

## IFPRI Podcast Series Episode 4: Doing Research in a COVID-19 World

**Sivan:** Hi and welcome to “Research Talks”, a podcast series that explores how research is making an impact on people and policies (with a focus on the ‘how’), brought to you by the International Food Policy Research Institute, IFPRI. I am your host, Sivan Yosef. This month, we bring you a special edition, looking at how two IFPRI researchers and their teams are responding to the threat from the coronavirus to food and nutrition security and livelihoods around the world. IFPRI has been curating a collection of analyses about all different aspects of COVID. You can find it by googling IFPRI, COVID and the word spotlight.

We have two short interviews in this episode. The first is with Xiaobo Zhang, and the second with Rob Vos.

First up is Xiaobo Zhang, who spearheaded a telephone survey with nearly 2,400 small and medium sized enterprises (SMEs) in China to find out how they have been impacted by the pandemic’s restrictions.

**Xiaobo:** My name is Xiaobo Zhang, Senior Research Fellow at IFPRI, also a Professor of Economics at Peking University in China.

**Sivan:** So, when you first heard about Corona, were you thinking about it in a research way, as a research professional or was it more personal for you?

**Xiaobo:** No. At that time mainly it was personal. I was more concerned about the health and safety of the family members, friends, and others back in China.

**Sivan:** When did it first occur to you that you wanted to study the impact of coronavirus on Chinese firms?

**Xiaobo:** I think a few weeks after Wuhan was locked down. By early February, we heard a lot of concerns from entrepreneurs because all the businesses were shut down. They had a big problem surviving. And that can be solved, probably if you do something about the millions of small and medium enterprises.

**Sivan:** So, what was your first step in developing your research question?

**Xiaobo:** The first thing we want to understand what's going on, what's the impact on the SMEs. We have done surveys in China between 2017 and 19 on almost 10,000 small and medium sized enterprises. So, we already have the contact information of them. So we thought we should seek the opportunity to have a rapid telephone interview on them.

**Sivan:** So, how did you reach out to these firms?

**Xiaobo:** So, I think this was a good opportunity because most businesses were shut down during the Chinese New Year. Entrepreneurs stayed home. On the other hand, the student enumerators also were confined to their homes. So, they had time. So, when they announced a call for volunteers to do the interview, within one hour more than 150 students signed up.

**Sivan:** Wow, 150. That's incredible. So, did you have to train these student enumerators. Did you have to train them in order to...

**Xiaobo:** We trained them before. They all participated in our survey in previous years. So, we tried to select the best enumerators based on their previous performance.

**Sivan:** And what kind of questions did the enumerators ask these business owners?

**Xiaobo:** First, have you restarted your business or not? How long can your business sustain with your current cash flow? What other major challenges do you face? What kind of policies do you prefer? At that time, we gave a list of government policies; something like that.

**Sivan:** Did the enumerators run into any challenges when they were doing the interviews?

**Xiaobo:** As always, for the telephone interviews many people hung up when they see the unknown numbers.

**Sivan:** What was the response rate in terms of how many people they called, and how many people agreed to do the survey?

**Xiaobo:** Fifty-two percent (52%) among the valid phone numbers. So, the response rate was very high. One reason is because the topic is very relevant for entrepreneurs. Secondly, entrepreneurs had the time. So, in normal times, I don't think the response rate can be as high as 52 percent, because they are extremely busy.

So, I'm working with a few professors in different universities, we formed an alliance on the survey. We called it the Alliance for Enterprise Survey for Innovation and Entrepreneurship in China. When the data was ready, we immediately started to analyze the data. So, within two weeks we wrote about ten research reports and posted in social media and major Chinese medias and even English media.

**Sivan:** Had you ever undertaken research so quickly in terms, identifying your research question and then pulling together surveys so fast?

**Xiaobo:** Yeah, definitely. It's the only time; the fastest. We only started on February 5th, and then our first blog post came out, I think two weeks. The first was posted on February 18th.

**Sivan:** Wow. Wow. That is very fast. Could you share with me some of your findings?

**Xiaobo:** Yes. First of all, the shutdown has a huge impact on the SMEs. As of February 10<sup>th</sup>, the official date to restart business in many parts of China, 80% of them still not start yet. And secondly, the impact varies across sectors and across regions. For example, the export sector suffered more than the non-export sector.

**Sivan:** Why is that?

**Xiaobo:** So, some workers couldn't come to work, because at that time there were a lot of restrictions on labor mobility across provinces. The second reason is, they normally rely on a few large suppliers.

**Sivan:** So, everything in the chain was getting affected? All parts of the chain were affecting each other.

**Xiaobo:** Yes.

**Sivan:** What are some of the other findings?

**Xiaobo:** The other finding is the agriculture business suffered a lot. mainly due to the disruption in logistics. If you think about the many Chinese villages, they are pig farms, poultry farms, so they need to get the feed on a daily basis. They also need to transport, like the chickens or pigs to the market, but at that time, many villages had road barriers, and didn't allow trucks to travel across borders. More than 60% of them reported the disruption in logistic was the largest problem for them, much higher than other sectors.

There are also large regional variations. So, in some areas like in Gansu Province is one of the most remote provinces in China, the rate of infection is very low, but the resumption of production was also very low, among the lowest among the seven provinces we surveyed. So initially we were wondering why they didn't start production despite such a low infection rate? So, when we looked at the data, we found it was because of the disruption in the logistics. So, trucks couldn't travel to other provinces. So that has a big impact on the resumption of productions. Even in areas without much virus infection.

**Sivan:** So, all the provinces economically are dependent on each other.

**Xiaobo:** Yes. We found that the economies are interlinked to each other. So, it's much harder to restart the business than what we thought; because it's more like you need many parts to work together. If there is one part missing, the production cannot be resumed. Another finding is the service sector suffered more than the manufacturing sector. This is mainly because the decline in demand.

**Sivan:** Are there any research questions that you think we still need to explore? And do you have plans to conduct this survey again?

**Xiaobo:** We are planning to do the survey in July and August. Meanwhile, all questionnaires have been adopted by other countries. For example, Mexico and France are planning to do a similar survey on SMEs. They have translated our questionnaires into Spanish and French. Ethiopia also wants to do a similar survey soon. So, we already post our survey instrument in different languages on the web. So, it is publicly available.

**Sivan:** Is there anything positive that you've come across?

**Xiaobo:** A positive is during the process of the survey, I felt there are so many professors, students, they really want to help the country. Most of them are volunteers; they have done a lot of research in terms of data collection, entering the data. So, I do feel during hard times, people want to do something to help the country.

**Sivan:** I think what you're saying is absolutely right and I've read a lot in the last couple of weeks that during times like these, when people have a sense of agency, where they're able to do something concrete, it really helps them in terms of dealing mentally and psychologically with such an unprecedented situation.

**Xiaobo:** Yeah, also our enumerators told us, they felt so proud they could contribute to something because they already stayed at home for a few weeks, the college students. They really want to participate in the surveys.

**Sivan:** A big thank you to Xiaobo for his time. You can look through his survey, which has been translated into several languages, on the IFPRI website. He also has a few blog posts on this interesting research on IFPRI's COVID spotlight on the IFPRI website.

I was grateful to also be able to interview Rob Vos, who is IFPRI's Director of the Markets, Trade and Institutions Division, who along with colleagues, did very fascinating work modelling the impact of COVID on global and regional food security. They used the MIRAGRODEP model.

**Sivan:** So, let's start from the beginning. Where were you when you first heard about coronavirus? What were you doing?

**Rob:** Actually, when I first heard about it was, I think the end of December of last year. I was still vacationing in Europe when the first news broke out and of course it was not very clear what was going to happen. When it started spreading from China to Europe then the things that came to mind is what has happened in previous crises, whether this would not cause disruptions in food sectors and particularly also could lead to food shortages and drive up prices. So for our Food Security Portal, we monitor staple food prices every day and check on the volatility in those markets, or that was the first check we did, but at the time there was not much movement there, so that gave some rise for saying, well, maybe the situation is not so bad in terms of the food security issues and actually still today, those markets remain remarkably stable despite the outbreak of the crisis.

**Sivan:** Now how did you develop your latest research question?

**Rob:** So then looking at the basic staples markets we said, well, it seems things are still functioning. So then, first question is why would that be? Part of this is, it's the type of food that can be easily preserved. Also, particularly for food that's being traded internationally, it goes all in containers, doesn't require a lot of people to do that or that have to closely interact with each other. So as long as that logistics keep functioning and production levels are good, that should work and may also continue working well. But when looking at other issues like other types of food production, like vegetables and fruits that would require more labor that could be affected through the containment measures. So that's where we start using the models to try to estimate what might be the consequence of a serious global economic downturn not just in Europe, in China, or in the United States, but particularly also what would happen in the poorest countries in Asia and in Africa.

**Sivan:** Ok, so what kind of model did you use?

**Rob:** The model we have is it's a model called MIRAGRODEP, and that's a global model that looks at some detail at agriculture markets, but also other sectors of the economy. It looks at trade issues, looks at prices, it looks at incomes, it looks at employment and then takes all the interactions to simulate through if you get the shock or a policy change in one part of the system how that might affect other sectors within a single economy or what could affect and spill over from one country to the next.

**Sivan:** Does the MIRAGRODEP model that you used, does that have any limitations?

**Rob:** Well, like any model, it's as good as the assumptions that you make. There are many limitations. The model makes certain assumptions of what producers do if they see either prices for their products fall, whether they're going to produce less or just produce less for the domestic market or maybe produce more for the export markets. But to be clear what we're doing is not to make a prediction, but just to do a scenario analysis.

**Sivan:** Can you talk a little bit about your findings on the different types of shocks and how those affect different regions of the world?

**Rob:** So, what we found is that basically, if you get a one percentage decline in the global economy, then particularly the poor in Africa and South Asia would be hit hardest. And the poor in Africa would be hit harder particularly if it also means that international trade declines strongly. And also that there will be disruptions in doing trade also because of disruption in logistics that may drive up the cost of doing trade or not being able to do trade at all. It is simply because African countries are a lot more dependent for their economic livelihoods on international trade than for instance South Asia where also a large number of the current poor are located, which are protected because of the size of India which is a country less dependent on international trade but would be much more affected if also that country gets a serious lockdown in economic activity because of the containment measures.

**Sivan:** Are there any models that are looking at these shocks alongside the actual, the shocks caused by people actually dying from Coronavirus? So, kind of like how the health sector uses DALYs?

**Rob:** No. We haven't done that so far, because that would be a bit difficult to do at this point. Until today most of the people that have died because of the coronavirus disease are people in higher age categories; so people above 70 years old. As a result, that does not impact directly on the labor supply. Of course, this may change if the virus spreads more across Africa.

**Sivan:** Do you feel that your findings are...are they optimistic or too optimistic in a way in terms of the projected impacts?

**Rob:** Well, we won't know until we've seen the results, right? But first people do say that we are; we maybe have been too optimistic because at first we had a title in one blog that we published that said that there was no concerns for food security yet. We hope that people would read the underlined YET; because we didn't know yet what the impact would be. We were mainly focused on the availability of food supplies, particularly of basic grains, and that the repercussion effects of the global downturn that would still take some time to take effect. Now what we know now is probably the economic downturn might be much stronger than one percent. So, you can imagine that if the global economy goes down by two, three, or four percent, that we get the multi fold of the calculations we did. So, the odds for now is that probably we could be heading towards a recession that is at least as strong as the global financial crisis of 2008 and 2009, when the global economy went down by two and a half percent more or less. So, the thing we are also now warning for is that now when it's even less logical to introduce trade restrictions in a market that's now relatively stable, such policies could function as a destabilizer to food markets.

**Sivan:** Have you come across anything inspiring, maybe in the research field that is not all gloom and doom?

**Rob:** I've seen an enormous amount of openness to share information. You see that now, that a lot of researchers are teaming up rather than competing with each other in trying to find solutions, vaccines, medicine, and so on. And hopefully, that can continue since this is a pandemic so that means it's global; it's affecting all of us without discrimination. So, the more we can do together, the better.

**Sivan:** Many thanks to Rob Vos for his time in sharing these findings. Rob and his colleagues have posted various blogs that explore this research in more detail. These posts can be found on the COVID spotlight on the IFPRI website, which can be reached by googling IFPRI, COVID and spotlight. I hope that you and your family are coping as best you can during this time. Don't forget to subscribe to our podcasts so you don't miss a single episode of Research Talks from IFPRI. Til Next Time.