



Food Security

Professor Fanzo on Feeding the World

According to the United Nations, the world's population, now 7.3 billion people, is expected to grow to nearly 10 billion by 2050. How to ensure that folks everywhere have access to nutritious, affordable food is the focus of Jessica Fanzo's work as director of the Global Food Ethics and Policy Program at Johns Hopkins SAIS. Fanzo joined SAIS a little more than a year ago as the Bloomberg Distinguished Associate Professor of Ethics and Global Food and Agriculture at the Johns Hopkins Berman Institute of Bioethics. She talked recently to *SAIS Magazine* about her work and about how the concept of food security is evolving to take into account shifting demographics and a changing climate.

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A portrait of a woman with dark, curly hair, smiling. She is wearing a dark blazer over a light-colored blouse and a necklace with a small pendant. She is also wearing large hoop earrings.

Fanzo is the Bloomberg Distinguished Associate Professor of Ethics and Global Food and Agriculture at the Johns Hopkins Berman Institute of Bioethics and director of the Global Food Ethics and Policy Program at Johns Hopkins SAIS.

Q&A

Q: What does food security mean today— is it simply ensuring that people around the world, even in the poorest regions, have enough food so that they do not go hungry?

JESSICA FANZO: The idea of food security and food insecurity is evolving. Food security is when you have physical, social, and economic access to safe and nutritious food.

But there are many people who are food insecure. They are either undernourished—there are about 750 million people worldwide who are not getting adequate food—or they are living in a context of obesity. There are now more people today who are obese than under-nourished:

Today there are more **OBESE PEOPLE** than under-nourished worldwide.





FOOD DESERTS:

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About 2.2 billion people worldwide are overweight, and a lot of these people are food insecure, too. It seems strange to call them food insecure, but they are. They are getting cheap, unhealthy foods and often living in places without access to nutritious foods. So, it's a complicated issue, but we know for sure that there is a lot of food insecurity around the world.

Q: In what type of situations are we seeing people without access to safe and nutritious food?

JF: Well, first of all, food security is not just a developing world issue. About 25 percent of the United States is food insecure, too. So it's not only in the context of low-income countries but also in the context of very high-income countries that food insecurity is a problem.

In the United States, if you go to a place like Baltimore where Johns Hopkins is, there are what you call "food deserts," where the only place people can buy food is at a corner store or at a liquor store where the food is behind bulletproof glass. That's not having physical and social access to quality foods, right?

In developing regions such as in Africa, typically most of the population is rural, smallholder, or subsistence farmers who can't produce enough to feed their families. So they often have to travel to a market to buy food. That is often difficult because roads are poor and access to markets is limited. And often what is available at these markets is very limited. It's a lot of staple foods, and there are not a lot of fruits and vegetables or a lot of variety.

In places such as Asia, say in India or Timor-Leste, the food environment may be poor as well. People might be eating street food or buying packaged instant noodles. Why? Because it's easy and cheap and convenient for moms to cook when they don't have a lot of resources.

And then there is the example of food insecurity in conflict areas, like Syria, where the country becomes very reliant on imports and aid, and food prices can go up in an atmosphere of social unrest and food riots.

Q: If there was any population that you would target first to end food insecurity, what would it be?

You can't just give people calories, you need to ensure they are eating healthy foods from a variety of sources.

JF: Children and new mothers. There is a huge focus on what we call “the first 1,000 days” in the nutrition world. The first 1,000 days is the period from when a child is conceived until they are about 2 years old. It's really the best time to intervene in a child's life if you want to impact and reduce under-nutrition. There is a program called Alive and Thrive that is working to deliver complementary foods to young children who are still breastfeeding. And it's been very successful in Bangladesh, Ethiopia, and Vietnam where it has been implemented.

Q: And for the broader set of people facing food insecurity, what are some of the approaches to solving this problem?

JF: Even today, the agricultural sector is focused on calories, getting enough calories into people's stomachs so they aren't hungry. They are focused on improving production of big commodity grains like corn, rice, and wheat, which are not so nutrient rich. But you can't just give people calories, you need to ensure they are eating healthy foods from a variety of sources.

So I think you need to look across the entire food value chain. To fight food insecurity, there needs to be a change in production systems to ensure that foods like fruits, vegetables, and animal-source foods, which are considered more

nutrient rich, get to people that need them. But because these foods are usually perishable, we need to be able to store them and transport them and get them to market on time. And probably the last key issue is making these foods more affordable. Because they can be very costly, and people often can't afford them.

There is also a lot of work being done to encourage rural farmers to adopt different production practices so they produce more diverse foods. It makes sense not only for nutrition but as insurance against climate change. The more you diversify, the less likely you'll get wiped out if one crop fails due to changing weather patterns.

For example, in Cambodia, rice farmers are creating mixed systems in which you can add fish and ducks to the rice paddy and they all play a role in its ecosystem. Fish swim in the paddy, they fertilize the rice and they can be a source of food. If you add in ducks, they swim in the paddy and can eat fallen seed, and their manure can become a food source for fish. So in this mixed system, not only do you get more nutrition, but it improves the ecosystem of the farm as well. The duck-fish-rice ecosystem has also been successfully implemented in places such as Bali and Vietnam.

Q: Earlier you mentioned that obesity is a growing part of the global challenge of food insecurity. Talk about that for a moment.

JF: In some ways, obesity has surpassed under-nutrition as a problem because there are so many more people who are obese. As I mentioned, there are about 2.2 billion overweight people worldwide. It's a complex problem because, especially in the U.S., many people feel—wrongly—that obesity is the result of personal choices, while hunger is often considered the product of larger systemic issues. But I think we need to focus on both at the same time.

Research shows that people who are born under-nourished have a higher propensity to become obese as adults. And obesity is related to a range of non-communicable diseases like diabetes, heart disease, stroke, and cancer. I feel that by addressing one you address the other.

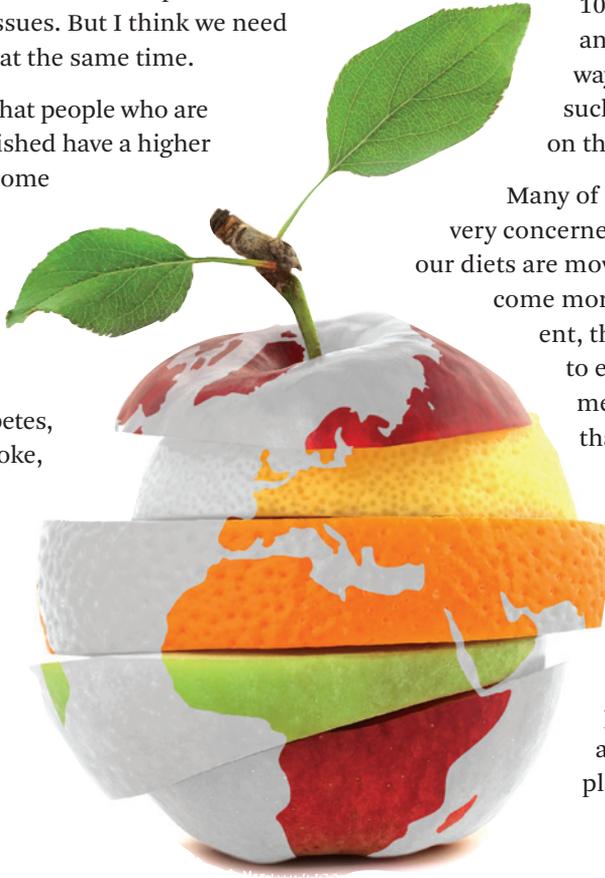
Q: As you mentioned, by the year 2050—just 33 years from

now—the world population will be close to 10 billion people. What kinds of changes will we need to make to feed everyone living at that time?

JF: I think people are spending a lot of time thinking about that, especially in the context of climate change. How are

you going to feed 10 billion people—and feed them in a way that doesn't have such a huge footprint on the planet?

Many of my colleagues are very concerned about the way our diets are moving. As people become more and more affluent, they typically want to eat more and more meat. We're seeing that, for example in China, but there are also huge environmental costs to that. We have to figure out a way to feed people well while also protecting the planet's health.



How are you going to feed 10 billion people—and feed them in a way that doesn't have such a huge footprint on the planet?