

**SOLUTIONS JOURNALISM NETWORK**  
**A REPORTER'S GUIDE TO FOOD SECURITY**



## INTRODUCTION

The UN Food and Agricultural Organization (FAO) has defined food security as a state “when all people at all times have access to sufficient, safe, nutritious food to maintain a healthy and active life.” Food insecurity has become considered one of the largest risks to global society in the next decade – due to a combination of volatile food prices, a growing world population, and the changing global climate.

Most journalists confront this challenge by finding and documenting signs of extreme food insecurity. And surely, there is no shortage of grim news. One in eight people, or 870 million, remain undernourished (i.e., they consume fewer than 1800 Calories a day). Approximately 98% of these people live in developing countries. Undernourishment persists despite the fact that grain production has doubled over the last fifty years, and that 2.5 billion people derive their livelihoods from agriculture.

This book describes **responses** to food insecurity. We use data from the authoritative Global Burden of Disease report to uncover “bright spots,” or places where undernourishment has decreased tremendously and could offer insights for others. We outline several ways communities and innovators are responding to food security – like agricultural storage, insurance schemes, and biotech innovations – and for each, noted pros and cons. And we’ve compiled a few resources that can get you started. (Note: Due to the breadth of the topic, we do not intend this book to be exhaustive. Rather, we’ve chosen a few topics that we believe could lend themselves to a solutions focus.)

The Solutions Journalism Network was created to help journalists examine the stories behind changes like these. We are working to support and legitimize the practice of **solutions journalism**: rigorous and compelling reporting about responses to social problems. We help reporters examine not just what’s wrong, but also examples of innovators working toward solutions – focusing not just on what may be working (based on available evidence), but how and why it appears to be working and, alternatively, in what ways it may be falling short.

We’ve developed this reporter’s guide to help journalists like you add a solutions lens to your work, when needed to capture the whole story. We hope you find this useful! You can learn more about us at [solutionsjournalism.org](http://solutionsjournalism.org)

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## WHY SHOULD I USE SOLUTIONS JOURNALISM IN MY REPORTING?

Traditional journalism focuses on uncovering problems. But this gives a misleading picture of the world. A steady diet of problems has made the public cynical, apathetic and disengaged. Just as important, it inhibits progress. For society to improve, people need models. They need to know that solutions exist, and to learn from what's already been done. Journalism should uncover hidden problems. But it should also uncover hidden solutions.

Journalists are sometimes reluctant to write about responses to problems because they are afraid these stories will look like – or be – advocacy, fluff or public relations. They are sometimes afraid that a program they declare a success this week might fail next week. Excessive cynicism in journalism is seen as a misdemeanor – but excessive gullibility is a felony. No journalist wants to look gullible.

Done with good reporting practices, however, solutions journalism is every bit as hard-hitting, rigorous and objective as traditional journalism. Nor does writing about responses require more expertise than writing about problems. Solutions journalism is also a way to strengthen more traditional reporting; if someone has found an approach that works, it makes failure-as-usual more glaring.

### Great solutions journalism:

- Examines a response to a social problem.
- Focuses less on the charisma or talent of the people behind the response than on the response itself.
- Shows the *H* – how did they do it? – in addition to the 5 *W*'s of traditional journalism.
- Puts the response in broader context. Is this a break from the past? What is different about this approach compared to the standard approach to this problem?
- Analyzes and explains how and why the response seems to be working (or not working, or partially working) using the same kinds of evidence and anecdotes used in problem-focused journalism
- Provides a critical analysis of the strengths and limitations of the response
- Doesn't make unsupported claims or call winners
- Simply reports on what people are doing to respond to a problem and what effects that is producing

## HOW CAN I USE SOLUTIONS JOURNALISM TO COVER FOOD SECURITY?



### HOW do I find a solutions-oriented story?

**Use databases:** Normally, journalists use databases to look for the worst performer – the negative deviant. With solutions journalism, you'd also look for the positive deviant. Who's doing better than the others? Why? What can we learn? What does this say about the underperformers? Data can point you to models and strategies that are working where others don't.

Statistics are available from UN agencies, agricultural research groups, NGOs and governments covering subjects such as: hunger, deforestation, agricultural production, land titling, and school feeding.

**Academic papers:** Search journals for research showing what works. Examples include: Journal of Sustainable Agriculture, Renewable Agriculture and Food Systems, Environmental Earth Sciences, Journal of Nutrition, Journal of Humanitarian Assistance

(Note: These are two places that are particularly well-suited to find solutions stories. You can also turn to local experts, international organizations or NGOs, government officials, social media, or your previous reporting. Check out Page 16 for a few potential resources.)



### HOW do I report a solutions-oriented story?

**Ask your sources different questions:** When speaking to sources with broad knowledge about a problem (e.g., representatives from international NGOs, UN agencies, government officials), ask them: Who's got a better approach? Does this work anywhere? Who's doing best on this? How are they doing it? What can we learn from it?

When speaking to sources with specific knowledge about a problem (e.g., local agricultural extension agents, farmers, health workers, village officials), ask: Do you know of anyone who's doing better on this than others? Are there farmers with better yields or families with better-nourished children? What are they doing that others are not? What can we learn from it?

**Take to social media:** Ask your tweeps and Facebook friends if they know of promising responses or positive deviants. Ask your best sources to do the same with their social media contacts.



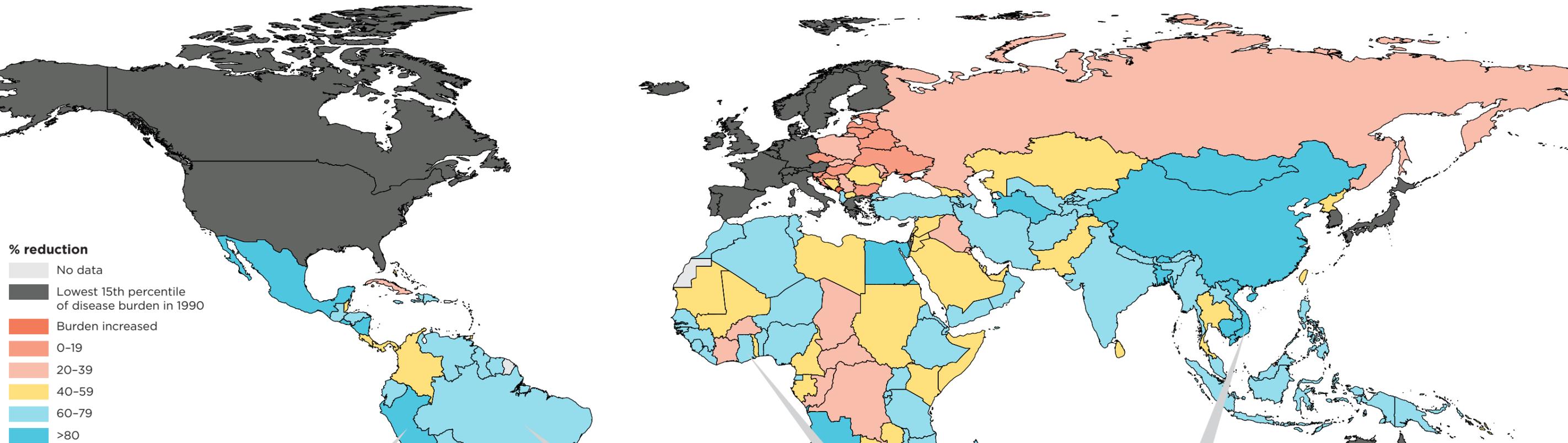
### HOW do I vet a solutions-oriented story?

- In your story, focus more on what's going on, rather than who's doing it. The system is the main character. The idea is the hero/villain.
- Don't predict or prescribe. Write about what's happening now – the outcomes being produced now, and how they happened. You don't have to worry about being an advocate or picking winners if you are careful not to make claims.
- The judgment needed to identify solutions is similar to the judgment needed to identify problems. What happened & how do we know it happened?

## WHERE ARE THE BRIGHT SPOTS?

% REDUCTION IN PREMATURE MORTALITY AND DISABILITY FROM CHILD AND MATERNAL UNDERNUTRITION, FROM 1990 TO 2010

This map depicts how child and maternal undernutrition has changed in every country from 1990 to 2010. We've highlighted a few "bright spots," or countries that have improved their undernutrition scores dramatically, and offered hypotheses for why. (Source: Institute for Health Metrics and Evaluation)



### PERU

In 2006, Peru began its Child Malnutrition Initiative. Over the next five years, stunting - low height-for-age -- fell by a third. Among the poorest children, stunting prevalence declined from 56 to 44 percent. Here are some possible reasons.

- The Peruvian government adopted the Child Malnutrition Initiative as one of its most important national policies, and they focused it on the poorest parts of Peru.
- The government recognized that fighting malnutrition requires more than food. It integrated its nutrition work into a national poverty-reduction.
- Peru overhauled the way it delivered anti-poverty services. It instituted pay-for-results financing and other measures to make services more efficient and accountable.

### BRAZIL

Between 1990 and 2006, Brazil experienced a decline in its undernourished population from 16 million to 6 million. Here are some hypotheses of how they did it:

- The Brazilian government has implemented a variety of social safety net programs, such as fortified wheat distribution, school-feeding programs, and conditional cash transfer schemes.
- In 2003, they launched the Zero Hunger Project, which is one of the world's largest conditional cash transfer schemes. It benefits more than 30 million poor people.
- The government has invested over \$50 billion into agriculture for the 2012/2013 season and increased funding for development of farmer cooperatives.

### GHANA

Ghana has had one of the steadiest nutritional improvements in Africa since 1990. Its stable and democratic political environment has allowed it to reduce poverty from 52 percent in 1992 to 29 percent in 2006. It has also increased attention and investment into improving food security. For instance:

- The government invested in giving farmers information, agricultural inputs, and storage facilities.
- The Ghana School Feeding Program (GSFP), launched in 2005, provides all kindergarten and primary school pupils a daily hot and nutritious meal, sourced locally.
- Ghana has experienced dramatic increases in cocoa production, which has allowed a substantial increase in exports, thereby increasing farmers' incomes and the national GDP (which has grown four to eight percent annually over the past decade).

### VIETNAM

• Vietnam was food deficient 30 years ago, and has since grown to be the world's second largest rice exporter after Thailand. The agriculture sector comprises 52 percent of the country's employment.

- Increases in annual rice, wheat, maize, and soybean production are linked with accelerated agricultural growth as a combined result of land titling policies, price liberalization, and improved use of land, irrigation, and advanced technology.
- The proportion of the health budget spent on nutrition programs is high, accounting for 25 percent of national target programs.

# WHAT DRIVES FOOD INSECURITY?



## Farmers are producing at below capacity

Farmers are producing below full capacity. A hectare of land in North America produces more than five times as much corn as a hectare in Africa, according to the Food and Agriculture Organization. Unsustainable land practices such as deforestation, cultivation on steep slopes, and soil nutrient mining (i.e., the un-replenished removal by crops of soil nutrients) continue to decrease the amount of arable land available for food production.

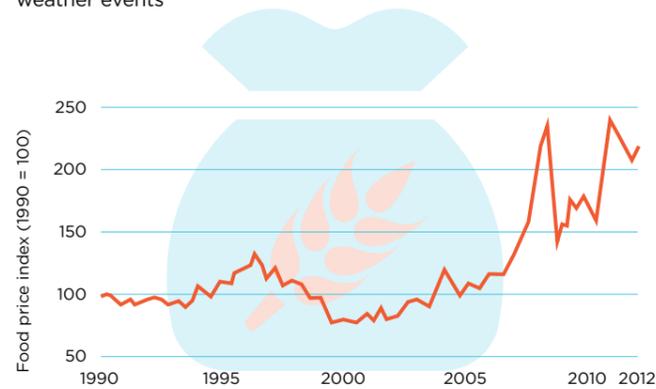
Low yields are often the result of technical constraints (e.g., lack of access to fertilizers or yield-maximizing crop varieties), unfavorable market conditions (e.g., trade sanctions), and failure to embrace sustainable land practices. Many farmers also do not have access to weather and crop insurance, which increase long-term productivity.

Water constraints also pose a great challenge to food productivity. Crop yields are the lowest in the Horn of Africa, where less than one percent of the land is irrigated (FAO).



## World food prices have been particularly volatile in the last five years

Many scientists believe recent price volatility is linked to extreme weather events



Source: World Bank.

### Did you know?

Approximately 2.5 billion people worldwide derive their livelihoods from agriculture, and small-scale farmers produce food for ~70% of the world's population.



## The food system is leaking

One-third of food produced for human consumption is lost or wasted globally, which amounts to about 1.3 billion tons per year (UNEP).

In the developing world, food is often lost between harvest and table due to inefficient record keeping strategies, government corruption, and inadequate storage facilities or modes of transportation to minimize spoilage and exposure to rats and insects.

In the developed world, food waste also occurs at the consumption stage. The Food and Agricultural Organization estimates the per capita food waste by consumers in Europe and North America is 95-115 kilos per person per year, while the corresponding figure in Sub-Saharan Africa and South/Southeast Asia is 6-11 kilos.

### Did you know?

Global food production occurs on 25% of all habitable land and is responsible for 70% of fresh water consumption, 80% of deforestation, and 30% of greenhouse gas emissions



## Food is often unaffordable for people at the bottom of the pyramid

Between 2000 and 2012, the World Bank global food price index increased at an average annual rate of 6.5 percent. The World Food Program estimates that these rising food prices have pushed 44 million people into extreme poverty and hunger since June 2010. Rising prices of oil, decreasing natural resource supplies, government corruption, and geographic barriers affect the ability of the agrarian poor to both sell and buy food.



## A changing climate is impacting food security

Warmer temperatures, more concentrated rainfall, and extreme weather events increase the likelihood of crop failure, limiting supply and raising prices. Certain seeds and crop varieties are no longer suitable for changing weather patterns. As a result of climate change, some studies predict an average of 17% drop in wheat yields in Africa by 2050 and a 16% drop in maize yields in South Asia (Phys.org).

Poorer countries - particularly those in tropical and sub-tropical regions - are the most vulnerable to extreme weather events. Future farmers may face new and more aggressive agricultural pests and diseases.



## It will be challenging to feed a growing world population

UN Population estimates that the world's population will be 9.6 billion in 2050, representing an increase of 30% on the 2010's global population. Studies suggest the world will need 70 to 100 percent more food by this time.

A large proportion of this population will be in urban areas in developing countries. Increased urbanization may mean there will soon be more net food consumers than producers, and that prime agricultural land will be converted to residential or industrial areas.

### Did you know?

Despite population increase, the number of children stunted by undernourishment has dropped from one quarter of a billion in 1990 to 165 million today.

### Did you know?

For developing countries as a whole, the prevalence of undernourishment has fallen from 23 to 15 percent over the period 1990-2010 (FAO).



## The global food supply is vulnerable to market conditions

In the last six years, there has been a recurrent rise and high volatility in international food prices. The prices of maize and wheat almost doubled in the last ten years and the prices of rice tripled in 2008 over the course of a few months. Rising food costs are linked with rising energy costs, increased transportation costs, seasonal factors, depreciation or appreciation of currency, political conflict, and climate change.

Food subsidies have become a controversial topic in food security. In recent years, there have been several instances where subsidies have negatively affected farmers in developing countries. For instance, rice subsidies in the US have had an adverse affect on Haiti's rice farmers, who have been priced out of the global market ("Subsidizing Starvation" in Foreign Policy).



## Women are often excluded from conversations on food security

Women comprise on average 43% of the agricultural labor force in developing countries and produce the bulk of the world's food crops (FAO). However, social structures often exclude women from agricultural and rural policymaking decisions. Women farmers often do not have access to the same educational, technological, and financial resources, which reduces their overall productivity and access.

Gender discrimination also restricts women's knowledge of and access to nutritional choices. The nutritional status of women during pregnancy and the first 1000 days from conception to a child's second birthday are critical to an individual's long-term health and productivity (The Lancet).

## WHAT ARE SOME RESPONSES?

2.5 billion people make their living from agriculture. Here are some efforts at improving agricultural production and the lives of the people along the way.

### Cooperatives

In many countries, farmers are increasing productivity by pooling their resources to form cooperatives. Cooperatives are owned and managed by the members. Members pay dues to gain access to services like marketing, small loans, agricultural inputs, and storage facilities. Cooperatives build social capital and allow smallholder farmers greater bargaining power in the marketplace.

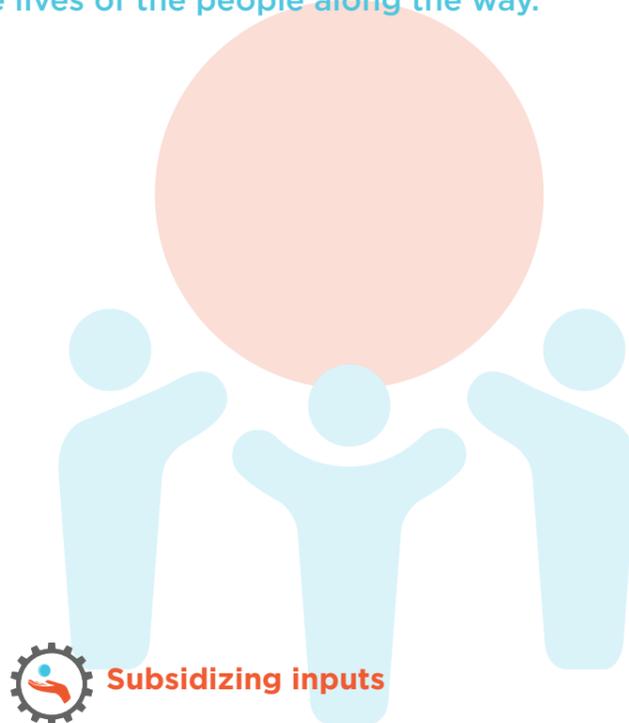
For example, Amul is a dairy cooperative in India that uses an automatic, computerized collection system that reduces weighing time and payment processing for small-scale farmers. Amul buys exclusively from women, which has helped to improve their social status (India Institute of Technology).

Some farmers are hesitant to join cooperatives because they might not receive returns proportional to their inputs. Effective cooperatives are also vulnerable to corruption, in the absence of good leadership (Forbes India).

### Risk management

Most farmers in the developed world have crop insurance to protect against unseen weather incidents. It is gradually becoming an integral means of improving food security in the developing world as well, especially in the face of climate change. Insurance can help align production incentives, raise awareness of the importance of risk mitigation, and encourage investment in agricultural efficiency (Swiss Re).

Most agriculture insurance seen in the developing countries is in China and India. India, where two-thirds of the population is dependent on agriculture, has the world's largest crop insurance program, with 25 million farmers technically registered. The World Bank has recently started working to augment the program by providing farmers with information on weather and crop yields via mobile phone. The apps also help farmers process their claims more efficiently (World Bank). Similar "micro-insurance" programs have been tested in sub-Saharan Africa, such as Kilimo Salama in Kenya (NYTimes Fixes). This program relies on mobile phones to give payments to farmers in case of crop failure.



### Subsidizing inputs

A classic government intervention is providing subsidies to domestic farmers.

For example, in 2005, Malawi began the Farm Input Subsidy Program (FISP) to improve national food security. The country has been since registering maize surplus. In 2010, 1.6 million farmers received vouchers to purchase subsidized fertilizer and maize seed, allowing them to maintain steady incomes (IRIN News). However, FISP – along with many similar subsidy programs – is controversial. Over half of the country's agriculture budget supports FISP (VOA News) and critics contend that the program is not sustainable.

Separately, the European Union signed in 2001 an "Everything But Arms" treaty to encourage trade from poor countries. The agreement allows some African nations to sell food without paying tariffs at inflated European prices. The program has mixed results so far – critics contend that it has made the price of some foods like sugar become more volatile (Tropentag 2011).



### Food banks and humanitarian aid

There is a tension between long-term development and immediate need in emergency settings. On one hand, food donations are useful when there is insufficient food in conflict settings. During some natural disasters, however, agricultural markets are still functional and people affected by the natural disaster only need assistance in purchasing it (NYTimes Fixes).

In these cases, many experts argue that food and seed donations could potentially hurt local economies and limit the decision-making of local populations. Food donations also require high transportation costs and could take time to reach local populations.

For these reasons, some assistance organizations have begun experimenting with giving vouchers or cash. The World Food Program administered a program for Iraqi refugees in Syria, where refugees received food vouchers through text messages (IRIN News). Many aid organizations have also begun seed voucher programs for farmers.

In settings where food is present, cash transfers and vouchers might be a more cost-efficient solution than food. However, studies suggest that vouchers might favor a gender imbalance with distributions to male heads of households. In some cases, it may also be more difficult to guarantee that beneficiaries are using the money for food.



### Storage

In response to the 1.2 billion tons of food wasted every year, some governments and organizations are introducing better storage techniques. For example, Mylar bags use heat technology to kill pests and keep out oxygen to prevent early spoilage. In West and Central Africa, the Purdue Improved Cowpea Storage (PICS) project has introduced a triple bagging hermetic method to reduce cowpea waste (Purdue).

Community food banks are another method of improving storage systems. Food (usually grain) is deposited in a warehouse and is entered into a record system. Community members can borrow during times of need and repay, in kind, with interest. Food banks have been found in many countries to effectively address hunger and reduce wastage. To be effective, bank operators should be trained in management techniques and methods of setting fair interest rates (World Food Programme).

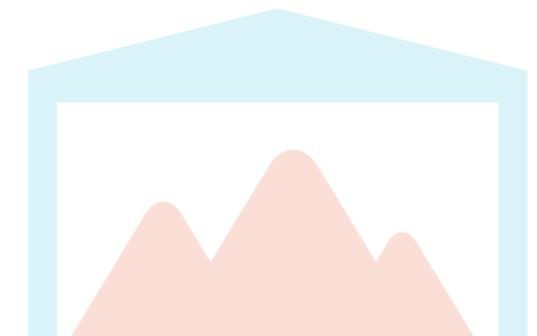
"Last-mile" storage techniques are not without difficulties. Some techniques may alter the nutritional content or quality of food. Availability of storage warehouses is often politically motivated. Storage is also vulnerable to corruption, mislabeling, and theft.



### Safety net programs

Ethiopia, Brazil, and Mexico are examples of countries that offer safety net programs to a considerable percentage of their vulnerable populations. The programs can include food vouchers, cash transfers, school feeding programs, food distributions, and more.

In 2005, the Ethiopian government launched the Productive Safety Net Program (PSNP). The program supports 7-8 million rural Ethiopians either with food or cash. The majority of recipients work on public works projects for six months in the year, while recipients unable to work receive direct grants. Recipients were found to have a moderate improvement in food security, and were found to fare even better if they also received complementary agricultural services (World Bank).



## WHAT ARE SOME RESPONSES?

There have been many noteworthy scientific and technological innovations to improve food security. If you choose to research any of these innovations, be sure to ask about how cost-effective, scalable, culturally appropriate, easily transportable, and user-friendly they are.



### Micronutrient intervention

**Food fortification:** Many countries are responding to malnutrition by adding micronutrients – such as vitamin A, iron, and iodine – to food staples. Globally, 78 countries have mandated fortification of wheat flour, maize flour, and/or rice (FFI Network). For instance, the Brazilian government distributes a fortified-wheat called “multimistura” to low-income populations. In Mozambique and Uganda, a campaign is biofortifying sweet potatoes, or breeding orange sweet potato varieties that naturally have more vitamin A than their white or yellow counterparts. Studies have found that children who eat these orange sweet potatoes have more vitamin A in their blood (NPR).

Fortifying food does, however, carry with it increased production costs, such as initial equipment purchases, production staff, and quality control. In many countries, there has been massive distrust of fortified food due to perceptions of it being altered (NYTimes).

**Supplementation:** Some governments and aid agencies are trying vitamin supplements to target nutritional deficiencies. In Madagascar and the Philippines, UNICEF has distributed a supplement called Plumpy’Doz to meet the nutritional needs of infants and young children during their critical periods of development (UNICEF). Sprinkles, a powdered iron supplement, can be added to a child’s food and does not have the same side effects as iron pills or syrups (e.g., bad taste, teeth discoloration, or stomach pains) (NYTimes Fixes). However, some malnourished people have difficulty absorbing and digesting nutrients in supplementary forms. There is also some controversy around the price, availability, and patent protection of food supplements.



### Crop biotechnology and innovation

**Crop breeding:** Some agricultural specialists select desirable traits from different crops to create more durable, pest-resistant, and higher yielding varieties. This can be done by randomly mixing genes by cross breeding different plant species, or through more selective genetic engineering. In Timor-Leste, a genetically modified variety of rice, called Nakroma, is more pest-resistant and can give up to a 40% increase in crop yield compared with the local variety (CARE).

Some genetically modified plant varieties can be harmful to local ecosystems and the environment. Critics argue they require more pesticides and could pose a variety of unexamined health risks. However, they can also be modified to adapt to changing climate and environmental conditions. Hybrid seeds are also often more expensive and cannot be reused as effectively as traditional seeds.

**Conservation agriculture:** Farmers are using drip irrigation and water pumps to better utilize farming inputs. Drip irrigation, which relies on tubes to bring water and fertilizer directly to the roots of plants, can be as much as a third more water efficient. However, it can be more expensive to install than surface irrigation, which relies on gravity (IMECHE).

Irrigation, fertilizer, and water harvesting are helping to reduce erosion in drylands and increase productivity. Zero tillage farming, the process of drilling seeds into the soil with little to no land preparation or plowing, is helping to maintain soil cover year round and increasing organic matter in soils. However, zero tillage might increase dependency on herbicides and result in soil compaction (WSJ).

## ADVICE FROM OTHER JOURNALISTS



We asked Roger Thurow (The Last Hunger Season), Kenneth Weiss (Pulitzer Center grantee), Tina Rosenberg (New York Times) and Sharon Schmickle (Pulitzer Center grantee) how they report these stories. Here’s what they had to say:

### On deciding what’s newsworthy:

**Roger:** The one story I became very passionate about was hunger in the 21st century. At the dawn of the new millennium, there were a billion poor people in the world who were chronically hungry. I had been to the Ethiopian famine of 2003, and the market collapse I saw there – that to me was the overriding story of our time. It’s a problem we shouldn’t have in the 21st century.

**Sharon:** Too often, news organizations wait until there is a major famine before dispatching journalists to cover food insecurity. The news that can make a difference in this regard is coverage that comes long before the famine sets in. There is no lack of new and newsworthy developments in the field. So it’s a matter of looking for them at the right time.

**Roger:** People only write this story at times of famine, at the extreme points. But it’s chronic, everyday, grinding hunger that’s there for millions of people in the world.

**Tina:** I look for stories that will surprise people because they counter the prevailing narrative. For example, “everyone knows” that climate change is killing small farmers. But are there farmers who are thriving? How are they doing it? “Everyone knows” that you can’t provide insurance to very poor people -- the transaction costs are too high. Yet technology is making this possible. How?

### On who to consult:

**Tina:** I try to talk to a mix of people who have a broad overview and a very close-to-the-ground view. It’s useful to speak to people at international groups, such as agricultural research organizations or UN agencies. They have a wide perspective on who’s doing things that are exciting and successful. But it’s imperative to also talk to people on the ground, where these new projects are happening. They are the ones who know what’s really working or not, and why -- because they know the impact the project has on their own lives.

**Roger:** You need to speak to people on the ground who are most impacted – the people going hungry, the people trying to feed their children. It’s also particularly important to talk to smallholder farmers. I also talk to agriculture people, plant breeders, economists, soil specialists, and social entrepreneurs in this area.

**Sharon:** Farmers and consumers must be part of the story. Beyond that, it depends on the issue being covered. Often local agriculture research institutes have a grasp of the issues and connections with the relevant farmers or farming regions.

**Ken:** I like to talk to independent university scientists. David Tillman and Jon Foley at the University of Minnesota, Ken Cassman at the University of Nebraska, Jason Clay at the World Wildlife Fund, and Sandra Postel at the Global Water Policy Project are all good sources. You’ll also need to spend time with the Food and Agriculture Organization.

### On reporting challenges:

**Sharon:** One challenge in some parts of the world is that men do the talking while women do the actual farming. To the extent possible, it’s important to talk to those women.

**Tina:** The topic is so broad. Many, many different things affect food security. Even making a dramatic improvement in one factor may not lead to real change, because there are so many other factors.

**Ken:** Some of the data is a little elusive – make sure where it comes from, and be careful. A lot of the data that people keep referencing is pretty old. Also, you have a lot of people who want to come up with technological fixes, some of which won’t necessarily work.

**Sharon:** In some countries, one big challenge is actually getting to the neediest farmers. Their land typically lies beyond the end of the road where communication can be difficult.

**Roger:** One of the biggest challenges is getting people interested in the topic to begin with.

### On engaging readers:

**Ken:** These stories are hard to sell! You need to tell stories about people, hang out with farmers, use all five senses in your reporting.

**Sharon:** There is urgency in hunger. If you convey that urgency, readers will be engaged. Further, food forms a common bond worldwide. Everyone eats, and almost everyone is interested in food in some way or another. Exploit that bond as you tell your story. It is a connection between a reader and a story based in a far-away place.

**Roger:** You want to bring the readers into the “eyes of the hungry” to understand this issue. Try to make the reader care about how we are in this situation and what needs to be done.

**Tina:** I write for an American audience, so solutions journalism is very important when I report on food security. Americans have a very bleak view of hunger and poverty in the world, and it makes them cynical and disengaged. They check out. But I’ve found that if I can report on things that are working, my readers once again connect to this issue.

### Advice for other journalists:

**Ken:** Use satellite images when you can. And the advancements in food genetics are really amazing. Don’t just fall in the camp that GMOs are bad, since the topic is much more complex than that.

**Tina:** Use data. You can find all kinds of data about agriculture, nutrition, hunger, climate, environment. Look at a database and see if there’s one country or place that’s doing a lot better than other countries that you’d think were similar. If there is, then that country is doing something different that’s worth telling people about.

**Roger:** There’s a traditional means of newspapers, magazines – but think about new media and social media. Tell the story through humanitarian agencies. That’s a great way.

**Sharon:** Go for it! Years ago, almost every large news organization had an agriculture beat or beats. Truly, they were food beats, covered by journalists who understood food production and told compelling stories from around the world. Except for agribusiness coverage, those beats are almost extinct. In other words, this is a neglected area that is rich with important stories waiting to be told.

# The New York Times

MAY 9, 2011

## Doing More than Praying for Rain

By TINA ROSENBERG

In the United States, insurance against extreme weather is seen as so important that Washington subsidizes it highly and requires it for farmers who want other government benefits. If American farmers need weather insurance, African peasant farmers need it even more. But the vast majority of African peasant farmers have no opportunity to insure their crops .

Virtually all small farmers in Africa depend on rain for irrigation. Most have no safety net — a farmer planting an acre of corn twice a year can find her family nearly destitute if the crop fails because of drought early in the planting season, or too much rain later on. She will have invested everything she has in seeds and fertilizer. There will be nothing left for the next planting season.

Farming an acre of grain with nothing more than a strong back and a hoe has always been precarious, but now more so than ever, because of climate change. A report from the International Food Policy Research Institute estimates that grain crop yields in Africa will shrink substantially by 2050, there will be 10 million more malnourished children than there are today and Africans on average will be eating 21 percent fewer

calories than they do today. Small farmers around the world need many different things to help them survive climate change: seeds resistant to extreme weather and pests, cheap irrigation systems, and better agricultural infrastructure, such as more feeder roads. But one thing that can help small farmers now is insurance.

The insecurity of farming sabotages yields even when the weather is good. Because of the risk, many farmers are unwilling to bet all their money on a crop, so they sow only a portion of their land. Or they use poor quality seeds because they do not want to increase their risks by spending more. Risk makes it very difficult for farmers to get credit to buy needed seeds, fertilizer, herbicides or insecticides, so their yields are stunted. These are people who can ill afford to get less than the maximum from their plots.

Weather insurance for small farmers has always faced numerous barriers. But throughout east Africa today there are projects finding creative and innovative ways to overcome them. One of them is a project in Kenya's southwest that so far insures 22,000 farmers. There are so few farmers with insurance in Africa that this project is the continent's largest. It is called Kilimo Salama, which means "safe farming" in Swahili. What makes it work is technology.

(Excerpt)

Since Tina writes for a general American audience, this lead helps orient readers unfamiliar with Africa and those unfamiliar with crop insurance.

This para gives context on the gravity of the problem. It also makes the impending response seem all the more necessary and newsworthy.

This sentence gives readers a good early glimpse of what's ahead.

Dan signals here the broader importance of this program, as well as its novelty.

This para mentions other responses to malnourishment. It helps set up why biofortification is arguably a better solution.

This question underscores the philosophy behind the sweet potato fortification.

Note that Tina quantifies only what has been done to date. Throughout the piece, which describes the promises and difficulties of a "micro-insurance" program for farmers, Tina is careful not to make claims about the future. This keeps her from sounding like she's picking a winner.



AUGUST 15, 2012

## Saving Lives in Africa with the Humble Sweet Potato

By DAN CHARLES

A regular old orange-colored sweet potato might not seem too exciting to many of us.

But in parts of Africa, that sweet potato is very exciting to public health experts who see it as a living vitamin A supplement. A campaign to promote orange varieties of sweet potatoes in Mozambique and Uganda (instead of the white or yellow ones that are more commonly grown there) now seems to be succeeding. It's a sign that a new approach to improving nutrition among the world's poor might actually work .

That approach is called biofortification: adding crucial nutrients to food biologically, by breeding better varieties of crops that poor people already eat.

In some cases, [nonprofit HarvestPlus] found that just giving malnourished children a vitamin A capsule every six months cut the death rate among those children by about 25 percent. "This number really astounded the nutrition community," says [economist Howarth Bouis]. "Then they started looking at iron and zinc and iodine deficiencies." They discovered that these micronutrients make a huge difference in people's health.

The problem is, getting those capsules to hundreds of millions of people, many of them in remote villages, gets very expensive .

At that point, Bouis had his eureka moment: Why can't we find a way for people to get those essential micronutrients from the staple foods that people are eating already? Why

not try to breed varieties of corn or rice that are naturally higher in iron or vitamin A?

Selling A Population On A Better Potato [Maria Isabel Andrade from the International Potato Center] became an evangelist for the orange sweet potato. She helped find varieties that would grow well in Mozambique (the first of these varieties were distributed in 1997) and worked to get them widely distributed.

She's working with the government on a big marketing campaign that includes radio spots and personal visits to countless villages. "We are still doing this: theater in villages, singing about orange flesh sweet potato, how good it is, how you feed it to your children, and showing recipes so that they get used to it," says Andrade.

"This potato is healthier," one of the sellers, Jaime Otavio Martin, tells me. "It has more vitamins. These are the sweet potatoes that people want to eat, now. That's why I grow them. They're more profitable."

About a third of all the sweet potatoes in Mozambique, Andrade says, now are orange.

Recently, scientists gathered evidence from Mozambique and Uganda that these vegetables are, in fact, improving people's lives. Children who are eating them do have more vitamin A in their blood. Based on other studies of the effects of vitamin A, nutritionists are confident that the boost is big enough to improve the health of those children.

This para offers some evidence (albeit not quantified) of the idea's merits.

(EXCERPT)

This para describes how the program is working.

# WHAT ARE SOME GOOD RESOURCES?

## Academic Articles and Resources

- Godfray, Charles H. "Food Security: The Challenge of Feeding 9 Billion People." *Science Magazine*. 28 January 2010. [This article explores the changing world of food security in light on climate and environmental change.](#)
- The Lancet. Maternal and Child Nutrition Series. 6 June 2013. [The Lancet's series on maternal and child nutrition, in collaboration with IFPRI, address the root causes of malnutrition and appropriate interventions.](#)
- Shepherd, Benjamin. "Thinking Critically About Food Security." *Security Dialogue*. 8 June 2012. [This article offers a critical perspective of the meaning and language of food security while assessing state-centered complications.](#)
- World Food Programme. "Revolution: From Food Aid to Food Assistance." 2010. [This resource from the WFP provides a detailed review of innovative strategies for enhancing food assistance and nutrition in conflict zones and developing countries.](#)

## Datasets and Reports

- FAO Statistical Yearbook 2013. [FAO provides the greatest wealth of data, graphs, research, and reports on global hunger and sustainable responses to food insecurity.](#)
- World Bank. "Responding to Higher and More Volatile World Food Prices." 2012. [The World Bank examines the effects of rising global food prices and the many possible contributors as well as potential solutions.](#)
- United Nations. Millennium Development Goals Report. 2012. [This report highlights the major progress toward achieving millennium development goal 1, eradicate extreme poverty and hunger.](#)
- IFPRI, Concern Worldwide, and Welthungerhilfe and Green Scenery. "Global Hunger Index: The Challenge of Hunger: Ensuring Sustainable Food Security under Land, Water, and Energy Stresses." 2012. [This comprehensive report and index tracks country-by-country progress and strategies toward achieving food security under conditions of land, water, and energy stress.](#)

## Journalism

- Charles, Dan. "Saving Lives in Africa with the Humble Sweet Potato." *NPR*. 15 August 2012. [How crop breeding is adding more nutritional value to foods in Mozambique and Uganda.](#)
- Hultman, Tami. "Nigeria: Cell Phones for Farmers to Cut Corruption, Deliver Services." *AllAfrica.com*. 14 January 2013. [A look at Nigeria's cell phone distribution program that sends subsidized vouchers for seeds and fertilizer directly to farmers.](#)
- Lowenberg, Sam. "Easier Than Taking Vitamins." *New York Times*. 5 Sep 2012. [A look at how Sprinkles, a micronutrient powder, is tackling child malnutrition.](#)
- Mackay, Fiona. "Sowing the Seeds of Food Security." *New York Times*. 27 November 2011. [An in-depth account of how a nonprofit, SEED, is teaching permaculture to elementary school children and promoting food security in Cape Town, South Africa.](#)
- Rosenberg, Tina. "In Famine, Vouchers Can Be Tickets to Survival." *New York Times*. 27 October 2011. [A detailed review of the benefits of cash and vouchers over food donations in war-torn Somalia.](#)
- Van Vark, Casper. "Wild foods: a food security strategy that's hard to swallow?" *The Guardian*. 3 July 2013. [How wild foods are contributing to nutrition and dietary diversity in rural communities across the world.](#)

## Sources

Akhtar, Shamsad. "Food Security in the Arab World : Price Volatility and Vulnerabilities and the World Bank Response." Keynote Address at First Arab Development Symposium: Food and Water Security in the Arab World. Kuwait, 14-15 March 2011. <http://www.un-foodsecurity.org/node/1046>

Allen, Lindsay et al. Guidelines on Food Fortification with Micronutrients. World Health Organization. Food and Agricultural Organization of the United Nations. 2006. [http://www.who.int/nutrition/publications/guide\\_food\\_fortification\\_micronutrients.pdf](http://www.who.int/nutrition/publications/guide_food_fortification_micronutrients.pdf)

Anjiah, Veeramalla. "Kuwait to Launch \$71b Food Security Fund." *The Jakarta Post*. 16 October 2012. <http://www.thejakartapost.com/news/2012/10/16/kuwait-launch-71b-food-security-fund.html>

Brown, Marianne. "UN Praises Vietnam's Hunger Fighting Policies." *Voice of America*. 14 March 2012. <http://www.voanews.com/content/un-praises-vietnam-for-agriculture-policies-to-fight-hunger-142776935/179693.html>

Buhl, Amanda. Meeting Nutritional Needs Through School Feeding: A Snapshot of Four African Nations. <http://www.schoolsandhealth.org/Documents/Meeting%20Nutritional%20Needs%20Through%20School%20Feeding.pdf>

Del Ninno, Carlo et al. Food Aid and Food Security in the Short and Long Run: Country Experience from Asia and sub-Saharan Africa. The World Bank. November 2005. [http://www.fao.org/ISNforum/sites/default/files/files/Have%20your%20say/Food\\_aid\\_in\\_Africa\\_and\\_Asia.pdf](http://www.fao.org/ISNforum/sites/default/files/files/Have%20your%20say/Food_aid_in_Africa_and_Asia.pdf)

FAO. "Cooperatives: Empowering Women Farmers, Improving Food Security." 15 November 2012. <http://www.fao.org/gender/gender-home/gender-insight/gender-insightdet/en/c/164572/>

FAO "Prospects by Major Sector." *World Agriculture: Towards 2015/2030 Summary Report*. 2002. <http://www.fao.org/docrep/004/y3557e/y3557e08.htm>

FAO "The State of Women in Agriculture: Closing the Gender Gap for Development." in *The State of Food and Agriculture 2010-2011*. 2011. <http://www.fao.org/docrep/013/i2050e/i2050e01.pdf>

Guenette, Paul. "The Food Aid Debate is a Distraction." *The Guardian*. 17 June 2013. <http://www.theguardian.com/global-development-professionals-network/2013/jun/17/food-aid-debate-distraction>

Headley, Derek. "The Impact of the Global Food Crisis on Self-Assessed Food Security." *The World Bank*. 13 March 2013. <http://blogs.worldbank.org/developmenttalk/the-impact-of-the-global-food-crisis-on-self-assessed-food-security>

IDE. "Our Technologies." <http://www.ideorg.org/OurTechnologies/Home.aspx>

Institute for Health Metrics and Evaluation. *Global Burden of Disease Report*. 2010. <http://www.healthmetricsandevaluation.org>

Institution of Mechanical Engineers. *Global Food: Waste Not Want Not*. January 2013. <http://www.imeche.org/knowledge/themes/environment/global-food>

International Fund for Agricultural Development. "The Future of World Food and Nutrition Security." May 2012. [http://www.ifad.org/pub/factsheet/food/foodsecurity\\_e.pdf](http://www.ifad.org/pub/factsheet/food/foodsecurity_e.pdf)

IRIN. "Aid Policy: Millions Wasted on Shipping Food Aid." 13 July 2010. <http://www.irinnews.org/report/89815/aid-policy-millions-wasted-on-shipping-food-aid>

IRIN. "Timor-Leste: Poor Storage Adds to Food Insecurity." 26 April 2010. <http://www.irinnews.org/report/88925/timor-leste-poor-storage-adds-to-food-insecurity>

Kripke, Gawan. "President Obama, Tear Down this (Trade) Wall." *Oxfam America*. 13 February 2013. <http://policypov.org/oxfamamerica.org/2013/02/13/president-obama-tear-down-this-trade-wall/>

Kulichov, Jacob. "Haitian Farmers Undermined by Food Aid." *The Center for Public Integrity*. 11 January 2012. <http://www.publicintegrity.org/2012/01/11/7844/haitian-farmers-undermined-food-aid>

Lebun, Botumroath Keo. *Food Security and Nutrition: A Guide for Journalists*. UNESCO. 2011. [http://www.foodsecurity.gov.kh/sites/default/files/documents/Media\\_Handbook\\_Layout\\_Final\\_Email.pdf](http://www.foodsecurity.gov.kh/sites/default/files/documents/Media_Handbook_Layout_Final_Email.pdf)

MacFarquhar, Neil. "African Farmers Displaced as Investors Move in." *The New York Times*. 21 December 2010. <http://www.nytimes.com/2010/12/22/world/africa/22mail.html?pagewanted=all>

MacKay, Fiona. "Sowing the Seeds of Food Security." *The New York Times*. 27 November 2011. <http://www.nytimes.com/2011/11/28/business/global/28iht-RBOG-CAPE28.html?pagewanted=all>

Mejia, Luis A. "Fortifications of Food: Historical Development and Current Practices." *The United Nations Food and Nutrition Bulletin*. Vol. 15 No. 4. 1994. <http://archive.unu.edu/unupress/food/8F154e/8F154E03.htm>

MOMAGRI. "With Close to 40% of the Global Workforce, Agriculture is the World's Largest Provider of Jobs." <http://www.momagri.org/UK/agriculture-s-key-figures/With-close-to-40-%25-of-the-global-workforce>

agriculture-is-the-world-s-largest-provider-of-jobs-\_1066.html

Nellemann, Christian et al. "Global Trends (1960-2005) in Cereal and Meat Production, Use of Fertilizer, Irrigation and Pesticides." in *The Environmental Food Crisis: The Environment's Role in Averting Future Food Crises*. UNEP. 2009. <http://www.grida.no/graphic.aspx?series=rr-food-crisis/figure08.jpg>

Omamo, Steven Were et al. *Revolution: From Food Aid to Food Assistance*. World Food Program. 2010. <http://documents.wfp.org/stellent/groups/public/documents/newsroom/wfp228797.pdf>

Otsuke, Kei & Alberto Arce. *Brazil: A Desk Review of the National School Feeding Programme*. World Food Programme. July 2007. <http://documents.wfp.org/stellent/groups/public/documents/newsroom/wfp207419.pdf>

Palade, Dana. "Niger: The Peaks of Cowpea Storage - Food Security for Millions." *World Vision*. 7 May 2009. <http://wvi.org/agriculture-and-food-security/article/niger-peaks-cowpea-storage-food-security-millions>

Pollack, Andrew. "Executive at Monsanto Wins Global Food Honor." *The New York Times*. June 19, 2013. <http://www.nytimes.com/2013/06/20/business/monsanto-executive-is-among-world-food-prize-winners.html>

Porter, Eduardo. "Ending Aid to Rich Farmers May Hurt the Poor Ones." *The New York Times*. 18 December 2005. <http://www.nytimes.com/2005/12/18/weekinreview/18porter.html>

Provost, Claire. "Barack Obama Budget Calls for Sweeping Overhaul of US Food Aid." *The Guardian*. 11 April 2013. <http://www.theguardian.com/global-development/2013/apr/11/barack-obama-budget-us-food-aid>

Ribas, Flávia. "Brazil Launches Agriculture and Livestock Plan for the 2012/2013 Crop." *Brazil Government Press Release*. 28 June 2012. [http://www.brasil.gov.br/para/press/press-releases/brazil-launches-agriculture-and-livestock-plan-for-the-2012-2013-crop/br\\_model1?set\\_language=en](http://www.brasil.gov.br/para/press/press-releases/brazil-launches-agriculture-and-livestock-plan-for-the-2012-2013-crop/br_model1?set_language=en)

Rosenberg, Tina. "When Food Isn't the Answer to Hunger." *The New York Times*. Opinionator. 24 April 2013. <http://opinionator.blogs.nytimes.com/2013/04/24/when-food-isnt-the-answer-to-hunger/>

Stein, John Picard & Rodney Topper Smith. *The Economics of United States Grain Stockpiling*. Rand Corporation. March 1977. <http://www.rand.org/content/dam/rand/pubs/reports/2009/R1861.pdf>

Swanson, Abbie Fentress. "Small Farmers Aren't Cashing in with Wal-Mart." *NPR*. 4 February 2013. <http://www.npr.org/blogs/thesalt/2013/02/04/171051906/can-small-farms-benefit-from-wal-mart-s-push-into-local-foods>

The Times of India. "Waste of Food is Loss of Resources: UNFAO." 6 June 2013. [http://articles.timesofindia.indiatimes.com/2013-06-06/varanasi/39787809\\_1\\_food-wastage-global-food-production-food-items](http://articles.timesofindia.indiatimes.com/2013-06-06/varanasi/39787809_1_food-wastage-global-food-production-food-items)

The United Nations. *The Millennium Development Goals Report 2012*. <http://mdgs.un.org/unsd/mdg/Resources/Static/Products/Progress2012/English2012.pdf>

USAID. "Five Simple Tools Helping to Build Food Security." <http://50.usaid.gov/five-simple-tools-helping-to-build-food-security/>

USDA. "Biotechnology Frequently Asked Questions (FAQs)." Last Date Modified: 28 May 2013. <http://www.usda.gov/wps/portal/usda/usdahome?contentid=BiotechnologyFAQs.xml&navid=AGRICULTURE>

Von Braun, Joachim et al. *Accelerating Progress toward Reducing Child Malnutrition in India: A Concept for Action*. International Food Policy Research Institute. 2008. <http://motherchildnutrition.org/india/pdf/mcni-accelerating-progress-toward-reducing-child-malnutrition-in-india.pdf>

Von Grebner, Klaus et al. 2011 *Global Hunger Index: The Challenge of Hunger: Taming Prices Spikes and Excessive Food Price Volatility*. Welthungerhilfe. International Food Policy Research Institute. Concern Worldwide. October 2011. <http://www.ifpri.org/sites/default/files/publications/gh11.pdf>

Von Grebner, Klaus et al. 2012 *Global Hunger Index: The Challenge of Hunger: Taming Prices Spikes and Excessive Food Price Volatility*. Welthungerhilfe. International Food Policy Research Institute. Concern Worldwide. October 2012. <http://www.ifpri.org/sites/default/files/publications/gh12.pdf>

Wenzlau, Sophie. "Global Food Prices Continue to Rise." *Worldwatch Institute*. 11 April 2013. <http://www.worldwatch.org/global-food-prices-continue-rise-0>

The World Bank. "Land and Food Security." 2 October 2012. <http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTARD/0,contentMDK:23284610-pagePK:148956-piPK:216618-theSitePK:336682,00.html>

World Food Day USA. "Learn." <http://www.worldfooddayusa.org/learn>

World Health Organization. "Global and Regional Food Consumption Patterns and Trends." [http://www.who.int/nutrition/topics/3\\_foodconsumption/en/index.html](http://www.who.int/nutrition/topics/3_foodconsumption/en/index.html)

