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Safe Vegetables in Bangladesh / Jahangir Alam

When pesticides are used so much it starts to harm the community, MCC partners are looking to find natural ways to grow a safe vegetable. Go into the field with us to Bogura Bangladesh where MCC staff member Jahangir shows us exactly what that looks like and the challenges that come with it.

Md. Jahangir Alam

I realized that I think I have to I want to do something for the farmers. And later I got the chance to started my journey with MCC family. And through the MCC family, MCC helped me to fulfill my dream. And then under the food security project, I got the chance to directly work with the farmer to work we work for safe production. So yeah, this is the day that was a good opportunity for me. And it's still I'm happy to working with the farmers for the safe production to save their life and save the environment. And I'm happy to working for the protection of the environment.

Christy Script

Today we are in the field with Jahangir Alam whom you just heard. He spends his days in the field with MCC partners implementing methods that farmers in Bangladesh are using to grow a safe, pesticide free vegetable. I recently visited these fields to discover how these methods improve health, From the health of the community, to the health soil, the bees and pollinators, these safe methods are the start of a changing mindset in Bogura Bangladesh.

I am Christy Kauffman, and you are listening to Relief, Development and Podcast. A production of Mennonite Central Committee.

The project you will be hearing about today is implemented by MCC partner Grameen Unnayan Prokolpo (GUP) a Bangladesh nongovernmental organization. GUP helps farmers in Bogura who have chosen to learn to farm with natural pest control instead of synthetic pesticides. They have seen the negative effect of long-term use, abuse and overuse of pesticides on the health of farmers, consumers and the environment.

This episode was recorded fully in the field in Bangladesh, i hope you enjoy being immersed in the sounds of the different locations of the journey of a safe vegetable, from the field in the morning all the way to the customer in the store in the afternoon.

Christy Kauffman

so today I'm with Jahangir. Yeah. He and would you introduce yourself with your title and what is your role?

Md. Jahangir Alam

I am working as a Program Officer for MCC Bangladesh and I started my career with MCC family in 2008. Basically I am helping the farmers how they can produce the safe vegetables in their house lots through the partner organization. So I'm teaching them how they can introduce different kinds of integrated pest management techniques in their field and how they can produce the safe vegetables so I am always giving technical assistance to the farmers so that they can put in the same basic levels and

Christy Kauffman

safe vegetables meaning without harmful pesticides?

Md. Jahangir Alam

Yeah, without any harmful pesticides

Christy Kauffman

Did you grew up on a farm?

Md. Jahangir Alam

Our, my house was very close to the farm. That was not our own farm. But several times I went there and I have visited that farm. I had that chance, at the childhood time I had the chance to talk with many farmers to know about them and how they are growing and how they are selling that vegetables. So I had that opportunity.

Christy Kauffman

Did that influence what you decided to do later on here? You're working for a safer vegetable? Like what was your motivation to be a part of something that is creating safe food for people?

Md. Jahangir Alam

You know, when I did my masters at that time, I learned lots of things about the pesticide, what is the maximum residue limits? What is the tolerable limits of feticide, in food in vegetables and other things? Actually, that helped me a lot to learn about the safe food.

Christy Kauffman

so today, we're gonna be looking at the whole process, from harvesting the vegetables and seeing the technologies so the sticky traps and the compost and all these good things. And then we're gonna see the whole process today of harvest to market?

Md. Jahangir Alam

Yeah, yeah.

Christy Kauffman

As we are walking in the field, Jahangir points out several different kinds of traps, since there's different pests it's most useful for them to use several types of traps to control them. From sex pheromone traps with lures to sticky traps made from white or yellow bottles with a sticky oil coating

Christy Kauffman

And what is it that we're seeing these bottles

Md. Jahangir Alam

so this is the kind of a special type of sticky trap, yellow and white sticky trap. So this trap is really helps to catch the tiny insect tiny harmful insect.

Christy Kauffman

What is he harvesting here?

Md. Jahangir Alam

This is pointed gourd harvesting pointed goat kind of very famous vegetables in Bangladesh

Christy Kauffman

So there's the sticky trap. Is there other pest controls that we're seeing here?

Md. Jahangir Alam

Yes. He also he's using the pheromone trap, fruit fly is one of the kinds of harmful insects for these vegetables so easily it attracts the male and there is a lure inside that trap. And under that trap, use some soap water. So the lure will attract all the male insect and male insect come there and they fall the soap water and die. So that sex pheromone trap helps to control the fruit fly very effectively.

Christy Kauffman

In a field like this where there would be pesticides used, how would it look different than what we're seeing now?

Md. Jahangir Alam

The basic difference is that when the farmers use lots of pesticides and herbicides, usually the plant we observe that the plant not last for a long time.

Christy Kauffman

It won't last for a long time

Md. Jahangir Alam

Yeah, don't last for a long time. Usually this pointed gourd field is maybe now is six more than six or seven month that is of this pointed good field. Usually when they use lots of pesticide lots of hormones, a lot of herbicides. At the beginning they got very higher production at the late like after three or four months later, most of the plants died so it not last for long time.

Christy Kauffman

And how long would this last compared?

Md. Jahangir Alam

I think it will last nine month or eight months.

Christy Kauffman

Or eight months, and how many harvests? How often would you harvest in that time

Md. Jahangir Alam

at the beginning 12 times in a month. And now I think, eight times in a month,

Christy Kauffman

so you're getting more harvests out of more organic approach. Yeah, yeah. Yeah. And it's more healthy, right?

Md. Jahangir Alam

Yeah, it's more healthy. That main important thing is that it's more tasty. Yeah, and it's more healthy. And the important thing is that I think the farmer will show you. You will see lots of beneficial insect is here. But in the other in the other field, where the farmer says using the loss of pesticides, you will will not be able to find any beneficial insects in that field. So that is the basic difference.

Christy Kauffman

So yeah, like the pollinating insects and all of those the pesticides are also killing those?

Md. Jahangir Alam

Yes, you will see honey bees, you will see the ladybird beetles, you will see the green lacewing. So lots of beneficial insects and some beneficial ants also you'll see.

Christy Kauffman

And is there more beneficial insects than there are pest insects generally? Or is it about the same or

Md. Jahangir Alam

Usually the number of beneficial insect is very high in comparison with harmful insects. But when you spray the pesticide, the beneficial insect is more susceptible than the harmful insects. So that's why when the farmers use the pesticide, usually it kill all the beneficials, so that kill all kinds of beneficial organism even even in soil.

Christy Kauffman Script

The farmer of these fields we were walking through approaches us. He is an older man with a long white beard and is carrying a basket of pointed gourds he has just harvested this morning

Md. Jahangir Alam

So the farmer name is Muhammad Abdul Majeed and he's working in this project, I think more than eight years. At the initially the initial list is he use pesticides in her field, but currently not using any single pesticide in his field. He's only using the three different kinds of safe vegetable techniques in his field so he's producing totally safe vegetables now

Christy Kauffman

how long?

Md. Jahangir Alam

More than eight years

Christy Kauffman

within eight years? What was it like? Can you ask him what was it like before he was using the pesticide free methods?

Md. Jahangir Alam

The farmer explained that. Earlier, he was searching for alternative techniques, how he can produce safe vegetables. But it was very difficult to find out alternative later this project helped him, this project helped a lot to introduce different kinds of safe vegetable techniques and he also said that he participated in the courtyard meeting through this project implementing courtyard meeting for the farmers. So through the courtyard meeting, he learned lots of things about that.

Christy Kauffman

And you said he was looking for a way to do this before he found this project. Is that correct?

Md. Jahangir Alam

from the beginning, he was searching the alternative.

Christy Kauffman

Why was he can you ask him why he was motivated to find an alternative?

Md. Jahangir Alam

So he saw that so when he used the pesticide at that time, especially the earthworm, that killed the earthworm that killed the beneficial insect like ladybird beetle carabid, beetle, also that killed the honeybee. So he saw when he used the pesticide earlier than he saw lots of beneficial insects died just after spraying the pesticides. So that's why he was searching for alternatives,

Christy Kauffman

How long has there been pesticides used regularly in this community?

Md. Jahangir Alam

Okay. So, just after the liberation war, at that time, some, so we face like famine at that time. Many, many people died due to food crisis. So the Agriculture Department at the time they introduced pesticides. So just after the liberation war 1971 The Liberation War was 1971 so after the liberation or

the farmers started to use the pesticides, and I think from there, that is still many farmers are using the pesticides.

Christy Kauffman

To give you a bit of background context here, Bangladesh was a part of Pakistan before the liberation war in 1971, It was considered East Pakistan. The Physical distance and the cultural differences between East Pakistan and Pakistan created a divide and conflict between these 2 groups of people in very different locations. With the creation of Bangladesh after nine months of fighting there was a new country that was also the 7th most populated country in the world. A new country that had been busy fighting for the last 9 months rather than growing food to feed its people. The country was working to find ways to run, some of that included quick and seemingly harmless solutions like pesticide introduction in a time of food shortage. There was not regulations for how to use these pesticides that were now introduced into this new country. War and conflict often cause food shortages, we see this in nearly any conflict.

MCC came to Bangladesh in 1971 for relief in the wake of natural and human-made disasters at the time of the country's liberation. They worked for job creation and food security by introducing nutritious winter vegetables and farming techniques. Now MCC is learning that food security is not only about getting healthy food to eat but ensuring that the methods for producing that food considers the safety of farmers, their families, communities, and the earth.

Christy Kauffman

How has it changed from before the pesticides were introduced? Like he wasn't using pesticides when they weren't introduced yet? But after they were introduced, now he's not how is it different?

Md. Jahangir Alam

Oh it's a very good question.

Md. Jahangir Alam

He is very happy because sometimes he earlier he did that before the liberation where he didn't use the pesticides and after the liberation war he started to use the pesticides and now he's not using the pesticide. The basic difference is that now the many people now know he's producing safe vegetables easily come here to buy the safe vegetables from him. So he is now feeling very proud. Proud of this.

Christy Kauffman

So he's kind of set apart. Yeah. And respected for the safe vegetable. Yeah.

Md. Jahangir Alam

Yes, many people respect him that he just mentioned.

Md. Jahangir Alam

because he produced lots of different kinds of vegetables and then the different kinds of cauliflower then red cabbage, So, that is also attract the other people to come here to buy the different kinds of vegetables.

Christy Kauffman

So, he has a wide variety

Md. Jahangir Alam

Yeah, we usually introduce him because So, in Bangladesh context like if the price of pointed goat is if the one farmer to farmer get the higher higher return from that. So the next year, all the farmers will grow this one and then the market price will go down. So that's why we throw our project we advising our farmers not to grow only one crop, please at least grow five or more crops. So that if the price of one crop goes down the other crops it will it will make more profit with the sale of other crops. So we are also helping the farmers for the crop diversification not not mono crop, please go for multi crop.

Christy Kauffman

Along with encouraging crop diversification, we also see how farmers are now fertilizing without chemicals. *The farmers make vermicompost by feeding manure to worms, which transform it into beneficial fertilizer. They also make another kind of compost, tricho-compost, a mixture of seven readily available, natural ingredients plus Trichoderma, a fungus that controls soil-borne diseases. This is a process that takes time a and care*

Md. Jahangir Alam

Usually from the project we gave the tricho compost. whenever he started to produce the tricho compost, he observed that so the this kind of compost is helping to increase the water holding capacity of the of the soil. (Asks farmer question in Bengali) So this compost also helping him to reduce the cost of the chemical fertilizer because he's now using less and one two chemical fertilizer in his field.

Christy Kauffman

So it's not only pesticide free it's also chemical fertilizer free so this is a part of it being a safe vegetable.

Md. Jahangir Alam

Yeah. Through our project we are promoting two types of compost on is the tricho based compost we call this tricho compost and other is the vermi compost. So that they can use in their field and they can, they can reduce the use of the chemical fertilizers so that they can minimize their cost for chemical fertilizers and as well as pesticides.

First she needs to collect the cow dung and seven to 15 days here. And later, he released the earthworm a special type of earthworm here

Christy Kauffman

When did chemical fertilizers start being used is that at the same time as pesticides?

Md. Jahangir Alam

So, maybe the same same time when after the liberation war, the liberation happened in 1971. So, after that, along with the pesticides, some private company, some private company, come to the village, they visited the village and they did some promotional activity and they they sprayed the chemical fertilizer in in different plots, and they show how the chemical fertilizer helping them how that plant is changing after the use of the chemical fertilizers. So, they did lots of promotional activity at that time and from that, the farmer started to use the chemical fertilizer. So, at that time, we had food crisis and in Bangladesh, so, people are suffering a lot. So, to increase their production, government also promote that kind of promotional activity.

Christy Kauffman

Jahangir then gets out a chart to show me the records of the tests that they have done on the farmers' soil.

So, this is one this is like I told you that through this project, we are helping the farmers to test their soils This is the testing result we call it. So, when we deliver the courtyard meaning we call it this is kind of prescription not for your health your soil. So, based on that crop, what crop is growing in your currently you are growing and in future what group will grow so based on that, they will prescribe you based on that because different crops need different amounts of nutrient. So in future what crop we will we will grow first they will testtheir soil and they will give you the update about the nutrient status this is the nitrogen is nitrogen urea supply this is kind of nitrogen like zero 8% And then phosphorus is 11011 0.95.

Christy Kauffman

Jahangir goes through several different nutrients listing quantities and recommendations as he goes through the chart he holds in front of me. A row on the chart for each of the farmers in that community that are a part of the program. All to make sure the farmers exactly know what composts and how much will benefit their fields most.

We next make our way in our vehicle to the processing center, this is where the vegetables are brought to be cleaned and packaged and sent to the supermarket, We chatted in the car about the partner's interactions with the pesticide company when they first started promoting pesticide-free methods in the community.

Md. Jahangir Alam

And some pesticide company that when we install that billboards some pesticide company here who are working at this at "oh we are why you are hampering our business, you are hampering our business."

Greg Vanderbilt

Yeah Jahangir, why are you hampering their business?

Md. Jahangir Alam

Yeah, good questions. Then I said we are hampering your business to save the community to save the world.

Christy Kauffman

So we walked into a pink, a building with pink walls and fans are going over all of the vegetables that we're seeing. There's some packaged vegetables on the ground currently.

Md. Jahangir Alam

We have a washing tank there so first when the farmers bring their vegetables. So there they have already washed that vegetable. This is red amaranth. Now they're kind of like removing the moisture through this fan. They are removing the moisture and later they will do the packaging. You can see the farmers coming here with their vegetables

Christy Kauffman

farmer Mohammed is coming in. And he's a huge yam

Md. Jahangir Alam

really tasty. Wow. Wow,

Christy Kauffman

That's so big. So what vegetables do we have here?

Md. Jahangir Alam

So this is Indian spinach. This is the pointed gourd and this is plantain. And this is the bottle gourd.

Christy Kauffman

They look very healthy and very good.

Md. Jahangir Alam

And here are some vegetables they have already packed. This is the logo. This is the brand name. This is the organic village we put this brand name here. And this is the there is a slogan like a safe food safe life. So we put and this is kind of we made these stickers for the promotion of our business and for selling our vegetables are those two parts, they will put the weight and they will put the price there.

Christy Kauffman

So it's it is a red tag that says organic village, safe food safe life. Yeah. And it's packaged and this will go to the store like this.

Md. Jahangir Alam

Yeah, package ready to sell in the Super shop. Also we encourage the woman if if any woman or any female they have their own production like they have one banana plant that they want to sell this man and afford this value chain and it's totally pesticide free. So he or she can she can mean and she can sell him.

Christy Kauffman

Anyone who grows pesticide free can come and bring their vegetables here and sell through here.

Md. Jahangir Alam

We prefer our farmers to come. First we prefer our farmers but other people if they produce without pesticide sometimes we allow them to come here and sell their product. Not the commercial farmer only the women we grow very small scale we know about that he's not using any pesticide in in her crops. And yesterday he collected the price from the conventional market based on that we like he will increase the 15% price and then you will pay to the farmer Oh, this is, they are doing the washing this is kind of washing tank.

Sounds of washing*

He's washing with water also we add little vinegar to remove bacteria and other things we use some vinegar this vinegar to wash the vegetables.

Christy Kauffman

So our farmer that was just harvesting is now weighing his gourds Yeah, so you said he called this a van.

Md. Jahangir Alam

Yes, we call this van.

Christy Kauffman

Okay, so I'm going to describe what it is because it's not what a van in North America looks like. It is a bike with kind of a truck bed on the back. So he will be transporting the vegetables with this van. So this is I think that they're going to be bringing some vegetables out and loading it up to take this morning so that'd be good action to get

Christy Kauffman

So we just entered the touch and take grocery store it's a superstore in Bogra and we are surrounded by customers walking through the aisles and in the back of the store there is an area there's an area where there's blue containers selling organic village produce that we saw this morning being packaged and processed and harvested by our farmers.

Christy Kauffman

While we were at the grocery store we wanted to talk to some of the costumers that were buying these safe, pesticide free vegetables

Is this the first time that you've bought a pesticide free vegetables here?

Md. Jahangir Alam

Okay, so it's not past time for him so earlier although He also bought these vegetables, okay, so you know that this is organic, but sometimes for other people is little bit confusing. Some people also thought that oh, they maybe buy from the market and they put the organic sticker these vegetables so he just suggest us maybe we need to do more like promotional activity so that the other people can come and they can buy.

Christy Kauffman

So he would he thinks that we need to communicate better.

Md. Jahangir Alam

Yeah, we need to communicate better way to the customers. Either it is organic or not. But we are here so now he is saying as you're talking with them so now is the good thing. I think is good for building trust.

Christy Kauffman

Will you would in the future come back and buy Organic?

So that customer that we talked to was convinced by our interviewing people in the store that now he trusts that these vegetables are in-fact pesticide free, it shows a bit of the skepticism that the project has to get threw, people may not trust that people mean it when they say, when they say that their vegetables are safe.

We talked to one other customer that had a little bit different reason for eating pesticide free vegetables

Christy Kauffman

So wait, what did that customer say?

Md. Jahangir Alam

customers says, regularly I go to the gym. And so that's why I need the safe food. That's why I'm here to buy the safe vegetable.

Christy Kauffman

He needs to save food so you can go to the gym and be healthy yeah be strong ripped

Md. Jahangir Alam

six pack body yeah.

Transition with music

Let's transition back to the field with our farmer Mohammad

There's so many different parts to the project, there's the fertilizer, there's the pesticide side free pest traps, and there's the market yeah. What difference do all of those together make and how important is it that all of them work together you

Md. Jahangir Alam

So you know, the like, as a human being, I think the our health is very important. Soil is very important for all kinds of crop. So, you have to maintain the soil health. So, this is very important for safe production is the first step. So, this is you have to prepare your land, if your land is not good. So, then then the pheromone trap or the sticky trap, whatever you use, if the plant will not grow well, then the pheromone trap is a worthless I think, and also the compost these two composts is playing a very important role for the productivity of the soil to maintain the productive productivity and soil fertility.

Christy Kauffman

So, what difference does it make for him?

Md. Jahangir Alam

earlier it was like, We know very little about the safe production. Now, through this project, we got lots of information and now we we are able to know about the safe production techniques, even this project is helping like providing hands on training in the field level and helping us to know about the safe, lots of safe production techniques is is helping us and we are observing the difference. Big one big presumption is that earlier like they have a kind of perception that without pesticides, you cannot produce anything, but now he believes that and he know that without without pesticides, now we are able to produce the produce vegetable so that is the big difference.

Christy Kauffman

And safe ones are safe one Yes. Why did he decide to become a part of this?

Md. Jahangir Alam

When you use pesticide, the pesticide contract said that after using you have to wait at least seven days or 10 days. So before seven or 10 days, you cannot harvest your vegetables, but what happens, some farmers, they just spread the morning time and the evening time they harvest their vegetables or they go to the market and sell that. So you're getting benefit, but you are you are harming other people, you are doing harm. So this is not a good practice

I have a dream that in future currently we have no restriction for the farmers who are growing safe vegetables, but other countries I saw that they have some kind of registration process and some kind of monitoring process like many farmers in this community, they are producing the same vegetables, but whenever they are going to sell their product to the market as a safe vegetable as a safe product. So most of the people's ask So do you have any any kind of registration or any kind of study certificate for that? So currently, they have no that kind of certificate. . So I think in future government will make that kind of facility for the farmer and they will like select the farmers they will be involved in kind of certification process and they will be able to sell their product in different market and also I think the government will develop we have many kinds of conventional market. So I think that in future the government will develop some kind of inside the market. They will develop a separate area for the same visitable groups so that any set visible growers they can go there and they can sell their visitable separately, not with the conventional visitable thank

Christy Kauffman

Thank you for showing us around today.

Md. Jahangir Alam

Thank you.

Thanks for listening.

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This episode of Relief, Development and Podcast was produced on the traditional land of the Algonquin, Lenape, Nanticoke, Piscataway, Shawnee and Susquehannock people groups. This episode was hosted and produced by me, Christy Kauffman. The head producer is Leslie Bector.

Thanks and take good care.