

Title: The 2050 Challenge to Our Global Food System

Jim Harkness remarks at the National Food Policy Conference, organized by Consumers Federation of America.

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Feeding 9 billion people by 2050 will be an enormous challenge. In many circles when people talk about feeding the world in 2050, the focus is almost exclusively on increasing food production. How can we do what we're already doing better? What technologies can we produce to get more yield, or calories, out of the handful of crops and food animals that dominate the global food supply?

I'm going to present you with a very different perspective on this issue, because in fact the challenge of feeding 9 billion people by 2050 has as much to do with how our global agricultural markets are constructed as it does with increasing production. There are about a billion people undernourished today, far more than there were 30 years ago. But according to the UN Food and Agriculture Organization, we produce 17 percent more calories per person today than we did 30 years ago, and far more than enough for everyone on the planet to have plenty to eat.

So you see the challenge of global hunger today isn't fundamentally whether we can produce enough food. It's that close to a billion people don't have access to that food. And people trying to buy food find that the cheapest calories are often the least healthy. We now have over a billion people around the world who are obese, and about a billion going hungry. Our global food system is increasingly vulnerable and failing more and more people. This is a market failure and policy failure, not a lack of production. If we don't get to these systemic challenges – it's not going to matter much how much food we can produce in 2050 – many more than a billion will be left behind.

I don't have a lot of time, so I'm going to quickly highlight what I see as the main systemic challenges for our global food system and how they will need to be fixed by 2050.

**1 – We have to address global poverty.** We cannot separate the global food economy from rest of the global economy. This is the elephant in the room that is not talked about enough. We now have 46 million people living in poverty in the U.S., and rising. In 2005, the World Bank estimated there that there are about 1.5 billion people in the world living in poverty – we can be sure that number is much higher now. So, right now – and in 2050 – the biggest challenge for global hunger is the ability of

everyone to afford food – and as we see by rising obesity statistics, enough healthy food. How to accomplish this is a huge question, and all over the world right now people are asking it: how do we create new jobs. But one place we might start is by looking at fair prices for farmers and fair wages for farm workers and food industry workers. The International Fund for Agricultural Development calculates that 70 percent of those living in extreme poverty are in rural areas. So **better prices for farmers would help to reduce poverty because agricultural development is the key basis for growth of developing country economies.** Food and food industry workers are a significant part of the global workforce – and traditionally have been among the most exploited groups in terms of wages and labor practices.

**2 – We have to acknowledge the crushing effect two decades of trade liberalization has had on food security.** For much of the past 30 years, “free trade” has been hailed as the best way to get food to those who need it most. Developing countries were urged and sometimes forced into cutting border tariffs, eliminating subsidies to producers and selling off buffer stocks, on the promise that global markets would reward their farmers and bring lower cost food to consumers. With the exception of a few middle income agriculture exporters such as Brazil and Argentina, that promise has proved hollow.

Without government support, developing country food production stagnated, and was further undermined by the dumping of cheap food from the U.S. By 2007, over 2/3 of developing countries were dependent on food imports to feed their people. Then in 2007-8 and again last January, global food prices hit record highs, and those countries were priced out of the market. The result was a hundred million more people hungry, food riots and in some cases, revolution.

One of the arguments of trade liberalization was that publicly held food stocks are no longer needed – the private sector can manage the food supply. The events of the past three years have proved this to be disastrously false. Right now, global food stocks are “alarmingly” low according to the World Bank, meaning if there is a major disruption in production, we’re in even deeper trouble.

Some economists scoff at the “market distortions” and inefficiency of food reserves, citing the problems of programs in the U.S. and Europe, and of course when such systems are poorly managed they don’t work well. But when there is an unexpected production collapse or price rise, even an inefficient buffer stock is far preferable to none at all. The G20, FAO and many others are looking seriously at how to more effectively use food reserves, and a strong, well functioning food reserve system will be essential for 2050.

**3 – Financial deregulation has created chaos in agriculture markets.** In early 2008, we heard that farmers in the Midwest were having trouble getting forward contracts from the local grain elevator. We looked into it, and later that year put out a report showing how a series of deregulatory moves in Congress and in the Executive branch, opened up commodity futures markets – which include agriculture – to a wave of new speculative money. This money played a role in dramatically driving up prices in 2007-2008 – and after a massive sell-off, prices collapsed. This type of extreme price volatility continues today. A series of institutions – from the UN to the Senate Committee on Investigations – have concluded that this is an issue that must be dealt with. Our moderator, Alan Bjerga, has just written a book on this topic which I look forward to reading. But the bottom line is if Wall Street is allowed to continue to treat commodity futures markets as a high stakes casino – it will be a major blow to our efforts for 2050.

**4 –We must have serious climate change policy that reduces emissions, and supports climate-resilient agriculture.** No sector of our economy is more affected by climate change than food production. In just the last year, we saw nearly 20 percent of the U.S., primarily in the south, under extreme or exceptional drought. In the upper Midwest, torrential spring and early summer rains and flooding along the Missouri and Mississippi Rivers wiped out cropland. At the global level, a severe drought in East Africa threatens the lives of more than 10 million people. Major agriculture producing countries like Russia, China, Brazil and Australia have experienced either extreme drought or widespread flooding in recent years that is affecting global food production.

A comprehensive climate policy would not only reduce greenhouse gas emissions – but for agriculture, it would build climate resilience. There's a farmer we work with in Northeast Iowa. His farm runs right up against the Mississippi River. When massive spring floods hit his fields, the pastures his cattle graze not only held their ground as the water surged, but also served as a buffer for the tons of silt and nutrients that washed off neighboring corn and soybean fields. His farm, based on the principles of agroecology, has pastures with native perennial grasses with deep roots that hold onto the soil during floods and draw moisture from deep underground during droughts. His cattle are rotationally grazed to maximize the health of the plants and animals, and require virtually no outside inputs.

This is an example of the type of resilient agriculture systems we need to invest in, in order to stand up and thrive under increasing pressures of a changing climate, while feeding the world. Agriculture

systems dependent on fossil fuels – for machinery, chemical fertilizers, pesticides – are going to have to undergo major changes by 2050.

**5 – We need to support the ability of food insecure countries to build – and in many cases – rebuild their own food systems.** This need is acknowledged by just about everyone – it was enshrined in a commitment by G8 leaders in 2008 and is part of the Obama Administration’s Feed the Future program – but in both cases, actual investments have been limited.

If we’re going to address poverty, food production and climate change all at once, we need to re-build these systems through agro-ecology, an integrated approach that applies ecological principles to agriculture, with an emphasis toward what works for small scale agriculture. This is something that was endorsed by over 60 countries as part of an international assessment of agriculture a few years ago, led by the World Bank and UN. The assessment concluded that a one size fits all approach to agriculture doesn’t work, especially one wedded to industrial scale production and dependent on fossil fuels. The huge corn and soybean farms in Iowa or Brazil, are not models that work everywhere. Trying to impose this model in developing countries may not produce more food, and even when it does, it may not feed more people. About 85 percent of the world’s farms are less than two hectares in size. Instead of promoting systems that force these farmers off the land or suck them into debt, we need to help them build on their knowledge and more efficiently use resources they have at hand.

As an example of what is needed, in Cambodia small farmers are leading a Sustainable Rice Intensification project that allowed them to increase yields by 60 percent, cut the use of pesticides and fertilizers by 70 percent, maintain ownership of their seeds, and enhance soil fertility. Incomes rose, water use decreased while water quality improved, and a more stable food supply was created. The first innovators organized with other farmers to spread the word. Now, 130,000 farmers participate and it is part of the government’s national agricultural strategy.

Also, we must recognize the critical role that women play in agriculture production – most small scale farmers around the world are women. And development experts will tell you that investments in women – access to credit, ownership, training – typically pay off.

The Tamilnadu Women’s Collective in India is a great example. Earlier this year, we put out a short paper on how this collective with over 150,000 members offers training, credit and support by combining

women's empowerment with low input sustainable agriculture. Like the Cambodian farmers, they have adapted agroecological methods suited to their particular situation to increase incomes and yields and cut chemical inputs. They are now leaders in their communities and taking action at the regional level to get the public support needed to make this a success.

There are many, many success stories like these around the world, but they tend not to get noticed because they have been focused on small farms and production of food for domestic consumption instead of export, and are often initiated by farmers themselves instead of international development organizations.

**6 – Just as we need to integrate climate-resilience into our agriculture systems, we also need to integrate public health into our food system.** As I mentioned before, just because there is access to calories doesn't mean there is access to healthy food. In fact, in many parts of the world struggling with food security, including within the U.S., unhealthy food is the most readily available. The World Health Organization just completed a global meeting in New York to address the crisis of non-communicable disease. These are primarily diet related, and include heart disease, diabetes, stroke and some cancers; they are not only growing fast, but are also the fastest-growing source of health care costs. By 2050, we will need our policies, both in U.S. farm policy and at the international level, to reflect what we know about which foods are healthy and which are not.

**7 – Finally, we are going to need a much more effective and democratic system of global institutions.** Right now, we have the World Trade Organization stuck in the mud for a decade. We have UN agencies and conventions that are woefully under-funded and have limited effectiveness. The World Bank and IMF have long been criticized, and rightly so, for pushing a neoliberal economic model that has failed many parts of the world. These institutions aren't working well right now, but ad hoc power blocs like the G20 have proved no more effective and have less legitimacy. As I have explained, feeding the world requires action on a number of pressing global issues: better regulation of trade, investment and financial markets; climate change; and multilateral support to build sustainable food systems in the developing world. Rebuilding a strong, democratic and effective system of international institutions will be essential if we are to build the kind of food system we need, from the local level to global, by 2050.

As you may have guessed, I believe that feeding 9 billion people by 2050 is primarily a policy challenge, rather than just a technological challenge. What we're doing now isn't working, so simply doing more of

the same isn't going to get us there. People around the world are demanding their right to food, and they want the right food.

The message that policymakers have so far failed to hear is that we have to create policies that recognize food not just as a tradable commodity but as a basic necessity for survival; policies that give individuals, communities and nations more control over where their food comes from; policies that nurture and reward those who provide the kind of healthy, culturally appropriate, food people need in a way that is environmentally sustainable.

Thank you.