



# How to build community.

## Inside DRC's caterpillar project

### Summary keywords

caterpillars, caterpillar, communities, successful, malnutrition, indigenous, relationships, laboratory, deforestation, democratic

### Speakers

Jake Lloyd, Violet Ruiru

### Episode 5: Inside DRC's caterpillar project

#### Jake Lloyd 0:15

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Hello, I'm Jake Lloyd and welcome to *How to build community*, a podcast and a radio show brought to you by Tearfund's *Footsteps magazine* and Arukah Network. Insects. They make up 90% of all species of animal on the planet. The total weights of all the insects in the world is about 70 times more than all the people. They are important pollinators of trees, crops and other plants. They help to break down waste. And they are an important food for many different creatures, including fish, reptiles, birds and mammals. So insects play a crucial role in maintaining the balance of nature. But what role do they play in building human communities? Well, in this episode, we're going to find out as we hear a story about one community and its relationship with the humble caterpillar.

#### Violet Ruiru 1:21

They all see themselves as a community working alongside nature and reaping the benefits and the gift from God of caterpillars.

## **Jake Lloyd 1:34**

That's the voice of Violet Ruiru, who is a program advisor for the Salvation Army. She's based in the U.K., but since 2016, she's been supporting and advising a project in the Congo Central Province of the Democratic Republic of Congo. And in this episode, she's going to tell me the story of the caterpillar project. It's a story of how deforestation almost wipes out a species of edible caterpillar in the region. It's about how a community-led by village elders and primary school children brought these caterpillars back from the brink. It's a story of how cultivating edible caterpillars is not only boosting food security and nutrition in the region, but it's also increasing knowledge of sustainability and biodiversity. It's improving local relationships and is creating training and employment opportunities for the future. And in the interview you're about to hear, you'll find out why this story has implications for all of us. But I began by asking Violet to describe this part of the world to me.

## **Violet Ruiru 2:47**

DRC or Democratic Republic of Congo. It's one of the biggest countries in Africa. It's very extensive and has a very high population and also very high poverty rates. The rates of malnutrition and child mortality are among the leading. And they are also among the very least developed economies in the world. And beyond that, it's one of the countries with lots of natural benefits and lots of forests and lots of plenty of water. And the people have very, very hospitable and they enjoy it, their traditional way of life, very indigenous. And they have lots of knowledge that they have used to. To thrive over many years. Hmm.

## **Jake Lloyd 3:52**

Is it common to eat caterpillars in this province of DRC?

## **Violet Ruiru 3:57**

Yes. Caterpillars are a great delicacy and also has a very traditional connection with their ancestors. In most of the communities in DRC, they believe that the appearance of caterpillars signify harmony between their communities and their ancestors, and also harmony between the communities and nature. So appearance of caterpillar is very significant and they believe that caterpillars, they are a gift to them for food. And it's one of the most highly rated delicacy when a visitor is come and is visiting and is given caterpillars, it shows that they really respect to. And in some communities because of how great they hold caterpillars, they give sacrifice of things like kola nuts and palm wine so that their ancestors can allow the appearance of caterpillars on their trees within their farms. They believe also that caterpillars are a great nutrition for children and women who are lactating. And they also believe that the host plants that caterpillars rely on are very important to their communities. Livelihoods.

## **Jake Lloyd 5:37**

Have you eaten many caterpillars on your visits there?

## Violet Ruiru 5:42

Yes, I've been offered in some of the visits. I've eaten, tried fried caterpillars, and they're very, very delicious.

## Jake Lloyd 5:51

How would you how would you describe the flavour?

## Violet Ruiru 5:55

It's crunchy and very tasty. You want to eat more and more of it.

## Jake Lloyd 6:03

Describe for us how the idea for this project came about.

## Violet Ruiru 6:08

The Salvation Army in the U.K. and the Salvation Army in DRC have over many years worked together to address the critical need of on malnutrition in DRC. And it's been a long journey implementing different designs of programs to enable the children attain proper nutrition. And in the last project that we worked together was on promoting Moringa trees and seeing first hand the benefit of Moringa plant when it's given to young children and how they start to thrive and move from being very, very malnourished to being very healthy. We continued to discuss which other ways, and we continue enhancing the nutritional component of the children and their households. And in one of their local meetings, the two started talking about edible caterpillars in a small village called *[inaudible]* in Madiba territory. And he started saying how they chased the caterpillars. And because of that, the ancestors were not happy and no one that their children were suffering from malnutrition. And we went on a journey of finding how do we reintroduce back the caterpillars? Because it was very important. It was very clear that caterpillars played a major part as a source of diet to the people of *[inaudible]*. And from there, they came up with a small idea that they can go to neighbouring communities who still had edible caterpillars, a species that is called '*[inaudible]*'. And they said they would walk, they would go visit that community, which was way away from *[inaudible]* Village. And they said, we are going to request them to give us some eggs to bring back to *[inaudible]* so that we can hatch them and see whether they will help us reintroduce our caterpillars back. And in the process, they also said we need to first plant their host trees so that when the eggs hatch, we can plant them on the trees and we thought they came up with our idea that they needed to establish tree nurseries and they sold that everyone in the community needed to be part of this project. The children in the schools were given the role of nurturing in the tree nurseries. In four primary schools in *[inaudible]*, they established tree nurseries, growing the host trees that caterpillars inhabited. And after that, after the eggs hatched, the love birds were planted on their host trees in a small demonstration place. And after some time, the land was what distributed to the families around *[inaudible]*. And they all planted those numbers onto their horse trees that they had. And that was the initial journey of this project. And after seeing the success of this project, they went to the second phase where they came up with the idea again locally from *[inaudible]*

that they needed to establish a small learning laboratory where they would get different species of caterpillar eggs and they would have them their indoors and then they would use that center also as a landing point where different people would come and learn the knowledge of Caterpillar production. And in this one laboratory in [inaudible], they were able to introduce the species of edible caterpillars. And from the center, once the eggs hatch, they are able to be distributed again to the community so that they can continue producing more and more caterpillars.

**Jake Lloyd 10:57**

How long has this project been going on? Because you talk about planting trees. Obviously, trees don't grow overnight, do they?

**Violet Ruiru 11:05**

Not really. We started it's been a long journey since 2016 and most of the host plants of caterpillars are shrubs which grow very, very fast. So within two years, they are able to grow. And as they grow, they bring in the caterpillar and plant them on those trees. And what that has meant is that they no longer have to, especially the women and the children do not have to walk long distances into the forests, sometimes in very dangerous walks in search of caterpillars to feed their families.

**Violet Ruiru 11:49**

They have to try to, within their communities.

**Jake Lloyd 11:53**

You talk about a lot of different groups of people. You talked about the village elders and the primary schools involved. How did you go about building all these relationships and getting so many different people involved?

**Violet Ruiru 12:12**

Initially, it was just out of the interest that the different people portrayed. For instance, when the tree seedlings were being established, the children walked alongside the people who were failing in the poly tunnel bugs to plant the trees. And also they went alongside the community volunteers to look for seeds in the forest, which they came and planted and the projects realised.

The children are very interested in this. And out of that they said, let's establish tree nurseries in schools. And these give the children a lot of practical experience in planting trees because during school terms the children are tasked with the roles of watering and nurturing their the tree seedlings. And some of the teachers in the primary schools were trained by the project agronomist so that they, they passed the same information to their children. And again, during the times when the schools closed, the children have a role to continue nurturing those tree seedlings. And once they're the tree seedlings mature, then the project is able to pick and distribute to the villagers. The youth were also very interested because many of them ate

caterpillars, but they did not know where the caterpillars came from. So when this project began with the idea of 'let's farm, let's domesticate caterpillars', many of them weren't interested, and they volunteered their time and their energy to help clearing bushes so that they can plant the hosts plants and the host trees for caterpillars. So in that way, the way involved and also they saw a benefit that they could be able to produce caterpillars and sell in on some income for themselves. And of course, the women are very close to the household and they know first hand issues relating to malnutrition, and they wanted to get involved in this project because they saw the need they needed to have some food, nutritious food, to feed their children. And they also had an opportunity where they were distributing local knowledge on how to make caterpillar recipes so that women got involved in that.

And the village elders were very key because they helped to establish the village caterpillar committees. They were able to give land where the demonstration plots would be established and the way able to mobilise the community and make by-laws on how to protect their trees within their communities. So all the community people were very involved in this project from the very start and they also had the benefit of getting involved in this project.

### **Jake Lloyd 15:45**

And is the caterpillars being produced? Well, are the caterpillars being farmed in the sense of then selling produce, or is it just anybody locally can help themselves to these caterpillars when they want them?

### **Violet Ruira 16:02**

They have initially farmed for households dietary needs and where at this point they've started producing surplus and they are able to sell their caterpillars in their local villages and also in markets that are a bit far from their village. And they have been lining how to add value, how to preserve the caterpillars. They are able to try them and lengthen the shelf life of the caterpillars, and with that they're able to sell them or preserve them for the time they don't have enough caterpillars that the household and the families can be able to continue enjoying the delicacy of caterpillar as part of their diet. Hmm.

### **Jake Lloyd 16:56**

So who is it that harvests and distributes and sells the caterpillars then?

### **Violet Ruira 17:01**

At household level? Every small scale farmer has a number of trees where they produce the caterpillars. So it's for domestic use. So when they have, it's more than they can consume. Then they sell the surplus in the local village and the money they get is for their household. The Caterpillar Management Committee helps them to continue learning more about rearing caterpillars. It also helps to connect them with markets, and they also help in distributing knowledge and the different they help to link the project and the community. And they are able to continue ensuring that every member of the community is able to farm the caterpillars in their right way and has everything, the knowledge that they require to produce more caterpillars. Mm hmm.

## **Jake Lloyd 18:08**

Where I live in the southwest of England, a year or two ago, I went on this guided walk with a forager. There's this guy who takes you on a guided walk, and he's an expert in the local plant life and you learn to pick edible leaves and fruit and things like this that you find in the countryside. But he was saying that there are certain rules you're encouraged to abide by, whereby you only pick a certain number of leaves or a certain amount of fruit in order that, you know, the plant remains healthy and can produce more. It's similar rules with the caterpillars that people talk. You know, you should only pick as a you should only take a certain number at once.

## **Violet Ruiru 18:57**

Yes, they have very good indigenous rules. They look at the length of the caterpillars and you're not supposed to harvest one which is small or which is not fully developed. And they are able to know from the tree how high they can harvest the caterpillars just because some species, when they mature, they move higher on the trees. So they have those guiding rules which work very well. And I think what is also very important is they have their own communal allowance, which stipulated that no one should cut a tree that is a host to caterpillars. So they have all those very interesting guiding rules that enable them to protect nature. In caterpillars.

## **Jake Lloyd 20:00**

I'm really interested in an approach like this that brings so many different people together in a community. How has it affected relationships locally?

## **Violet Ruiru 20:14**

Yes, it's it has brought together a very great connection and cohesion among the community members, because each one has seen and feels valued for their role. They play in this project. And they all see themselves as a community working alongside nature and reaping the benefits and the gift from God of caterpillars. And for them, seeing the reappearance of some of the caterpillar species that were extinct because they had cut so many trees and because of the slash and burn agriculture and because of the charcoal production, they are working all together to rehabilitate, to bring that back. The caterpillar and bringing back the caterpillar caterpillars in their ecosystem means that they are bringing their natural biodiversity back to their community. So that has been a great encouragement for them to work together. Hmm.

## **Jake Lloyd 21:32**

And you mentioned that the slash and burn of the trees, this deforestation prior to the project, was it local people who work cutting down trees or was it outside companies or government?

## **Violet Ruiru 21:46**

It was the local communities who was selling the trees because they needed money to be able to purchase food for their families. And they needed to sell charcoal to to burn charcoal to sell. And some of them needed timber for construction. And most of that was for selling to other community members or selling to the bigger towns because of the demand for these things.

## **Jake Lloyd 22:18**

And is there still any conflict between are there still people who want to cut down the trees for the money? And are there people on the other side saying, no, we want to keep the trees for the caterpillars? Is there is that situation occurring?

## **Violet Ruiru 22:36**

Yes. Initially as a project started and putting up the by-laws or protecting the trees, there was, there were lots of conflicts. But the involvement of the village elders was very key because each of the village elder to task to ensure protection of the trees within the villages, and that helped to reduce the demand or the cutting down of the trees. And once the communities started seeing the re-appearance of caterpillars and started seeing that they can actually sell the caterpillars instead of the charcoal or the timber, they started becoming more protect of their trees.

## **Jake Lloyd 23:23**

What's that? What's the future of this project?

## **Violet Ruiru 23:26**

Sure. The community has very great dreams. They see themselves exporting the caterpillars to global markets. And they are helping working with them to explore that. They are also thinking about how do they increase the diversity of the nutrition for their communities so that beyond the caterpillars that the community can be able to produce other things like fish locally and within the learning center until the worker where the small laboratory is located, they are thinking of starting a fish farming pilot project to show their communities how they can really fish and how the waste from the caterpillars can be used for feed for the fish. They have also dreams of enabling their children to access education to high levels in DRC and in this small village in Cloaca. The children are very limited in terms of the access of education, so they have dreams of establishing a small training college where the children can advance their education. And they also have a dream of establishing the worker center to be a learning center where people from other universities can come. And right now there, they're using that to take in some students who come in for exchange program or learning experience from agricultural colleges. They come in there and they gain their work experience and they learn and gain that knowledge on Caterpillar production. And hopefully they are able to distribute that learning to other parts of DRC where they live. They also want to see this project grow so that it reaches more people in DRC, that they are able to embrace caterpillar farming as a way of income generation and also as a complementary source of their diet and beyond DRC. They have big

dreams for the whole of Africa and hopefully internationally that Caterpillar can be embraced as a great source of nutrition on people's diets.

### **Jake Lloyd 26:13**

It's amazing how it's grown from something so small into into into what it's becoming that that's really exciting that that vision for this for the future. Finally now, I've read a lot in recent years about how insects are a going to be a big part of our diet globally in the future, that nutritious and sustainable source of protein and all this kind of thing. And I would imagine people listening to this would have been inspired by the project you're describing. I just wondered for these people who've had what you're saying and think, think they'd like to explore something like this locally, where they live, what would you what would you advise them? What's the what's the best place to start?

### **Violet Ruira 27:02**

I, I think the starting point is to find out what is the indigenous knowledge that is available and what people hold. For instance, in this project, after realising how important caterpillars were held in their community, then it was easy to explore that line and built it up and also thinking about who will be involved in that project and also starting small and building up as you go along and learning lessons. Both of what has been successful and what has not been successful and just continue improving with time and listening to each other where ideas are conflicting, having ways to resolve and to listen on what would work best would be my greatest encouragement.

### **Jake Lloyd 28:09**

Fantastic. I don't have any more questions, but is there anything else you'd like to add?

### **Violet Ruira 28:17**

Just thinking about the impact of this project on the lives of the people in [*inaudible*] and just expressing the first hand changes that have happened over few years, it has been a great encouragement to see that you can have successful projects, but they need to be locally owned and they need to be locally driven and they need to involve everyone in the community for the success of the project and just seeing how nature has a way of bringing the gifts, the benefits of the nutrition to the communities. And as we think about climate change, I think it's very positive. We think about how do you synchronise maintaining all propagating natural methods of food security. And this has been one such project that has been very successful.

### **Jake Lloyd 29:20**

Brilliant. Violet, thank you very much.



## **Violet Ruiru** 29:23

Most welcome.

## **Jake Lloyd** 29:25

That was Violet Ruiru from the Salvation Army, talking about the caterpillar project in the Congo, Central Province of the Democratic Republic of Congo. And after the interview had finished, Violet and I carried on talking. And she mentioned to me how this caterpillar project is becoming known elsewhere in Africa.

## **Violet Ruiru** 29:44

I'm really excited to see how this project, how we link it up with our friends in Zimbabwe and how to encourage that into learning and the sharing of the knowledge.

## **Jake Lloyd** 29:59

Well, that I mean, that's a that's a future podcast episode as well. I think we should yeah.

## **Violet Ruiru** 30:06

We should plan for that.

## **Jake Lloyd** 30:07

Yeah. What stage are you with that?

## **Violet Ruiru** 30:15

We are still in the early discussion so just in the course of the one DRC, Zimbabwe, I learned about the DRC project and they say, well, in one part of Zimbabwe people eat caterpillars, but they have to work long distance as because of deforestation, it means the caterpillars have almost 16. They are found in the interior of the forests. We hope to be able to make some extent visit or something like that. We are a bit limited of funding, but we hope that this will be a project that will come through.

## **Jake Lloyd** 30:55

So if you'd like to make a contribution to the development of this work, then just visit their website [salvationarmyuk.org](http://salvationarmyuk.org) . And if you want to take a closer look at other stories from around the world of how insects can play a role in tackling food insecurity, land degradation and climate change, then visit [learn.tearfund.org](http://learn.tearfund.org) , where you can find [edition 115 of Footsteps magazine](#), which is all about insects.

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But that's it for this episode. Until next time. Bye for now.

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