

STUNTING: A COUNTRY'S LASTING BURDEN

An Interview with Jessica Fanzo

Stunting, or low height for age, currently affects more than 165 million children worldwide. It is caused by long-term insufficient nutrient intake and frequent infections before age two with effects—delayed motor development, impaired cognitive function, and poor school performance—that are largely irreversible. Timor-Leste has the third highest stunting rate in the world—around 58 percent for children under five. Jessica Fanzo, director of nutrition policy at Columbia University's Center on Globalization and Sustainable Development, is working with the Timorese Ministry of Agriculture to integrate nutrition into the country's food security efforts. She spoke with the *Journal* about what nutrition-sensitive agriculture entails, and the progress made in Timor-Leste.

Journal of International Affairs: In Timor-Leste, around 60 percent of children under the age of five are chronically malnourished, and almost 39 percent suffer from anemia. You are working with a program called Seeds of Life embedded within the Ministry of Agriculture to improve food security through increased productivity of food crops. Can you tell us a bit more about this project, and how you got involved?

Jessica Fanzo: I was originally asked to work with Seeds of Life to develop a nutrition-sensitive agriculture strategy, which was shared with the Ministry of Agriculture. Timor-Leste has a long history of conflict. They were colonized by Portugal and almost immediately after the Portuguese left, Indonesian forces invaded the country. Many atrocities were committed against the Timorese, including deliberate starvation. The UN called for withdrawal, but on their way out, the Indonesian forces decimated the infrastructure of the country. UN and Australian peacekeeping forces remained in the country for nearly ten years and left in December 2012. Timor-Leste is an interesting case because it has only recently become independent. Despite being considered a middle-income country with about \$11 billion

worth of oil off the Timor Sea, it has dismal health and nutrition indicators, with one of the highest burdens of undernutrition in the world. They are a population of approximately one million people, and 60 percent of children are chronically undernourished or stunted. They are not simply short for their age, but are also

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cognitively impaired, and this can become a multigenerational issue that could take a long time to mitigate. Stunting is like a photograph of a country's history. When you have been neglecting a country for so long, it shows on the body of a child. With the help of Seeds of Life, Timor-Leste hoped to improve their agriculture outputs and increase food production. They grow mainly staple crops like rice and cassava, so the goal when I arrived was to improve the nutritional aspects of their agriculture program by integrating nutrition into their agriculture approaches, and advocate for more investments in nutrition-sensitive agriculture interventions.

Journal: What are some of the challenges of working with the government and trying to influence the government?

Fanzo: It is really hard to convince the Ministry of Agriculture to think about agriculture from a nutrition perspective, because they are really thinking about increasing productivity for income generation. It is interesting to discuss the data on undernutrition with ministers or other Timorese in the country. Sharing and discussing the stunting data, where more than half of children are chronically undernourished, is difficult to swallow because of the insinuation that they are less smart. Many in the country respond to those figures by saying, "We are a wealthy country. These numbers are not real. The Timorese are naturally short." Data is very political, and trying to communicate it in an effective way is very challenging. Not everyone trusts numbers, so it is important to communicate these data in a gentle and rational way.

Journal: Among the policies that you suggested to the government, was any of those implemented?

Fanzo: Yes. Seeds of Life is implementing some of the interventions. For ex-

ample, they introduced new types of crops that are conducive to growing in the local environment. Also, when I was there, I did some training with the Seeds of Life extension staff that currently sits in the Ministry of Agriculture. That is a first step towards building capacity. If you can teach extension agents to know more about nutritious crops, they can then have a conversation with the farmers about producing and consuming more nutritious crops.

Journal: You have also worked with REACH, a joint partnership between the United Nations Food and Agriculture Organization (FAO), the World Health Organization (WHO), the United Nations Children's Fund (UNICEF), and the World Food Programme (WFP) to end child hunger and undernutrition. Can you tell us a bit more about this initiative and your work there?

Fanzo: REACH is an interesting initiative because it was born from the historically poor coordination and duplication of the United Nations' work in nutrition at the country level. Country governments were demanding better coordination among UN agencies as they engaged with them. WFP, FAO, UNICEF and WHO—the big UN players in nutrition—formed an interagency collaboration called REACH (Renewed Efforts Against Child Hunger) to work at the country level and sit with the government. They coordinate, convene, and work with NGOs that do the ground-work. REACH tries to figure out who is doing what and where in the country, help the government, and ensure good coverage without duplication. REACH compiles stakeholder mapping and presents it to governments by saying “this is what these 1,000 NGOs and UN agencies are doing in your country.” I was based in Rome, working in about twelve countries. I focused mainly on agriculture nutrition as well as monitoring and evaluating the governance structures of REACH coordination efforts.

Journal: Could you give us an example of something that REACH has done that you think has been successful?

Fanzo: REACH has what they call “REACH facilitators,” who sit with the government and bring the UN and other relevant stakeholders together. These facilitators, for example, were very important in Sierra Leone since they helped drive the formulation of the multi-sectorial nutrition strategy at the national level. They brought different ministries together from several UN agencies to sit around a table. They created working groups and developed a very strong nutrition strategy. So REACH is definitely one of the contributory pieces that pulled actors together to form a cohesive strategy for nutrition in the country. You need that person who can

facilitate stakeholders to work more effectively with each other.

Journal: *It seems that we had historically been focused more on how agriculture can feed people. In recent years there seems to be this new initiative for human nutrition integration. Is this something that you see? If so, why is human nutrition getting more attention now?*

Fanzo: There are a few reasons. Historically, there was a lot of infighting and disagreements within the global nutrition architecture on what the burden of nutrition deficiencies were, and what should be done about it. *The Lancet* decided to do a series on maternal and child undernutrition in 2008 and, ironically, this helped change the landscape of nutrition. A lot of different working groups came together to bring evidence to the table, to determine how many children were stunted, what was the burden of micronutrient deficiencies, and what policies were needed. The nutrition community rallied around the series leading up to what is now the Scaling Up Nutrition (SUN) movement led by David Nabarro, the UN special advisor on Food Security. They also rallied around this idea of “1,000 Days.” Nutrition never had a slogan before. It never had anything people could wrap their minds around. But now we know that the first 1,000 days of a child’s life are the most important time to intervene. If you can focus programs and policies on that critical window, then big gains can be made. Influential political figures, such as Hillary Clinton, promoted the 1,000 Days Campaign. Now there are forty-five countries that have committed to scaling up nutrition. So there has been a lot of momentum on the evidentiary and political sides, and a new focus on country-driven approaches.

People are also realizing that we have a major issue on our hands. There are not only 842 million people who are undernourished, but there are also over 1 billion people who are overweight or obese. If you think about the three biggest issues in the world, they are going to be climate, population pressure, and obesity. As countries get wealthier, they often get fatter—that leads to detrimental consequences, including an increase in non-communicable diseases. This obesity trend is due to our global dietary shifts, sedentary lifestyles, and urbanization. I think people are realizing that there has to be a change in our food system, and that we are not doing enough on the obesity agenda.

Journal: *How might we begin to confront this problem of high obesity rates?*

Fanzo: Well, look at what Bloomberg tried to do with limiting soda consumption in New York City. It was not the perfect model, but he was moving in the right direction. Another example is the Danish tax on junk food. These initiatives have not been very successful yet. However, I think there will be a shift. Consider, for ex-

ample, trans fats. Years and years of evidence and science showed that trans fats are very unhealthy, leading to deleterious health impacts. As a result, some cities, such as New York, banned trans fats in restaurants. And it did not just stop there. Now, the FDA is considering banning trans fats in the entire food system in the United States. This is a great example of how clear evidence can lead to food policy and regulation changes at the highest level of the United States government.

Smoking is a similar case. Policy and regulation changes require very solid evidence. With clear evidence, the label on a cigarette package does not have to say “smoking may be a risk factor for mortality.” Instead, the label simply says, “smoking kills,” because the evidence is so clear. We need more evidence like that for nutrition to convince policymakers. It needs to be a bit more black and white, and we need more solid recommendations of what to do, and what has worked in nutrition.

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Journal: Are better policy models enough to change unhealthy consumer behavior?

Fanzo: At the end of the day, you have all these stressors around you. You are stressed out at work; you do not have time to exercise; and you have to drive an hour to work. At the same time, you are surrounded by potato chips and sugar. At the very end of all these drivers and cues is a choice. Are you able to make the right behavioral choice? Whether you are the poor farmer trying to decide what crops to grow, or you are in a bodega and the potato chips are staring at you, it comes down to choice. That choice can be a misinformed or an informed one. However, this decision does not completely rest on the individual. We live in obesogenic environment. Some people have a broader range of choices, and others have fewer choices and less resources available to them. Cheap foods are a big problem, and it has a lot to do with the United States and global food systems. If you go to Timor-Leste, you will see a similar problem of cheap foods. An example there is instant noodles. Many Timorese love these little packages of instant noodles, which are imported from Indonesia. It is not the healthiest option.

More and more of these processed or ultra-processed foods are creeping into every local food system. They are cheap and easier to cook than it is to process cassava, which can take up to three days to remove toxins and get to the right consistency. It is just easier to eat some instant noodles.

Journal: So, is it a big problem for Timor-Leste that they may now be importing all these

processed products, instead of developing a good agricultural system?

Fanzo: Yes. They even import rice! There is a lack of incentive to grow rice when it is cheaper to buy it at the store. The other problem with Timor-Leste is that it is very difficult terrain. It is mountainous in some places and dry in other parts. Their topsoil is shallow, so they have issues with runoff when they have rain. There are some structural challenges in the country that impact agriculture productivity.

This is why, when we discuss diversification of landscapes, subsistence farmers often respond with, “We cannot even produce enough food. Why are you talking to us about the types of food we are growing beyond our staple and cash crops?” This is the constant tug and tradeoff between nutrition and agriculture. How do you make nutrition demand driven? How do you get farmers to think of nutrition as a goal along with generating income? Farmers tend to be risk averse when they have less income or less sources to generate income. They do not want to compromise their core source of income and divert resources to grow other crops with uncertain profitability. It is a hard compromise. It is also the case at the highest levels of government. How do you convince the government to think about nutrition?

***Journal:** Some people argue that genetically-modified organisms (GMOs) deliver higher yields and are more resistant to extreme and unpredictable weather conditions. Can GMOs help fight hunger?*

Fanzo: Well, I think the whole GMO debate is heating up in a bad way. It is becoming a non-scientific and non-starter argument. Regarding the impact of GMOs on health outcomes, there is no data to suggest that it causes harm. At least not yet. We do not know the long-term consequences. Do I think at this moment that they will be harmful to humans? I hate to say no, because you never know in life what is going to happen when you consume something. We all eat tortilla chips, which are made with GMO maize in the United States. Will I be able to say that if I get breast cancer in twenty years, it is because I ate those GMO tortilla chips? Probably not. There are so many other drivers that influence disease, and diet is just one.

Do I think they are potentially important for climate adaptation and other things? Yes, I do think they are important. I think there is going to be a point where we do not have other choices. We are going to have to embrace technology to respond to future challenges. Do I understand why people are worried? Absolutely. It is also a difficult concept for me to wrap my mind around. The science behind GMOs is difficult to comprehend, and people get very nervous when you start to alter the DNA of any species. But I also think that the people who are anti-GMO have been better at communicating the fears of GMO than scientists, at times, have

been at communicating the benefits. I think a lot of scientists are less effective at communicating science to the general public and addressing concerns of the public. For example, Michael Pollan has educated the United States population about nutrition, but he is not a nutritionist or a scientist. He is a journalist, and he gets it right most of the time. He is a wonderful speaker, writer, and advocate. But it is a shame that there is not a nutritionist out there who is able to write as eloquently as he does about the food system. The same is true with the climate debate. I do not think climatologists have been very effective in explaining climate variability and what it is really going to mean. As a result, there are too many people who are still doubters out there. Although there will always be doubters in everything you do, effectively communicating the science behind the arguments can partly solve the problem.

***Journal:** In 2011, you wrote a paper titled, “A Review of Global Progress Toward the First Millennium Development Goal.” The deadline to achieve these development goals is 2015. Can you talk about the progress done by different countries regarding the first goal (eradicate extreme poverty and hunger)?*

Fanzo: There are different components within that goal. For example, the number of people living under the extreme poverty line of USD \$1.25 a day was halved in 2010. But the bar was set so low. The other two are the undernourishment indicator that FAO monitors, and the undernutrition target, which is weight-for-age of children under five years of age. I do not think every country is going to achieve this. Certain countries have met the goal, including Ghana, Vietnam, and Thailand, however some countries will not achieve it.

But as we move now into the Sustainable Development Goals (SDG) era, hopefully one of the indicators will be stunting, which is a better indicator of long-term chronic undernutrition and poverty. It is similar to what we talked about earlier, with Timor-Leste being a post-conflict country. Many of the countries with the highest burdens of stunting —Afghanistan, Yemen, Burundi, Madagascar, Nepal, Mozambique, or Democratic Republic of Congo—are countries with some sort of conflict, whether civil war or with their neighbors. These fragile states are going to struggle to meet the MDGs because they face so many governance and political obstacles.

Ethiopia, however, is doing fantastic. The country has met the infant mortality MDG and reduced stunting dramatically in the last decade. It is a low-income coun-

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try with a large population, but the government has put the right policies in place at the right time, and it implemented them very effectively through community-based approaches and an effective health extension worker program. Other countries, such as Bangladesh and Nepal, are also making big progress. Many other countries, for instance Bangladesh's neighbor, India, is not making big progress. India has the highest number of children who are undernourished. It is a big problem to deal with, especially when combined with massive amounts of diabetes.

In sum, I think some countries will meet the goals and others are stagnant, but maybe the SDG will galvanize more political action.

Journal: When you say stunting has improved, what is the time frame for that? How long does it take to see a change?

Fanzo: Well, Ethiopia went from about 57 to 44 percent in ten years. I think Brazil went from 38 percent to about 5 percent in about 30 years. But with the right package of interventions, and appropriate implementation and targeting to vulnerable populations like women and children, we could actually see faster reductions. However, it is hard to find programs where all the interventions are being implemented. Programs have focused on implementing one, two, or maybe even three programs. But sometimes those intervention programs are disparate. If you really concentrate those interventions, scale them up, and press the buttons at the same time, I think we could see rapid reductions in stunting.

Journal: What are the main obstacles preventing you from doing that? Is it political will, governance, funding...?

Fanzo: All of it. There are obstacles to getting the right policy, the funding to implement that policy, the right NGOs and community health workers to work effectively, getting other sectors engaged, etc. Nutrition is a very cross-cutting and complex discipline. Many of these countries that I talked about earlier do not have the resources to change the infrastructure and mindset to focus on nutrition. So hopefully with the scaling of nutrition, countries will create impactful action plans, get the financing, and build capacity for long-term sustainable change.

Journal: How do you see Timor-Leste going? Are you positive about it?

Fanzo: If they could use their investments in oil and re-invest it in the development of their citizens, I think they could go very far. Timor-Leste is a small country, so it is not geographically challenging, like it is for Ethiopia or Nepal. I have a lot of

hope for Timor-Leste, and I think we are going to see improvements. I have heard that their new Demographic and Health survey data, which should be coming out in the spring, shows a reduction in stunting in the last three years. So, they seem to be on a positive turn. 