disease management, and help create a microclimate more suitable for coffee.
3. Coffee extension should recognise that low-input coffee production systems are highly resistant to change. Extension strategies should work with this fact rather than try to transform smallholders into high-input capital intensive plantation managers.

(John)
Anytime you blokes from CIC want to come and talk, please come in. I am always here, and I am here for Papua New Guinea farmers.

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