

FOOD SECURITY AND NUTRITION PROGRAMS IN AFRICA

HEARING

BEFORE THE

SUBCOMMITTEE ON AFRICA, GLOBAL HEALTH,
GLOBAL HUMAN RIGHTS, AND
INTERNATIONAL ORGANIZATIONS

OF THE

COMMITTEE ON FOREIGN AFFAIRS
HOUSE OF REPRESENTATIVES

ONE HUNDRED FOURTEENTH CONGRESS

FIRST SESSION

—————
OCTOBER 7, 2015
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Serial No. 114-104
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Printed for the use of the Committee on Foreign Affairs



Available via the World Wide Web: <http://www.foreignaffairs.house.gov/> or
<http://www.gpo.gov/fdsys/>

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U.S. GOVERNMENT PUBLISHING OFFICE

96-908PDF

WASHINGTON : 2015

For sale by the Superintendent of Documents, U.S. Government Publishing Office
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FOOD SECURITY AND NUTRITION PROGRAMS IN AFRICA

WEDNESDAY, OCTOBER 7, 2015

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON AFRICA, GLOBAL HEALTH,
GLOBAL HUMAN RIGHTS, AND INTERNATIONAL ORGANIZATIONS,
COMMITTEE ON FOREIGN AFFAIRS,
Washington, DC.

The subcommittee met, pursuant to notice, at 12:45 p.m., in room 2255 Rayburn House Office Building, Hon. Christopher H. Smith (chairman of the subcommittee) presiding.

Mr. SMITH. The subcommittee will come to order, and good afternoon to everyone. We are here today to address the topic of food security and nutrition programs in Africa. As I think many of you know, I am sponsor of the Global Food Security Act of 2015, a bill which in its prior iteration passed the House, unfortunately it didn't gain support in the Senate although we are hopeful that that is something that will happen in the near future.

The Global Food Security Act, H.R. 1567, will help provide a long-term strategy to combat global hunger by authorizing the existing national food security initiative coordinated by USAID, commonly known as Feed the Future. It is a bill with broad bipartisan support including the original co-sponsorship of my friend and colleague, Ranking Member Karen Bass, who will be here momentarily, as well as Foreign Affairs Committee Chairman Ed Royce and Ranking Member Eliot Engel.

I am very happy that we will be joined shortly by the chief Democratic co-sponsor, Betty McCollum, with whom we have worked very closely on this legislation. I want to thank Betty as well as her dedicated staffer Jenn Holcomb for their hard work and dedication in promoting food security. This is truly a bipartisan collaboration that will result in enactment sooner rather than later of this legislation.

I also want to acknowledge that other subcommittee members have joined us as co-sponsors, Mark Meadows, Dr. Scott DesJarlais, and David Cicilline.

Investing in global food security is a policy that is both penny-wise and pound-wise. This program strengthens nutrition, especially for children during the critical first 1,000-day window, from conception to the child's second birthday. Indeed, there is perhaps no wiser investment that we could make in the human person than to concentrate on ensuring that sufficient nutrition and health assistance is given during those first 1,000 days of life—1,000 days

that begin with conception and continues through pregnancy, includes the milestone of birth, and then finishes at roughly the second birthday of that child. Children who do not receive adequate nutrition in utero are more likely to experience lifelong cognitive and physical deficiencies such as stunting. UNICEF estimates the one in four children worldwide is stunted due to lack of adequate nutrition.

By addressing nutrition during the first 1,000 days of life we can help lay the groundwork for the next 25,000 or 30,000 days of life, or whatever number our Creator has allotted, and ensure that they can be filled with good health, a good strong immune system, and all the other positives that accrue from that investment.

As our three witnesses will attest today, enhancing food security is also transformational in the lives of millions of smallholder farmers throughout the world, particularly women. Feed the Future teaches small-scale farmers techniques to increase agricultural yield, thereby helping nations achieve food security, something that is in the national security interest of the United States. Of course, we are our brothers' and sisters' keepers and it is important that we be backing this and having their backs in ensuring that this becomes a reality.

It is also economical in the long run and should lead to a reduction in the need for emergency food aid. The approach we have taken in the Global Food Security Act is fiscally disciplined, authorizing an amount for 2016. USAID nevertheless can do more with less by leveraging our aid with that of other countries, the private sector, NGOs, and especially faith-based organizations whose great work on the ground in so many different countries impacts so many lives. We will hear from Dr. Woo from Catholic Relief Services, momentarily, of the good work that her organization and other like-minded groups do throughout the world.

By statutorily authorizing this existing program which had its roots in the Bush administration and was formalized by President Obama, we are also increasing our oversight by requiring the administration to report to Congress. Political will is absolutely essential in enacting a global food security policy that will continue and hopefully expand.

Some things that I hope this hearing will bring to light are that such interventions in the lives of so many people in Africa, particularly in the first 1,000 days of life, are not only cost effective but morally imperative. Without objection, I will be adding testimony from Kimberly Flowers who is director of the Global Food Security Project for CSIS.

And she points out in her statement that Tanzania has received more Feed the Future funding than any other focus country in the world, and then she just pours it on with what has actually happened.

In 2014 alone, she points out, Feed the Future supported farmers, increased the value of their agricultural sales by more than \$19 million. One hundred thousand producers reported that they are using new technologies and management practices for the first time, significantly improving production and increasing incomes.

Feed the Future leveraged, she goes on, nearly \$152 million in private investments in food and agriculture. During the same time,

the U.S. Government reached 1.4 million with nutrition services to improve maternal and child health focusing on exclusive breastfeeding and complementary feeding, dietary diversity, and the uptake of zinc, iron, and other targeted micronutrient supplementation. This is a success story that obviously needs to be replicated and Tanzania is certainly a good showcase country where it has already done quite well. Let me just now introduce our panelists. And again, as members come I will recognize them for any opening comments that they might have. We will begin with Dr. Carolyn Woo who is president and CEO of Catholic Relief Services, the official international humanitarian agency of the Catholic community in the United States. Before coming to CRS in 2012, Dr. Woo served as dean of the University of Notre Dame's Mendoza College of Business and as an associate executive vice president at Purdue University. Dr. Woo was one of five presenters in Rome at the release of Pope Francis' encyclical on the environment in June of this year.

We will then hear from Mr. David Hong who is a global senior policy analyst who leads global policy engagement at the One Acre Fund, a nonprofit social enterprise that supplies smallholder farmers with the tools and financing they need to grow their way out of hunger and poverty. Previously, David analyzed donor agricultural policies at the ONE Campaign and consulted on private sector agricultural investments at Oxfam America.

We will then hear from Mr. Roger Thurow who joined the Chicago Council on Global Affairs as senior fellow on global agricultural and food policy in January 2010 after three decades at the Wall Street Journal. For 20 years he was a foreign correspondent based in Europe and Africa. His coverage of global affairs spanned the Cold War, the fall of the Berlin Wall, the release of Nelson Mandela, the end of apartheid, the wars in the former Yugoslavia, and many humanitarian crises.

I would like to now yield to Dr. Woo for such time as she may consume.

STATEMENT OF CAROLYN WOO, PH.D., PRESIDENT AND CHIEF EXECUTIVE OFFICER, CATHOLIC RELIEF SERVICES

Ms. Woo. Thank you, Chairman Smith, and also Representative Bass, when she comes, for holding this hearing. As mentioned, I am the president and CEO of Catholic Relief Services which is the international humanitarian and development agency of the U.S. Conference of Catholic Bishops. We currently operate in over 100 countries and implement our programming through credible existing local networks, frequently those of the local church.

Food security is a complex issue and requires a comprehensive response. Using what we call our Pathway to Prosperity model, we have improved nutrition and food security by helping farmers build sustainable livelihood through a multisectoral response. This actually includes agriculture development, nutrition, natural resource management, infrastructure development, and also formal market engagement. We have used Food for Peace resources for this work but increasingly Feed the Future also tackles these challenges.

Today I want to focus on nutrition specifically and make three points: The importance of nutrition, the importance of the Global

Food Security Act on nutrition, and the importance of U.S. leadership for nutrition. The first point, as Chairman Smith mentioned, poor nutrition is the underlying cause of 45 percent of deaths of children under 5 years old, yet only 1 percent of global development assistance is devoted to nutrition.

Poor nutrition leads to stunting, which causes significant and permanent mental and physical impairment. The tragedy of these permanent impacts on children is why Catholic Relief Services is so committed to addressing nutrition in a child's first 1,000 days of life beginning at conception and through a child's second birthday.

According to the World Bank, for every dollar invested in nutrition the return is \$18. Catholic Relief Services adopts community-based approaches and interventions to bring about good feeding practices and reduce exposure to illnesses. We help farmer groups, saving groups, and mother's groups grow nutritious food or increase their income to be able to buy these foods.

Let me just give you one example of how our Zambia USAID Feed the Future project is doing. Now this intervention is not like what you would expect. It is unusual in the sense that it doesn't deal with feeding, per se, directly, but it deals with income and asset generation. These are called Savings and Internal Lending Community groups called SILC. These are groups of small farmers who pool their money to make loans to each other so they don't take on debt. Those that take out loans from each other repay them with interest which gives all members a return on their investment.

Let me showcase for you one woman by the name of Misozi Zulu. She is a member of one such group. She is the mother of two boys and she is raising them alone. She joined 22 women and 7 men in forming one of the first SILC group in her village. Through this group she learned the basics of managing finance and record-keeping as well as the importance of good nutrition.

With greater financial knowledge and now access to capital, Misozi took out a small loan from her group and she invested in a bun-making business. She succeeded, paid off the loan and took out a bigger loan, this time to buy chickens. Loans after loans to date, Misozi has her own grocery store and is now raising cattle. With the money she earned, now her diet for herself and her children includes eggs, chicken, and vegetables which make for a much healthier diet. And also she now can afford the tuition for her children to go to school.

More than 80 percent of SILC members are women, and participation is slowly changing their own perceptions about their ability to contribute to household expenses. SILC groups are also an important channel to distribute nutrition related messaging and also to enable these small farmers to diversify their livelihood, increase their income, and support healthier diets.

The second point is the importance of the Global Food Security Act on nutrition. I want to thank Chairman Smith and also other sponsors of this bill because it elevates the importance of nutrition, making it a cornerstone in food security programming. This bill prioritizes vulnerable small-scale producers providing more transparency and helping the poor become more resilient.

The third and final point is that we believe that the U.S. must continue to focus on nutrition and make it a vital part of any food security and agriculture work. We urge the United States to participate in the Nutrition for Growth Summit in Rio next summer to exercise global leadership. We also advocate for continued support for development funding in Food for Peace as for its contribution to all the factors that improve nutrition. Thank you very much.

[The prepared statement of Ms. Woo follows:]

**Statement of Dr. Carolyn Y. Woo
President and CEO, Catholic Relief Services**

Hearing on Food Security and Nutrition Programs in Africa

**Testimony to the House Subcommittee on Africa, Global Health,
Global Human Rights, and International Organizations
Committee on Foreign Affairs**

October 7, 2015

Thank you Chairman Smith and Ranking Member Bass for this opportunity to provide testimony to the Subcommittee on Africa, Global Health, Global Human Rights, and International Organizations Committee on Foreign Affairs. I am Dr. Carolyn Y. Woo, and for the last 3 years I have served as President of Catholic Relief Services. I am honored to represent Catholic Relief Services in this hearing.

In my statement, I will review Catholic Relief Services' food security strategy, discuss how Feed the Future helps us to implement that strategy with a special focus on nutrition, and examine how the Global Food Security Act enhances the Feed the Future program.

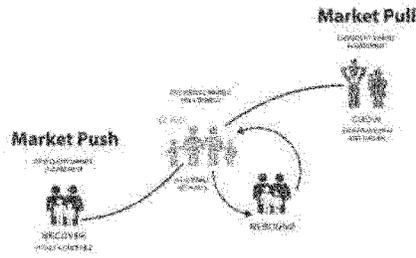
Catholic Relief Services and the U.S. Catholic Church

Catholic Relief Services is the international relief and development agency of the U.S. Catholic Church. We are one of the largest implementers of U.S. funded foreign assistance overall, and of international food aid. Our work reaches millions of poor and vulnerable people in 93 countries. Catholic Relief Services works with people and communities based on need, without regard to race, creed, or nationality. We partner with institutions of the Catholic Church and other local civil society groups in the implementation of programs which, from our experience, is essential to understanding the needs of the communities we work with, and ultimately the long-term success of our work.

Catholic Relief Services Concept of Food Security

A core focus of our work is on improving the livelihoods of small holder farm families as a means to achieve food security. Among these vulnerable families, the depth of poverty varies, depending on levels of assets, risk, commercial prospects, education, and ability to take on new technologies. Accounting for these differences, our approach varies with the level of need and is focused on moving smallholder farm families along a Pathway to Prosperity (see Graph 1), and ultimately out of any need of assistance.

Graph 1 - Pathway to Prosperity Model



Moving people along the Pathway to Prosperity requires transitioning families from subsistence farming into greater engagement with markets. Ultimately, small holder farming is a small business and even very vulnerable farmers – with the right skills, assets, and opportunities – can increase their income through increased connections to markets.

Catholic Relief Services provides customized support to farm families at all levels of the Pathway in areas of building and protecting assets, acquiring new business skills, adopting better farming practices, revitalizing the natural resource base while protecting or improving nutritional outcomes. The vast majority of the people we work with are subsistence farmers who would be classified in recover or maybe the build segments of our Pathway to Prosperity model. That said, changes in production and commercial behavior by one group in a community will affect others, so our programming incorporates a community-wide strategy and uses a gender-sensitive multi-sectoral, integrated approach, including agricultural production, nutrition, natural resource management, and market engagement. We believe that this holistic, community-wide approach is the most effective way to achieve long-term food security.

Development food aid, especially Food for Peace development programs, has been a central source of funding for projects that help vulnerable people, particularly those at the lower ends of the Pathways model, move up the economic ladder towards greater self-sufficiency. The success of these projects centers on the multiyear, multi-sectoral approach. They address community and household needs for a long enough period of time to effect both behavior change and construct and rehabilitate critical infrastructure, including the natural environment. While food aid has had a long track record of success, we have seen over the last five years the establishment of another important program directed at improving food security in poor countries – the Feed the Future Initiative.

Feed the Future

In 2009, following food price spikes that hit poor countries in Africa especially hard, the United States along with other G-20 countries pledged significant resources to improving food security in poor countries. In the following year, the Feed the Future Initiative was conceived and became the United States' vehicle for implementing this pledge. Today, Feed the Future is a "whole-of-government" initiative that is intended to concentrate resources and coordinate efforts from multiple agencies for greater results in food and nutrition security. Projects are based on country-led investment plans and require participating countries to make commitments to also invest their own resources in agricultural development activities. At present there are 19 countries that are part of the Feed the Future Initiative.

Catholic Relief Services supports the Feed the Future Initiative. As noted above, food aid programs have long addressed long-term food security needs in poor countries, but investments made through those programs have never been commensurate with the level of need. For instance, Food for Peace development programs in recent years has only been funded at around \$350 million/year. Dedicated Feed the Future funding provided through the Development Assistance account has reached \$1 billion or more in the last few years, marking a significant and much needed increase in investment by the United States in the area of food security.

While Feed the Future is a relatively new program, it has already seen important changes in implementation. For instance, the first few years of Feed the Future saw significant investments directed at smallholder farmers at the higher end of our Pathway model. We noted in testimony to the Senate Foreign Relations Committee in 2012 that Feed the Future

investments needed to focus more on the most vulnerable in the countries in which it was operating. Since then we have seen additional resources directed to the most vulnerable in existing and new projects, and we are grateful for this attention to the needs of these at-risk farm families. Still, more and sustained investments in people in the lower segments of our Pathway model are warranted. Ensuring pro-poor approaches focused on smallholder farmers is vital, not only because the vast majority of people in Feed the Future countries are at the lower ends of the Pathway, but also according to the Food and Agriculture Organization smallholder farmers produce 70% of the world's food. They are also the farmers whose land and livelihoods are most impacted by shifting weather patterns and degradation of the natural environment. With world population expected to grow to 9.7 billion by 2050, the Food and Agriculture Organization estimates that agricultural production needs to grow by 70% to keep up. Feed the Future will be a critical tool in making the kinds of investments necessary to reinvigorate smallholder farming and help these families adapt to changes that are already impacting agriculture, and food and nutrition security.

Catholic Relief Services is presently implementing four Feed the Future projects as either the prime awardee or a sub awardee, and in each of these our work is largely, if not exclusively, directed to the most vulnerable.

Catholic Relief Services Feed the Future Projects

Zambia/Mawa: Catholic Relief Services leads the Feed the Future Zambia Mawa Project, a \$10 million five-year project benefiting 21,500 smallholder farming households in two districts in Eastern Province, Zambia. This project helps smallholder families prosper by finding the balance between harnessing agriculture for consumption and for income through engagement with markets. To support the transition from subsistence farming to producing for markets, Mawa helps farmers and their families build essential skills to move them toward sustainable market engagement. Through community-based savings groups, trained community field agents teach basic financial skills to help farmers maintain and grow savings while also obtaining loans. They also teach joint budget planning to ensure the needs of all household members are considered, particularly nutritional needs of the children. Mawa also helps farmers adapt to change and manage risk in an environment where changing markets, environmental degradation and volatile weather threatens vulnerable farmers. Sustainable production skills enable farmers to protect and maintain the natural resources upon which their agricultural livelihoods depend. Business and marketing skills that are also provided prepare groups of farmers to produce for the market by organizing their production process to meet market demand. Across this continuum of services, Mawa's network of trained nutrition volunteers promote better nutrition and health by helping families build the knowledge and skills necessary to produce and preserve sufficient quantities of diverse, nutritious and quality foods, while also teaching good feeding, care and hygiene practices, which are essential for a healthy start to life. Mawa's foundational gender approach improves household dynamics that support the adoption of the promoted agriculture and nutrition behaviors and use of income, savings, and other project benefits for household productive and nutritional needs.

Ethiopia/GRAD: Catholic Relief Services is a subawardee to CARE in the Graduation with Resilience to Achieve Sustainable Development (GRAD) project, a five-year program benefiting 75,000 smallholder farming households who are part of Ethiopia's Productive Safety Net Program. Catholic Relief Services is providing technical leadership of the nutrition element

of this project. Initially nutrition was not a strong element in the program, but after implementation began its importance was elevated. Our work focuses on promoting behavior change to encourage breastfeeding, greater dietary diversity through the adoption of household vegetable gardens and livestock rearing (chicken, goats, sheep), and the promotion of Alive and Thrive communications through savings groups. Initial results show that households are consuming more vegetables that are being produced from their household vegetable gardens and more eggs from their backyard poultry. Initial results also show that interventions have led to reduced admission rates for out-patient therapeutic care for malnutrition compared to the same month in previous year.

Nigeria/Livelihood: Catholic Relief Services is leading the Feed the Future Nigeria Livelihoods Project, a \$20 million five-year project in Northern Nigeria. It is using a multi-sector approach that will help 42,000 very poor households grow their agriculture production, incomes and improve nutrition. Most households served in the project are considered very vulnerable with limited market engagement, and thus fall into the Recover segment of our Pathway model. This project improves agricultural practices, including production and post-harvest storage for nutrient rich crops/livestock already being produced and promotes a market-oriented approach to diversify production. The project also makes cash transfers to some families to help meet nutritional needs, recover assets and overcome barriers to income-generating activities. To support sustainability, it strengthens the institutional capacity of government systems to implement poverty reduction programs and reinforce accountability between the government and citizens. The Project developed a Social and Behavior Change Communication (SBCC) package of interventions for nutrition and hygiene based on formative research. The package centers on 21 key messages including Infant and Young Child Feeding (IYCF), vitamin and mineral supplementation, home gardening, rearing of small livestock, and handwashing. Other elements of the SBCC package include a local recipe guide, food preservation manual, and integration of nutrition and hygiene into non-formal learning centers. Underlying these interventions is a case worker model approach that empowers households to set their own goals, identify services appropriate to household needs, participate in economic opportunities facilitated by the project according to household capacity and financial readiness, and track and document impact of services.

Tanzania/Nafaka: Catholic Relief Services is a subawardee to ACIDI/VOCA in the Feed the Future Nafaka Staples Valued Chain project. Catholic Relief Services contribution to the project is to increase the incomes and resilience for vulnerable smallholder households who are unable to participate fully in the maize and rice value chains of the larger project. Our objective is to bridge the gap between smallholders' current status and market-based agricultural production activities. We use Savings and Internal Lending Communities (SILC) to help vulnerable households build their financial resilience and decrease their vulnerability to shocks. These SILC groups consist of 20-30 smallholder farmers who pool their savings and lend to their own members. This provides capital for SILC members to invest in income generation activities (better seeds, livestock, side businesses), and the interest paid by the member taking the loan provides all SILC members a return on their investment. By September 2015, more than 12,000 vulnerable households have been organized into 616 SILC groups. These groups have accumulated savings of \$645,000. Catholic Relief Services also works with agriculture extension agents to promote the planting of household gardens as both a source for income-generation and dietary diversity. In order to strengthen the nutritional outcomes of these activities, we include nutrition messaging on crop selection, nutrition education on dietary

diversification, meal planning, and processing and preservation (in collaboration with USAID's Tuboreshe Chakula food fortification project).

Child Nutrition and Feed the Future

Malnutrition is one of the world's most serious but least addressed problems. The human and economic costs of malnutrition are enormous and fall hardest on women, children and the poor. Nearly 3 million children perish each year due to malnutrition, a fact made more tragic because their deaths are entirely preventable. Given its long-term importance, the Feed the Future Initiative has made nutrition one of the corner stones in its overall response.

We know that proper nutrition in the first 1,000 days of a child's life, which roughly is measured from conception to the child's second birthday, is critical for attaining full integral human development. According to the World Health Organization there are 171 million children who are stunted—an irreversible consequence of chronic malnutrition and repeated exposure to diseases such as malaria and diarrhea—during their first 1,000 days of life. It is estimated that 40% of children under 5 years old in Africa are stunted. These children will miss more school due to illness, will have diminished educational outcomes and will earn less as adults. This translates to significant lost productivity on a national scale in countries like Uganda (5.6%) and Ethiopia (16.5%). With appropriate nutrition during the first 1,000 days, a child will have improved cognitive and physical development, better health, and will be better able to earn an income as an adult compared to a peer who suffers from stunting. According to the World Bank, every \$1 invested in stunting reduction generates \$18 in economic returns.

Stunting is a complex problem with many contributing factors. According to the 2014 Global Nutrition Report, “the idea that nutrition is purely a matter of access to enough food remains one of the most stubborn myths impeding good policy among political leaders. Instead, nutrition should be seen as requiring the right nutrients at the right time along with strengthened health care and social protection, especially during pregnancy and the first 2 years of life.” A child's overall nutritional status is determined by interrelated factors like access to diverse, safe and nutrient-rich food; safe water, sanitation and good hygiene practices; availability of adequate health care services; and parents who understand and have the capacity to support a child's healthy development. These factors are influenced by interventions in multiple sectors including nutrition, agriculture, health, and water and sanitation. Beyond the biological determinants of nutrition, we also need to address social determinants such as gender dynamics that do not support safe pregnancy or optimal health and nutrition for young children.

Feed the Future supports both nutrition-specific and nutrition-sensitive interventions. Nutrition-specific interventions are directed at the immediate causes of undernutrition, including adequate food and nutrition intake, feeding, caregiving, and parenting practices (optimal breastfeeding and complementary feeding), and the prevention (through better hygiene and meal preparation practices) and treatment of diseases that undermine nutrition like diarrheal diseases. Nutrition-sensitive interventions address the underlying causes of undernutrition included food security and quality, such as agricultural practices.

Case Study – Nutrition in the Feed the Future Zambia Mawa Project

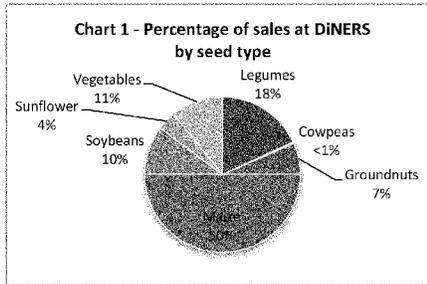
Catholic Relief Services' Mawa project in Zambia provides very good examples of both nutrition-specific and nutrition-sensitive interventions being incorporated into Feed the Future.

In Mawa, Catholic Relief Services supports nutrition-specific interventions through two approaches: Community Led Feeding and Learning Sessions (CCFLS) and Care Groups. The CCFLS, an approach that aims to prevent undernutrition in children, targets growth-faltering children and Pregnant and Lactating Women (PLW). It is a peer-to-peer support approach that targets the critical period when complementary foods are introduced into a child’s diet. It promotes locally available foods to support infant feeding practices, new nutrition messaging and practices, and positive behavior change. Participating households are exposed to new food processing and preservations techniques, like blanching vegetables before drying, drying in the shade, and drying vegetables off the ground, all simple changes that better preserve the nutritional content of food. Such behaviors contribute to better storage of food that can be used during the lean season, thus smoothing out consumption across the year. Home-visits motivate the caregivers to apply new knowledge and practices to support child growth. To ensure whole-family involvement in child feeding and support for PLW’s increased nutritional needs, CCFLS hosts “Father’s Day” during the 12-day session, to improve their understanding in nutrition and engagement on child feeding. Male caregivers are also invited during household visits to receive nutrition messages.

Another nutrition-specific approach Mawa uses is the Care Group. Care Groups are made up of volunteers who receive training in various nutrition messages dealing with infant and young child feeding, care, and hygiene practices. These volunteers are expected to share this information with ten neighbor households in their communities through monthly visits. Volunteers distribute Child Health Reminder Cards that households use to help them remember the nutrition concepts they are taught. Participation of households in the program is monitored using a specially designed mobile phone application that registers participants, tracks attendance, records key child measurements like height and weight, and reminds participants of lessons they were taught.

A key nutrition sensitive intervention has been the incorporation of specialized seed fairs know as Diversification for Nutrition and Enhance Resilience (DiNER) Fairs. The project prioritized assistance to vulnerable households that included pregnant women and those with children under two years old. The objective was to provide these households, using a market-based approach, access to a diverse set of crops which is necessary for good nutritional outcomes. Catholic Relief Services organized a number of DiNER fairs throughout Mawa project areas. We worked with the Government of Zambia to ensure seed quality and compliance and small and large seed companies (e.g., Syngenta, Pioneer) to sell their seeds at the DiNER fairs. Seeds sold included corn and soybean, other legumes, and vegetables, many of which are improved varieties that are drought or flood-tolerant. Target households were give vouchers to supplement what cash resources they had to buy products at the fairs.

To ensure uptake, prior to DiNER Fairs beneficiaries received education on the importance of dietary diversity and they participated in household decision making discussions to facilitate joint decisions to meet all household (including nutrition)



needs. After the fairs participants were interviewed to find out what they purchased, how much it cost, and what motivated their purchasing decisions. Vendors were also interviewed to determine what was in greatest demand and how much they received in vouchers and cash. Initial results indicate that DiNER Fairs have led to the purchase of more diverse and nutritionally significant seeds (see Chart 1). Understanding such trends will ultimately help programs to better direct resources to achieve desired outcomes.

Global Food Security Act

To date, Feed the Future has been an Administration led initiative. While its activities are broadly permitted and authorized by the Foreign Assistance Act, actual guidance by Congress on how the program is implemented has been relatively limited thus far. Under the direction of Chairman Chris Smith and Representative Betty McCollum, H.R. 1567, the Global Food Security Act (GFSA) provides important Congressional direction and oversight to the activities conducted under the auspices of Feed the Future (as does companion legislation in the Senate, S. 1252). Catholic Relief Services supports H.R. 1567 as marked up by the House Foreign Affairs Committee earlier this year, and encourages Congress to enact this legislation.

As noted earlier, Catholic Relief Services has been a supporter of Feed the Future for some time. That said, we are also on record identifying needed improvements for the program. In testimony before the Senate Foreign Relations Committee in 2012, we noted that Feed the Future 1) lacked adequate focus on providing assistance to the most vulnerable households (in the Recover segment of our Pathways model), 2) that contracts were favored more than cooperative agreements when the latter are more appropriate for development activities because they provide more flexibility to respond to communities' felt needs and adapt quickly to unanticipated changes on the ground, and 3) there was a lack of inclusion of international and local civil society input in program design. We are pleased to say that USAID has improved its practices to varying degrees on all three fronts. More work needs to be done, however, and the GFSA will help accomplish this.

First, the GFSA prioritizes assistance to small-scale producers, who are defined by the bill as smallholder farmers with five or less hectares of land. This will help direct and ensure adequate Feed the Future resources are focused on the most vulnerable households, who by definition have very small amounts of land available to them. Second, through the GFSA it is the Sense of Congress that "open and streamlined solicitations" and "the most appropriate procurement mechanism[s]" are to be used in funding Feed the Future projects, which as we discussed above are cooperative agreements if the objective is sustainable development outcomes. Coupled with greater reporting requirements that provide "detailed accounting of spending," including by recipient, we will have a better picture of how contracts and cooperative agreements are used in programming and Congressional support to make adjustments if this mix is not the most appropriate to achieve development outcomes. Lastly, the GFSA requires USAID to establish meaningful platforms for regular consultation and collaboration with a host of stakeholders, including faith-based, private voluntary, and local nongovernmental and civil society organizations.

In addition to addressing our outstanding issues with Feed the Future, we would also like to note other aspects of the bill that we strongly support. These include its recognition of nutrition-related activities, especially during a child's first 1,000 days of life, importance of land tenure rights, recognition that faith-based organizations have significant and valuable

contributions to make to development objectives, and recognition that resilience is a fundamental part of programming. We hope the latter will allow Feed the Future to make necessary investments in natural resources management and revitalization of farm land (i.e., improving soil health, access to water) that will help smallholder farm families who are dependent on increasingly degraded environment. Indeed, this is good example of the interconnectedness of development work, where we may be improving the lives of children through better nutrition, but unless they have a thriving environment in which to live, our efforts to improve their lives overall will be diminished.

Conclusion and Closing Recommendations

Much of the work of Catholic Relief Services is directed to moving vulnerable, subsistence level smallholder family farms up our Pathway to Prosperity model through greater production, increased capacity, market engagement, and improved nutrition, so that ultimately they can lead healthy, self-sufficient lives. Feed the Future supports this process, by not only focusing on smallholder farmers who are most market ready, but also reaching those farmers who are most vulnerable. Catholic Relief Services is proud to implement Feed the Future programs that do just that.

While Feed the Future's emphasis continues to be on agriculture-led development, it has also incorporated much needed nutrition-related programming. We strongly advise that Feed the Future work continues this trend and that nutrition related interventions are incorporated in all Feed the Future projects from the start. Nutrition is, and must continue to be a vital component of food security and agriculture, and not an afterthought.

Additionally, we strongly advise Congress to pass the GFSA in the near term, to solidify USAID's course corrections and make permanent its focus on important aspects of development like nutrition. Indeed, by integrating improved nutritional outcomes, especially for women and children, into a global food security and agriculture strategy, the GFSA can maximize the full range of United States' investments in development.

Lastly, we strongly urge that nutrition remain a priority not just in Feed the Future, but all foreign assistance programming. It is essential to ramp up investment in nutrition in order to end preventable child and maternal deaths and we hope that the U.S. government will take the opportunity at the up-coming Nutrition for Growth Summit in Rio next summer to become a global leader on this issue.

Mr. SMITH. Dr. Woo, thank you very much for your testimony. Without objection, your full statement will be made part of the record as well as that of our other distinguished witnesses. Mr. Hong?

**STATEMENT OF MR. DAVID HONG, DIRECTOR OF GLOBAL
POLICY, ONE ACRE FUND**

Mr. HONG. Thank you, Chairman Smith, Ranking Member Bass, Congresswoman McCollum and distinguished members of the subcommittee. Feeding a population of 9 billion people by 2050 is one of the greatest, if not the greatest, challenges facing humanity. We will need to produce at least 60 percent more food than we do today, and most of that increased production will need to come from the 2.5 billion people that work on small farms around the world.

Today these smallholder farmers are the single largest group of the world's population living in poverty. They live in remote areas and do not have access to basic agricultural tools and trainings. As a result, they struggle to grow enough to feed their families and face an annual hunger season of meal skipping and meal substitution.

In the future, these hungry farmers have the potential to dramatically increase their yields, not just to feed themselves and their families but to feed the world. Agriculture yields in Africa for most staple food crops could be two to four times what they are today. And best of all, we know exactly what we need to do to help smallholder farmers achieve these yield increases.

One Acre Fund is an agriculture organization that has developed an operating model to help smallholder farmers run profitable businesses. We are unique in several ways. First, we only serve smallholder farmers, primarily in east Africa, who typically farm on one acre of land or less. Second, we are technically a nonprofit but we operate like a business. Farmers pay for our products and services. And third, we have intentionally built a scalable model and we are growing fast. We serve over 300,000 smallholder farmers in Kenya, Rwanda, Burundi, and Tanzania, and we plan to serve 1 million farmers by 2020.

We offer farmers a simple four-part operating model. First, we offer financing for farm inputs such as hybrid seed and fertilizer. We only finance productive assets. Farmers organize themselves into groups and are jointly liable to repay their loans, which is similar to microfinance.

Second, we distribute seed, fertilizer and other products such as tree seeds and solar lights within walking distance. Smallholder farmers live in remote and isolated areas so getting products and services close to where they live is critical.

Third, we offer training on modern agricultural techniques. Many farmers don't know how to apply fertilizer or how to plant in rows with the correct spacing, and we offer interactive, in-person trainings throughout the agriculture season.

And fourth, we offer market facilitation to help farmers maximize their profits from harvest sales. Just after harvest the market is flooded with crop surpluses, driving prices down. With proper

training on safe storage, farmers can wait to sell their crops until market prices increase.

This operating model has proven impact. On average, farmers working with One Acre Fund increase their profits on supported activities by 57 percent, or about \$128. And for a farmer living on less than \$2 a day, this is a significant amount of money.

According to our data, farmers invest their income gains in new businesses, productive assets for the farm such as livestock, and school fees for their children. An important aspect of our model is our flexible repayment system. Farmers can repay their loan at any time in any amount throughout the entire growing season as long as they repay in full by harvest. In 2014, I am pleased to report that the average repayment rate was 99 percent, and in two countries 100 percent of clients repaid their loans.

Farmer repayment enables us to move toward financial sustainability in our field operations. Seventy-four percent of our field expenses were covered by farmer repayment in 2014 and the nature of our business model stretches donor dollars to achieve more impact. Every dollar in grant funding that we receive generates approximately \$3 in additional farmer income.

In a constrained budget environment, it is even more critical for development organizations to maximize efficiency and impact. We are working hard to achieve financial sustainability in our field operations so that we can use donor resources to leverage even greater impact at a global scale. For example, in 2012, USAID Kenya awarded One Acre Fund with \$3½ million to significantly scale up our Kenya operations. Over a 3-year period we delivered agriculture loans to nearly 277,000 farm families, the majority of whom were women, and we achieved repayment rates of 99 percent.

One Acre Fund has demonstrated that it is possible to help hungry farmers become successful business people, with surplus production that they can bring to local markets. Smallholder farmers are the answer to our global food security challenge. When they have access to basic tools and technologies they thrive.

Thank you, Chairman Smith, Ranking Member Bass, and subcommittee members for the opportunity to discuss our work and for putting global food security high on the development agenda. As you know, making progress on agriculture, food security, and nutrition is imperative to the health and wellbeing of future generations. May we not let them down.

[The prepared statement of Mr. Hong follows:]



**Written statement of David Hong
Global Senior Policy Analyst, One Acre Fund**

Before the House Foreign Affairs Committee Subcommittee on Africa, Global Health, Global Human Rights, and International Organizations

**Hearing: *Subcommittee Hearing: Food Security and Nutrition Programs in Africa*
October 7, 2015**

Feeding a population of nine billion people by 2050 is one of the greatest – if not *the* greatest – challenge facing humanity. We will need to produce at least 60 percent more food than we do today. Most of that increased production will need to come from the 2.5 billion people that work on small farms around the world. Today, these smallholder farmers are the single largest group of the world's population living in poverty. They live in remote areas, and do not have access to basic agricultural tools and trainings. As a result, they struggle to grow enough to feed their families and face an annual “hunger season” of meal skipping and meal substitution.

In the future, these hungry farmers have the potential to dramatically increase their yields, not just to feed themselves and their families, but to feed the world. Agriculture yields in Africa for most staple food crops could be 2-4 times what they are today. And best of all, we know exactly what we need to do to help smallholder farmers achieve these yield increases.

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- First, we offer financing for farm inputs such as hybrid seed and fertilizer. We only finance productive assets. Farmers organize themselves into groups and are jointly liable to repay their loans, similar to microfinance.
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- Third, we offer training on modern agricultural techniques. Many farmers don't know how to apply fertilizer, or how to plant in rows with the correct spacing. We offer interactive, in-person trainings throughout the agriculture season.
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With proper training on safe storage, farmers can wait to sell their crops until market prices increase.

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In a constrained budget environment, it's even more critical for development organizations to maximize efficiency and impact. We're working hard to achieve financial sustainability in our field operations so that we can use donor resources to leverage even greater impact at a global scale. For example, in 2012 USAID Kenya awarded One Acre Fund with \$3.5 million to significantly scale up our Kenya operations. Over a three-year period we delivered agriculture loans to nearly 277,000 farm families, the majority of whom were women. We achieved repayment rates of 99%.

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Mr. SMITH. Thank you, Mr. Hong, very much.
Mr. Thurow.

STATEMENT OF MR. ROGER THUROW, SENIOR FELLOW, GLOBAL AGRICULTURE AND FOOD, THE CHICAGO COUNCIL ON GLOBAL AFFAIRS

Mr. THUROW. Thank you, Chairman Smith, Ranking Member Bass, distinguished members of the subcommittee, for inviting me to testify today on the vital subjects of global food security and nutrition. Nourishing the world in the face of population, climate, and scarce resource pressures is a great challenge of our time.

I have been investigating and writing about this challenge for many years, first as a reporter and foreign correspondent with the Wall Street Journal, and now as an author of two books, with a third on the way, on global food security on nutrition, as a senior fellow for the Chicago Council on Global Affairs.

In my first book, "Enough: Why the World's Poorest Starve in an Age of Plenty," I and my co-author Scott Kilman explored how we had brought hunger with us into the 21st century; how the neglect of agriculture development and nutrition in the post-green revolution years resulted in increasing levels of hunger and malnutrition, particularly among smallholder farmers themselves, creating this cruel irony: The hungriest people in the world are farmers. Hungry farmers. What an awful, shameful oxymoron.

In my next book, *The Last Hunger Season*, I set out to illuminate the lives of these smallholder farmers. There are hundreds of millions of them in the developing world, as we have heard the majority of them are women, and their importance for securing our global food chain. The more they succeed in feeding their families and neighbors through sustainable agriculture development through efforts like Feed the Future, the more we will succeed in our great challenge to nourish the world.

At this point let me note that the Chicago Council has recommended the authorization of U.S. global food security efforts like Feed the Future and appreciates the work of the chairman, the ranking member, and others in their endeavors of this on that front.

In my reporting, I followed four smallholder farmers in western Kenya for 1 year, this in 2011. The transformation of their lives when they finally had access to the essential elements of farming—better quality seeds, small doses of fertilizer, training, storage, and the financing to pay for it all—was remarkable. One of the families had a tenfold increase in their harvest in one season.

They were the Biketis—father Sanet, mother Zipporah, and their four children. They were in desperate shape when I first met them. Their youngest child, David, was manifestly malnourished. They were in the middle of their hunger season, this period of profound deprivation when food is rationed and meals shrink. In the previous planting season they had no access to fertilizer or seeds and they could only plant 1/4 of an acre. Their harvest was meager. Only two 100-kilogram bags of corn, which is their staple food. That barely lasted 2 months and then they plunged into their hunger season.

The next year, joining the One Acre Fund, they then had this access to the essential elements of farming. They were able to plant one full acre, and their harvest was a magnificent 20 bags of corn—two tons. With that tenfold increase, they had more than enough to conquer their hunger season and they now had a surplus for the first time in their lives which they could use for school fees, for necessary medicine, for construction of a small house with a metal roof that didn't leak in the rain anymore, and most importantly, they could afford a second planting season with a wide array of vegetables to diversify their diets and greatly improve their nutrition.

From Zipporah I learned that the deepest depth of misery during the hunger season was to be a mother unable to properly nourish her children, which brings me to my current reporting on the importance of good nutrition in the 1,000 days, the time, as we have heard, from when a woman becomes pregnant to the second birthday of her child. This is the most important time of human development. For what happens in those 1,000 days, the foundation of healthy physical development to rapid growth of brain and cognitive skills, determines to a large extent the course of a child's life—the ability to grow, learn, work, succeed. And by extension, the long term health, stability, and prosperity of the societies in which the children and which all of us live.

Good nutrition is the cornerstone of this growth. It is the vital fuel of the 1,000 days. Any disruption in nutrition during this time can lead to stunting—physical, mental, or both. Today, one in every four children in the world is stunted. A child who is stunted is sentenced to a life of underachievement, diminished performance in school, lower productivity and wages in the workplace, more health problems throughout life, a greater propensity for chronic diseases like diabetes and heart problems.

The impact, the cost, ripple throughout society, from the individual, to the family, to the community, to the nation, to the entire world. The cumulative toll of all this stunts the world economy by as much as 5 percent. For you see, a stunted child in Africa or Asia or here in the Americas is a stunted child everywhere.

In my reporting, I am following moms and their children throughout the 1,000 days in four parts of the world: India, Uganda, Guatemala—countries which face immense challenges of malnutrition and stunting—and in Chicago. Why Chicago? Because the issue of good nutrition is not just something that is over there somewhere, it is also vital right here in the United States. Good nutrition in the 1,000 days is crucial for the success of American children in school and later in the workplace here as healthy adults who are contributing the nation's productivity and growth.

Nutrition and all that supports it—clean water, sanitation, hygiene, healthcare, agriculture—are essential components of global food security. In development work, all these elements must come together at once at the same time.

And finally, here is where the United States Government can, and should, lead with congressional action to authorize legislation that commits the U.S. to a long term global food nutrition security strategy with the success of smallholder farmers at the center, with policies that strengthen nutrition-smart agriculture development and that expand access to and spur the consumption of healthy

foods, and food aid and social protection programs with the focus on the crucial importance of the 1,000 days.

For that is where it all begins, and it is where our actions on global food security and where American leadership and agriculture development and improved nutrition around the world has its greatest impact. Thank you again for this opportunity to testify.

[The prepared statement of Mr. Thurow follows:]

Roger Thurow
Senior Fellow, Global Agriculture & Food
Chicago Council on Global Affairs

Testimony Submitted to the
House Foreign Affairs Committee Subcommittee on Africa, Global Health, Global Human
Rights, International Organizations
October 7, 2015

Thank you Chairman Smith, Ranking Member Bass, and distinguished Members of the Committee. Thank you very much for inviting me to testify today on the vital subjects of global food security and nutrition. Properly nourishing the world -- in the face of population, climate, and scarce resource pressures -- is the great challenge of our time.

I have been investigating and writing about this challenge for many years. First, as a reporter and foreign correspondent with the Wall Street Journal, and most recently as an author of two books -- with a third on the way -- on global food security and nutrition, as a senior fellow for the Chicago Council on Global Affairs. As you know, the Chicago Council has been a thought leader in global agricultural development for a number of years. Today, I would like to speak about some of my experiences from this reporting and some of the people I've written about -- observations that I believe are relevant to the committee's work.

In my first book, *Enough: Why the World's Poorest Starve in an Age of Plenty*, I and my co-author Scott Kilman explored how we had brought hunger with us into the 21st century. We looked at how the neglect of agricultural development and nutrition in the post-green revolution years resulted in increasing levels of hunger and malnutrition. There were one billion chronically hungry people entering the new century, with the numbers on the rise. Most of them were smallholder farmers in the developing world, especially in Africa. Our neglect of agricultural development had created the cruel irony that the hungriest people in Africa -- in the world -- were smallholder farmers. "Hungry Farmers." What an awful, shameful oxymoron.

In my next book, *The Last Hunger Season*, I set out to illuminate the lives of these smallholder farmers, and to show how important the contributions of these farmers are to global food security, and to all of us.

The one thing eminently clear from my reporting was the vital role that these smallholder farmers -- hundreds of millions of them around the world -- have in securing the global food chain. The more that they succeed -- through agricultural development, through efforts like **Feed the Future** -- the more we will all succeed in our efforts to nourish the world. And at this point let me note that the Chicago Council has recommended the authorization of U.S. global food security efforts like Feed the Future and appreciate the work of the Chairman, the Ranking Member and others in their endeavors on that front.

In my reporting, I followed four smallholder farm families in western Kenya for one year, in 2011. The transformation in their farming and in their lives when they finally had access to the essential elements of farming -- better quality seeds, small doses of fertilizer, training, storage, and the financing to pay for it all -- was remarkable. One of the families had a 10-fold increase in their harvest.

They were the Biketis -- father Sanet, mother Zipporah and their four children. They were in desperate shape when I first met them. Their youngest child, David, was manifestly malnourished. They were in the middle of the hunger season, a period of profound deprivation when food is rationed. In the previous planting season, they had no access to seeds or fertilizer or the financing to acquire them. They could only plant one-quarter of an acre of corn, their staple food; their harvest was meager, only two 100-kilogram bags of corn. It barely lasted two months, and then they plunged into the hunger season.

Desperate to improve their farming, and, thereby, their lives, they joined the one acre fund, a social enterprise organization that we'll be hearing more about from David Hong. Finally, with access to the essential elements of farming, they were able to plant one full acre, and their harvest was a magnificent 20 bags of corn -- two tons. With that, they had more than enough to conquer their hunger season -- they now had a surplus for the first time which they could use for school fees, for necessary medicine, for the construction of a new house with real bricks and a metal roof that didn't leak in the rain, and, perhaps most importantly, they could afford a second planting season, a wide-array of vegetables, to diversify their diets and greatly improve their nutrition.

From Zipporah I learned that the deepest depth of misery during the hunger season was to be a mother unable to properly nourish her children.

Which brings me to my current reporting on the importance of good nutrition in the 1,000 days, the time from when a woman becomes pregnant to the second birthday of her child. This is the most important time of human development. For what happens in those 1,000 days -- the foundation of healthy physical development, the rapid growth of the brain and cognitive skills -- determines to a large extent the course of a child's life -- the ability to grow, learn, work, succeed. And, by extension, the long-term health, stability and prosperity of the societies in which the children -- and all of us -- live.

Good nutrition is the cornerstone of this growth, the vital fuel of the 1,000 days. Any disruption of nutrition during this time leads to stunting -- physical, mental, or both. The World Health Organization and others tell us that one in every four children in the world today is stunted. A child who is stunted is sentenced to a life of underachievement: diminished performance in school, lower productivity and wages in the workplace, more health problems throughout life and a greater propensity for chronic illnesses like diabetes and heart disease as an adult.

The impact of under-education, of lost productivity, of more health care ripples throughout society. From the individual, to the family, to the community, to the nation, to the entire world. The cumulative toll of all this stunts the world economy by as much as 5%. That's the equivalent of several trillion dollars in economic activity, squandered every year.

You see, a stunted child in Africa or Asia or here in the Americas, is a stunted child everywhere.

In my reporting, I'm following moms and their children throughout the 1,000 days in four parts of the world: India, Uganda, Guatemala -- countries which face immense challenges of malnutrition and stunting -- and Chicago.

Why Chicago? Because the issue of good nutrition is not just something “over there” somewhere, it is also vital here in the U.S. Good nutrition in the 1,000 days is important for the success of American children in school and later in the workplace, as healthy adults who are contributing to the nation’s productivity and growth instead of weighing it down with increased health care costs.

Nutrition is an essential component of global food security. Nutrition and all that supports it – clean water, sanitation, hygiene, agriculture that is as focused on improving the nutritious value of food as it is on improving yields. It all works together. And in our development work all these elements must come together at once.

And here is where the United States government can, and should, lead. With Congressional action to authorize legislation that commits the U.S. to a global food and nutrition security strategy. With development work that places the success of smallholder farmers at the center. With policies that strengthen nutrition-smart agricultural development and that expand access to and spur consumption of healthy foods through food aid and social protection programs. With a focus on the crucial importance of the first 1,000 Days.

More than half of our global population is malnourished in some form. Some 800 million people are said to be chronically hungry, lacking enough food. But nearly three times as many people are lacking enough nutrients. They are micro-nutrient deficient – it is a hidden hunger which may not be evident to our eyes, the people may not look like they are starving, but it is just as debilitating and deadly. And then there are another 2 billion or so people who are overweight and obese.

And it all begins in the 1,000 days. It is where our quest for global food security – and where American leadership in agriculture development and improved nutrition around the world – has its greatest impact.

Thank you again for this opportunity to testify and I look forward to answering your questions.

Mr. SMITH. Mr. Thurow, thank you so much. I look forward to reading your book.

Mr. THUROW. Thank you.

Mr. SMITH. When will it be published?

Mr. THUROW. Next May, hopefully Mother's Day.

Mr. SMITH. Very good. That is fantastic.

Mr. THUROW. Good timing, we hope.

Mr. SMITH. Thank you, appreciate it. I will yield to Ms. Bass.

Ms. BASS. Thank you. Thank you very much, Mr. Chairman, as always, for holding this hearing on food security.

As defined by the U.N., food security is a situation that exists when people have access to sufficient amounts of safe and nutritious food for normal growth and development. In contrast, food insecurity may be caused by the unavailability of food, insufficient purchasing power, inappropriate food distribution, or inadequate use of food at the household level.

While the primary means of addressing acute food insecurity worldwide has been humanitarian intervention, this is costly and, by nature, reactive. As such, the development of a long term policy, which Mr. Thurow was just talking about, to enhance food security at the macro level which would also lead to economic growth, should be a goal of U.S. foreign assistance and collaboration with our global partners.

The U.S. is the world's largest food aid donor spending an average of \$2 billion on food aid programs from 2006 to 2013, and a majority of this spending was for emergency food needs. It has been supplemented since 2010 with annual outlays of \$900 million for nutrition and agricultural development programs under the Feed the Future initiative.

Additionally, the U.S. has sought to address emergency food assistance under two primary programs—Title II of the Food for Peace Act, and the Emergency Food Security Program under the Foreign Assistance Act of 1961. We had a hearing earlier today where we were talking about the Food for Peace program and making reforms to that program, and I wanted to get your opinions about that for any of the panelists.

I believe that when I was coming in I was listening to Dr. Woo talk about Feed the Future. I have had the opportunity to visit Tanzania, Ethiopia, and Kenya, and see for myself firsthand dramatic changes in watching farmers, as Mr. Hong described, go from being subsistence farmers to actually having excess, being able to sell their produce and developing their villages, buying trucks, farm tools, school uniforms and really transforming their communities.

So I wanted to get your opinions about what should be done with our current Food for Peace program, how it should be reformed. And Mr. Thurow, you mentioned in broad terms policy changes that should take place, but you might provide some specific examples as well.

Mr. THUROW. Sure. Carolyn, do you want to start?

Ms. WOO. Yes. Ranking Member Bass, thank you very much. We also heard about the hearing that you had, but of course we were on our way here and did not have the details of it.

But one point we want to make for Food for Peace is that it is very important to protect the development piece of it. Now all the things that we are talking about, all these interventions of how to help farmers increase their productivity, change their farming practices, build up their livelihoods, and change nutrition practices, those things happen through the development portion. And if we don't invest in that portion we will just have greater and greater emergencies and more people who would be needing help in an emergency situation. So I think the development aspect of it is absolutely critical for these type of long term, sustainable interventions. Thank you.

Ms. BASS. Mr. Hong.

Mr. HONG. Yes, I am reminded of an example. When countries invest in agricultural development you can have very different results. So in southern Ethiopia the government invested heavily in social protection measures and agriculture development for their farmers, and during the Horn of Africa food crisis the communities in Somalia faced severe famine and had to be supplemented by food aid from abroad. And this community in southern Ethiopia were fine because of the earlier investments. And so the long term nature of this is really important and cannot be stressed more and so that is why we want to focus on agriculture development.

Mr. THURLOW. Yes, I would agree with everything, I think, particularly on Food for Peace and the broader food aid arena that again with this irony that a lot of the beneficiaries of Food for Peace are farmers themselves and smallholder farmers.

So that agriculture development piece of this is really crucial so that these smallholder farmers have the ability to grow enough food to feed themselves, their neighbors, eventually their countries and the continent of Africa, and so that they then won't be in the position of needing this assistance; that they want to be self-sufficient themselves.

And that is what I have seen, and certainly what David would see with his farmers and with Catholic Relief and all the work that they do, is these farmers want to be independent. They want to be able to feed their families. The Food for Peace and the assistance is great in times of need and emergency, but it is that long term, sustainable agriculture development that is also a really key component of it.

Ms. BASS. Well, is there any more that you think that we should do with Feed the Future? How it should be expanded, what needs to be changed, reformed, anything?

Ms. WOO. I just want to say I think Feed the Future could increase its emphasis on smallholder farming. I think currently it deals with farmers with some assets, and again it is really for people at the bottom. And once you invest in them and you have these long term practices it increases resilience.

And the other thing is too that development assistance now allows us to address the potential impact of climate. If it is two degrees warmer, if water is being scarce, we are actually looking ahead to prevent consequences to these farmers.

Ms. BASS. Thank you. Anyone else?

Mr. THURLOW. I would say that also the emphasis on smallholder farmers, but that nutrition is the cornerstone and at the center of

not only all agriculture efforts but all development efforts. And I believe that USAID, in this all-encompassing program of development assistance, has an emphasis on nutrition at the center. And through that and particularly the emphasis on nutrition and nutritious value of the crops and nutrition education that then goes along with the programs that then becomes a great benefit for the women, the women farmers. Because what I have seen in my reporting, if they would also have experience, is that when the farmers fail and they are in this hunger season, the women and the women farmers feel that they are failing on two fronts. They are failing as farmers because they are not successful in growing enough to feed their families, and they are failing as mothers because they are having malnourished hungry children.

Ms. BASS. Thank you. Thank you very much, Mr. Chair.

Mr. SMITH. Thank you very much, Ms. Bass.

Let me just ask, Dr. Woo, first to you, assuming the reins of CRS as you did, and so effectively, you came with a background as being a dean of a school of business. I think your testimony and your leadership demonstrates that you believe that the more business-like the efforts are to meet the huge humanitarian needs and making it sustainable the better.

And I am wondering if you could just, you mentioned in Zambia, for example, that smallholder farmers, you have helped them with the balance between the harnessing agriculture for consumption and for income through engagement with markets, and you might want to expand upon that if you would.

Mr. Thurow, you make a very good point, as does Mr. Hong, about agriculture yields: In Africa, for most staple crops could be two to four times what they are today. That is huge. What a capacity to build out towards. And then you point out, Mr. Thurow that better quality seeds, small doses of fertilizer, training, and storage, and financing to pay for it all—it was remarkable when you talked about the Kenyan farmers who in a year increased their yield tenfold in their harvest. I mean that is spectacular with just some discipline.

And in answering the question or elaborating on that if you could, we have learned the hard way what too much fertilizer, too much pesticide does to people. It gets into the food chain. It gets into our bodies. It has devastating impacts on children especially. And I am wondering if those lessons learned by what we have experienced and other Western countries with overuse of fertilizer and pesticide, the best practices are being utilized in places like Africa and other developing countries.

Let me also, Dr. Woo, if you would speak to the issue of resilience. We got hit by Hurricane Sandy a couple of years ago—and I had meeting, I missed our hearing earlier, with the full committee, because I was chairing a meeting with FEMA on people who still have not been anywhere near made whole.

South Carolina is experiencing it—every one of our states go through it—California with its drought. Resilience. Maybe you want you spend a little time on how that could be built into the better crop that can withstand less rainfall, for example.

And then on the first 1,000 days of life, Mr. Thurow, I was at some of the scaling up meetings at the U.N. in 2010, and actually

joined seven first ladies of Africa where they spoke, really, with unbelievable enthusiasm about how, like you have pointed out and now your new book will, I am sure, further elaborate on it, how stunting can almost disappear.

And I was in Guatemala the day they signed an agreement with USAID and met with the Speaker the day they were actually signing on, because stunting is as you know a big problem in Guatemala as it is in many parts of Africa particularly in Nigeria.

But this idea of the first 1,000 days of life—I like to cross-reference work that I do. I wrote the Combating Autism Act, the 2000 law, the 2013 and the 2010 versions. NIH has found, and they have three major studies to prove it that if enough folic acid is provided in the first month, not the second, third or fourth—it is good, but it is not determinative—but in the first month, it reduces the risk of autism by 40 percent.

And we know tens of millions of kids and young people in Africa, according to the World Health Organization, are autistic or at least on the spectrum. And it seems to me that if that is included, as I am sure it is, all this great outcome for a modest micronutrient investment which could be made during those first 1,000 days. So if you might want to elaborate on that as well. But start with Dr. Woo.

Ms. WOO. Yes, Chairman, I think you asked me two question. One is the business approach, the second one is about resilience. Let me begin with resilience. The cornerstone of adjusting resilience is really two things. One is to reduce exposure to any type of natural or manmade disasters, the second one is how do you help people rebound?

So rebounding is very easy to understand. If you lost all your crops to a flood and you have no more seeds that is a problem. You cannot rebound, right. And so you start with the first one and that is if it is natural disaster, say for example, anticipating floods, anticipating drought, you could actually use seeds which are drought-resistant, flood-resistant. You can change irrigation practices and so on, but you have to look ahead.

And also there are also natural disasters such as storms. In those situations you could have pre-planning, you could have structures which could withstand various type of issues. So resilience is looking at those two things. Reducing exposure in different contexts, and secondly is increasing the ability to rebound. And diversifying crops, for example, is a way to rebound because then you are not all vulnerable to the same set of effects.

Let me go into the business model because it is also a way of achieving resilience. It has now become very much the common thread that we undertake our programming, particularly in agriculture. For us to have the effect which address several billion smallholder farmers, we have to use approach which is scalable and then sustainable, and we cannot do that on the basis of just government funding or philanthropy. We have to find ways where it creates a return, it creates a benefit so that the people who want those benefits will sustain this.

So for a smallholder farmer program it is really what we call Pathway to Prosperity. What does that pathway look like? It starts with people who are vulnerable. They grow things where there is

no market. They grow it poorly. For example, the quality is really poor, and also their growing practices are not good. The overuse of fertilizers, for example, their land can be very degraded. They may not have the tools and the knowledge to manage all of those things correctly.

So the first step is really diagnosing whether people are growing the right things with the right input in the right way on the right land. I mean, as simple as that. That is usually agriculture, but where we also come in is what we call the smart skills.

So in fact it is a chapter from American agriculture. The first one is forming co-ops. Each individual farm is very hard to deal with, particularly when you have one acre, so the formation of communities of co-ops, so that whole grouping skills. The second one is a knowledge in finance and budgeting, because now we expose them because they have this scale to market.

How do we enable them to achieve certification so that they could sell to various stores and so on? So also marketing skills and negotiating skills so that we are connecting to the formal market. And before they have all of these assets how do they generate their capital? And so One Acre Fund is one of those sources.

And I think you are reaching 1 million farmers, right?

Mr. HONG. We hope to.

Ms. WOO. You hope to. Well, we are talking 1 billion farmers, all right, and so where do they find the capital to take this journey? That is why savings group is very important so that they don't borrow from an outsider but they borrow within themselves. So when 20 people pool their resources they could, like this lady I just talked about, started with a baking business, then a chicken business, then a grocery store and then buying cattle.

So how we accumulate that capital and then eventually form people into co-ops that they have that type of group skills, the finance skills, the marketing skills, the negotiation, certification, in order eventually to connect with markets. So that is the whole business model associated with all of this transformation.

Mr. HONG. Yes, thank you, Chairman Smith. So you asked two questions. One was around the yield gaps and one was around resilience, so I will talk about resilience first.

One of the things that we have seen that is truly impressive with many smaller farmers is they are incredibly good at mitigating risk. And as they gain more income they diversify their assets right away. They buy a cow, they buy chickens, they are able to sell milk, eggs, things like that. So if there is a crop failure they have other things to sell on the market and other ways to make money.

One of the things that happened a few years ago is in Kenya there was a disease called maize lethal necrosis disease, MLND, and it was spreading. It is a virus and it would devastate entire fields. And so we offered a package, an alternative package of local staple crops like sorghum and millet and orange-fleshed sweet potatoes to try to help farmers mitigate against this type of risk.

We also offer things like drought-tolerant seed in our program as well as crop insurance for many of the farmers we work with. On yield gaps it is no secret that the soils in sub-Saharan Africa are incredibly depleted. They require nitrogen from sometimes inorganic fertilizer to develop anything. So for us, we teach farmers to

microdose to prevent leaching. So they use very small scoops of fertilizer, they target it, and through that they are able to increase their productivity.

And so I will just pass on to Roger.

Mr. THURLOW. Yes, and I will just follow up on that. That what you see in the field with smallholder farmers all over and say the ones at the One Acre Fund, this little scoop that they use it is basically the size of a thimble. They provide one that is nice and plastic, but if they don't have that or that one goes lost or something, they basically just have a Coca-Cola bottle cap or a beer cap which they somehow affix to a little stick and that is their dosage of fertilizer. One of those per maize seed that they put in the ground, a third for beans.

And so you see them bending over very carefully, close to the ground particularly on the beans where they have a cap of this, and it is just a third in this one and a third in the next one. Back-breaking work because they are bending over so far to do that.

And fertilizer, as it is for farmers in the United States, I mean, it is the most expensive component of their farming. They don't want to waste anything, so the microdosing. And then also other innovations with composting, some conservation agriculture and things that goes along, so there is other ideas that are then also starting to spread.

And then just one point on the resilience. The crop diversity, I think, is really important. So in terms of Feed the Future or of other agriculture development programs, the diversity of and kind of shifting away somewhat or including in the work is just not an overreliance on the staple crops. So the corn, the rice, the wheat, the beans, but also these orphan crops—the millet, the sorghum, sweet potatoes—all sorts of local greens and vegetables that we don't know anything about but they know really well because that has been growing around them for a long time.

And then the question on the 1,000 days. And the folic acid is crucial, starting at the time that you mentioned and kind of throughout the pregnancy. And what I found with a lot of the moms and the expecting moms, and particularly in Uganda, India, and Guatemala, is the reliability of the access to those kind of supplements, so the folic acid and the iron tablets that they make that they take. Whereas, here and Europe and the developed world that is part of the prenatal checkups and everything that you get and somebody is checking and making sure that they are being taken and things.

There, when they go to the clinic there may be a shortage of them, so they are told, well, you get them the next time you come back. Well, who knows when the next time is going to be when they come back because it is a distance that they have to go to, there is probably a little expense with getting there. They will take them, it may make them feel funny and so they will say I was feeling better before I was taking these pills. So the knowledge that then goes along with it. So it is this whole integrated aspect. But it is folic acid, it is the iron, it is the zinc, it is the vitamin A, all these things that are essential and that we take for granted but are really key.

And as you said in your opening comments, Chairman, there is no greater investment in this whole field than in the 1,000 days. And investment in innovation, what is going on with the delivery systems of these fortified, of these supplements and fortifications, and efforts like even one initiative that I am following is the moms in Uganda are doing this. They are growing orange-fleshed sweet potatoes and high-iron beans.

So the idea is that you let the crops do the work for you. There is the vitamin A or the beta-carotene that then becomes the vitamin A in the orange-fleshed sweet potatoes and in beans which already have an iron content. Through breeding you raise the iron content a little bit. And so they are just into foods that they are eating four or five, six times a week, they are getting those supplements and some of the important minerals that they need.

Mr. SMITH. Thank you. Ms. McCollum.

Ms. MCCOLLUM. Thank you, Mr. Chair. When you were talking about sometimes taking the supplements and not feeling well, I turned to Karen. I said, yes, iron can do a number on you when you are pregnant.

Mr. THUROW. That is what my wife—

Ms. MCCOLLUM. So if you don't understand that that is going to happen, if it hasn't been described that it will pass after a week or so, you might be sorely tempted to say this might have been a nice idea but it is not for me.

Mr. THUROW. Right.

Ms. MCCOLLUM. The first time I had an opportunity to really see CRS in full action was in Malawi and I was at a seed fair. And it was absolutely amazing. There was training, there was nutrition, there was the talk about doing more diversity and that and it was just absolutely wonderful. And I think for me, no pun intended, but was some of the seeds of what I think people have come up with Feed the Future because it was so inclusive and it was so holistic at the fair.

I just had an opportunity to be in Senegal recently where there was a Feed the Future project that was taking place with rice, but along with it there was work on granting not permanent title to land but 99 years for the title to the land so that people could feel that they could make the investment, and your neighbor next to you also was having a title.

So the whole idea of about community pulling together.

The training and the co-op is something which Land O'Lakes from Minnesota does a lot in it, so I think we know what all the pieces are and that is why I am so proud of the legislation here that we are all supporting about Feed the Future.

But I want to turn this a little bit, and I hadn't planned on asking this question, but the question of resilience, and the way that you folks answered it, and then the question of pesticides and using less of them. GMOs are very, very controversial. Very controversial in Africa. I do not support people not being able to harvest seeds and replant them.

I want to make it very, very clear that I think that there are GMOs that can serve a higher purpose. When I was in Bangladesh they were working on something with rice so it would absorb less

arsenic. In Bangladesh they have also worked on an eggplant that needs less pesticides.

Can you maybe address for us how we have a rational conversation, especially with what is facing Africa with wheat rust, into the future. We have a rational conversation about how we use science to improve the quality of lives and resiliency in crops and take the conversation that direction, knowing that some of us do support farmers being able to collect their seeds, not being into a whole cycle of buying one particular product line from seed to storage.

Could you maybe help us with that? Because as we talk about it here, our African colleagues in the parliaments are shaking their heads saying, well, if it is not good for the United States why would I want it here? How did we get so confused on what Norman Borlaug started working on? Who wants to take that on?

Mr. THUROW. Well, that is a good point that you mentioned Dr. Borlaug at the end, because he basically, all the work that he did in the seeds and the breeding that he did, and of course that was with the conventional breeding and he wasn't thinking about GMOs and things at that time. And none of them were patented. I mean he wasn't developing these to make money himself. It was an impression of these seeds as a public good, the research as a public good. So it is a very good point you make of that they can serve a higher purpose.

And so I think one of the things that has happened is there has been too many dogmatic positions and hardline thinking on this. They are either good or they are the best thing to come along, and kind of no middle ground in between. And I have seen some of the debates in Africa and they are precisely confused like that. And they have a great saying in Africa that when the elephants fight it is the grass that gets trampled.

And so the fight in the GMO realm between the United States and Europe and the other developed world countries that are debating this thing and the contretemps that are going on over that it then creates this state that for in Africa for them to have a reasoned debate on these things, what their own scientists say, what their farmers say, has become very difficult.

So yes, to kind of take the dogmatic positions out of there. And then, but I think this whole notion of this research and development for a public good that seeds, drought-resistant seeds, could be transformational for a lot of smallholder farmers. And not only drought-resistant seeds, but particularly with the climate change that the smallholder farmers that we are all talking about and that you know very well are on the front lines of climate change, they are going to bear the brunt of whatever changes are coming. They are the ones that are going to need to adapt to that. And so again this notion of this research and things is for the public good, I think is really good.

Mr. HONG. Yes. I mean, I think one of the things that we have found are technology beyond GMOs. When you just think about hybrid seed that is available on the market, for many farmers they don't have access to technology that has already been developed. So what we are trying to push for is to have research institutions like the CGIAR system that Borlaug worked for at CIMMYT and some of these other centers, make those varieties available to farmers.

I mean, in all the countries where we work GMOs are illegal in every place, and so it is not even an issue for us right now. What we are talking about are just simple hybrid seeds that do need to be repurchased every year, but farmers are still able to use informal seeds if they like. They can choose whatever they want. And I think for us it is really about farmer choice and farmer autonomy and having them have the array of choices that are available to many of the farmers in developed countries. So for us that is where we are coming from.

Mr. THUROW. I was just going to add that in terms of the hybrid seeds, there is so much development and advances that can be made when you talk about the yield gaps in Africa that can be made up just on the existing seeds, existing standard, non-controversial breeding that goes on that there is just a wide opportunity there.

Ms. WOO. So I just want to address this on four dimensions. The first one is the economic concerns associated with it, which is if you cannot access your own seeds and you have to depend on a very large producer that is a major issue. And we with the Catholic Church are concerned about that.

But one of the things we have to remember is that actually there is a lot of locally available and publicly available hybrids, as some of our colleagues said. So, and also it is a balance between how much is the farmer dependent on that. If the farmer has diversified crops and not as completely dependent on one provider of those seeds, and also if it is locally available at the right price and also publicly available materials.

But there is the first question which is the economic control that they lose or that they could gain in different ways. The second one is you mention irrational fears, and I am not able to address that but I just want to say that we have dealt with enough change in behavior. There are demonstration plots, for example. There are a lot of farmer agents which go out there to assist people in making changes, and you never just turn over your plot to completely to a new thing. And so there are rational vehicles to help people incrementally observe the effect, but there is always an irrational part of it, but where there are rational vehicles that can be undertaken.

But the third thing, I think there is a lot of politics in the discussion of GMOs and they exceed us actually, government to government, regulatory bodies, people who set standards and so on. But the fourth thing I want to say is that in some situations GMOs would be a major contribution, but in other situations in a lot of the work that we do we have not bumped up against that as a major hindrance or obstacle in making progress.

Mr. SMITH. Thank you. Mr. Meadows.

Mr. MEADOWS. Thank you, Mr. Chairman. And thank you to the group for your testimony, and I am going in there in just a little bit. Having been in Kenya working with some local farmers, and when we talk about farming I come from an agricultural district of North Carolina. When you tell them you are going to meet with farmers in Africa they don't comprehend that it is a 1-acre little piece of property that they may be growing maize on and the struggles that many of the farmers have.

And I guess so I would ask you this, is as we look at the aid—and I am proud to work with Chairman Smith and Ranking Member Bass on a number of issues. But getting beyond just humanitarian relief, which is what you are talking about, is actually making it sustainable and reliable, how do we fight back about the corruption, the potential for manipulation with whether it be on a tribal basis or on a government basis within those communities? Because that is a real problem as being there on the ground we can talk about a lot of those things, but it really are those issues that undermine the very nature of what we are trying to do.

Dr. Woo, do you have any thoughts on that?

Ms. WOO. Not the whole answer but I just want to say, so our partners, we work with about 550 Catholic organizations in the field, and so that is one way to work with partners where we understand their culture. We understand the workings. It is not as conducive to corruption issues, a third party payment.

Mr. MEADOWS. Right.

Ms. WOO. At the end it is within the Church structure, so that is how we generally deal with those issues. We are audited all the time by the U.S. Government, right, I mean, and so we have very strict policies in our financial administration, how those things to—

Mr. MEADOWS. And I am not suggesting—please don't take it that I am suggesting that you are involved in that. It is really more at a local level there that—

Ms. WOO. And so the key, really, is the local partners you work with are very important. Are they partners that have accountability to the people there? And there are different levels of accountability. And so if it is parishes and dioceses and so on, there is a structure there. So that is how we bypass some of the corruption issue.

Mr. MEADOWS. Okay, let me ask a different question then is because I know that there were some farmers that would be growing beans or maize and truly to provide for their family. Government programs, and I am speaking specifically here about Kenya, would come in and encourage them to grow other types of products which would provide a better yield, supposedly, financially. And yet the component was to sell back to the government of which they didn't get paid for that for 6 or 9 months, 12 months, and it breaks up this cycle.

How do we make sure that the monies that would go forward here and the training and education don't get hijacked, and I want to say that in a polite way, hijacked into other areas that really make farmers grow hungry? Any thoughts on that from any of the panel? Or am I wrong with that? Is that not happening or do you see that happening?

Ms. WOO. Oh, I think the compromise of that how incentives could create behaviors—this is not part of the program—is very much a part of many different development programs. And I think where we see it is community advocacy, community voice. How you build up the ability of that community to speak up for itself is very important, and how it has access to government ministries itself, and how again using a co-op structure for it to be able to identify these issues and have a vehicle to speak up. It happens not just

in agriculture. It happens in mining, for example, where local communities, their rights to land, the proper use of that land and so on is an issue. And there is really, advocacy is what we see as an important empowerment, a piece.

Mr. MEADOWS. Okay. Mr. Thurow?

Mr. THUROW. Yes, I was going to say that the advocacy, the community nature of this, so particularly among the women and women's empowerment. Because when they feel that they can speak up and that they are being heard, they become a whirlwind of force and they don't put up with a lot of the stuff then that governments or middlemen or others are doing because they can see through that.

And yes, they are all, there is, with just the farmers in the field and their families, this fed-up of they are hearing things that there should be services provided by the government. They are not there. If they are there is some kind of corruption or strings attached that you mention.

But I think the important thing is that the more self-sustaining these farmers become, that these smallholder farmers become, that they are able themselves to exercise the choices that David talks about. What kind of seed, I know what kind of seed I want. I know my soil conditions. I know my altitude conditions. I know what seeds are working here. That they can act on that themselves. And the more empowered they become through abandoning and conquering the hunger season by being able to effectuate their own independence as farmers, I think, makes a tremendous difference.

Mr. MEADOWS. Okay. I will yield back, Mr. Chairman.

Mr. SMITH. Okay. Mr. Clawson.

Ms. WOO. I will just add to say that that is why programming is not just directed at individual farmers or individual families, it has to address communities and how communities in our case is connected up whether it is through the Church structure or through government ministry, otherwise the individual voice is not enough to overcome that.

Mr. CLAWSON. Thank you for coming today. Real quick, an observation. You can think on it. Maybe we will talk another time, because we have got to go vote.

It seems to me that if you look at poverty-stricken countries either in Asia, southeast Asia, or Africa, the model or the choice for poor folks is usually one of the two. Subsistence farming—and folks like you help them innovate, do better, one acre, et cetera, all that is great of course—or go to the city. And you have got some bad choices in the city, usually, if you show up from the country with a sack of rice and that is it. Okay. And when we speak about how to get out of that trap we usually don't talk about a middle kind of model.

And so just one thing for you all to think about, when people come here and ask for our help and our funds, I always think of small villages that learn how to make brooms for factories in Cambodia or Thailand or some other micro-manufacturing that grows into bigger manufacturing so that you are not either micro-farming your way to eat or—God forbid—prostitution in the big city. That there is actually something where folks learn business skills that

could also help them for the modern world and make a little money.

So we don't have time to answer that, but if you will come back sometime. I think we miss the only real model out of this, and that is not farming your way out and that is not everybody go to the city, but let's try to make some things that people will buy. But I appreciate everything you all are doing because I think it is wonderful.

Ms. WOO. I just want to say in the Pathway to Prosperity we have actually a vehicles that allow people to do post-harvest production which is what you are talking about.

Mr. CLAWSON. With credit? Because if there is no credit those models never work. But you and I should talk another day, so I can go vote.

Ms. WOO. Yes, so it is like canning, juicing, and washing and so on.

Mr. SMITH. Thank you, Mr. Clawson. Let me just ask one final question. I have many more, but we do have a series of votes.

With regards to wastage, the big emphasis obviously is on building up capacity and increasing yield, but how do we mitigate wastage? I saw a UNEP suggestion or estimation of \$1 trillion worth of waste, one in four calories worldwide. In the U.S. 30 to 40 percent of our food supply is wasted. It is less so in Africa, but it is for other reasons, it is mostly because of storage. And we know that the MCC build feeder roads in Senegal, for example, to help the rice get to market, and I am just wondering how much, are we putting enough emphasis on that side of the coin?

Mr. HONG. Yes, I think that is a fundamental part of our program. When I say market facilitation, part of that is how do we minimize food loss and maximize farm profits. So one of the things that we offer farmers are these bags that are hermetically sealed storage bags so you can store your grain for months, maybe even years at a time. They are developed at Purdue and they are great technology. They only cost a few dollars. So things like that and training farmers on how to store at home so they can safely store those crops are fundamental to post-harvest storage.

Mr. THURLOW. Yes, I was going to say that storage and storage innovation, I think, in this whole realm of agriculture development in addition to really emphasizing nutrition, but the storage and eliminating waste is the next holy grail of what needs to happen particularly with innovation.

And David mentioned Purdue, but a lot of the universities and a lot of the research institutions here and elsewhere in the world and in the developing countries themselves are looking at precisely that question, because all the hard work that these farmers put into their crops and growing throughout the planting season and then have a third or half of their crops not even make it out of the field and onto the plate. Here in this country what is wasted is food that is prepared to be eaten and then not eaten or thrown away. There it doesn't even get to the point of being prepared for consumption.

Ms. WOO. So I just want to say there are four causes of food waste in Africa. Number one is people grow things that other peo-

ple do not want. They are not high quality. They are harvested too early. They were rotted or whatever it is. Number one.

Number two is the storage issue, that you want it but you want a storage to be careful so that it is not infested by pests or mold or whatever it is. The third thing is that there are no roads to take it to market so you have to sell to each other. The fourth is, even when you have roads, smallholder farmers are not sophisticated enough to engage a formal market. So it needs special assistance and building up that capacity. So I think that those are the four causes of food waste in Africa.

Mr. SMITH. Thank you. Thank you, all three, for your great testimony, for your leadership on these important issues. It does help this subcommittee, and by extension the full committee and the Congress to do a better job. We are pushing very hard to get this legislation passed. It has already passed the Foreign Affairs Committee, which there is one other committee that needs to consider it and I am sure they will. So again thank you for your leadership. It is extraordinary. The hearing is adjourned.

[Whereupon, at 1:53 p.m., the subcommittee was adjourned.]

APPENDIX

MATERIAL SUBMITTED FOR THE RECORD

SUBCOMMITTEE HEARING NOTICE
COMMITTEE ON FOREIGN AFFAIRS
U.S. HOUSE OF REPRESENTATIVES
WASHINGTON, DC 20515-6128

**Subcommittee on Africa, Global Health, Global Human Rights, and International
Organizations**
Christopher H. Smith (R-NJ), Chairman

October 7, 2015

TO: MEMBERS OF THE COMMITTEE ON FOREIGN AFFAIRS

You are respectfully requested to attend an OPEN hearing of the Committee on Foreign Affairs, to be held by the Subcommittee on Africa, Global Health, Global Human Rights, and International Organizations in Room 2255 of the Rayburn House Office Building (and available live on the Committee website at <http://www.ForeignAffairs.house.gov>):

DATE: Wednesday, October 7, 2015

TIME: 12:45 p.m.

SUBJECT: Food Security and Nutrition Programs in Africa

WITNESSES: Carolyn Woo, Ph.D.
President and Chief Executive Officer
Catholic Relief Services

Mr. David Hong
Director of Global Policy
One Acre Fund

Mr. Roger Thurow
Senior Fellow
Global Agriculture and Food
The Chicago Council on Global Affairs

By Direction of the Chairman

The Committee on Foreign Affairs seeks to make its facilities accessible to persons with disabilities. If you are in need of special accommodations, please call 202/225-5021 at least four business days in advance of the event, whenever practicable. Questions with regard to special accommodations in general (including availability of Committee materials in alternative formats and assistive listening devices) may be directed to the Committee.



COMMITTEE ON FOREIGN AFFAIRS

MINUTES OF SUBCOMMITTEE ON Africa, Global Health, Global Human Rights, and International Organizations HEARING

Day Wednesday Date October 7, 2015 Room 2255 Rayburn HOB

Starting Time 12:45 p.m. Ending Time 1:53 p.m.

Recesses 0 (to) (to)

Presiding Member(s)

Rep. Chris Smith

Check all of the following that apply:

Open Session

Electronically Recorded (taped)

Executive (closed) Session

Stenographic Record

Televised

TITLE OF HEARING:

Food Security and Nutrition Programs in Africa

SUBCOMMITTEE MEMBERS PRESENT:

Rep. Karen Bass, Rep. Mark Meadows, Rep. Curt Clawson

NON-SUBCOMMITTEE MEMBERS PRESENT: (Mark with an * if they are not members of full committee.)

*Rep. Betty McCollum**

HEARING WITNESSES: Same as meeting notice attached? Yes No

(If "no", please list below and include title, agency, department, or organization.)

STATEMENTS FOR THE RECORD: (List any statements submitted for the record.)

Statement of Kimberly Flowers, submitted by Rep. Chris Smith

TIME SCHEDULED TO RECONVENE _____

or

TIME ADJOURNED 1:53 p.m.

Gregory B. Sings
Subcommittee Staff Director

MATERIAL SUBMITTED FOR THE RECORD BY THE HONORABLE CHRISTOPHER H. SMITH,
A REPRESENTATIVE IN CONGRESS FROM THE STATE OF NEW JERSEY, AND CHAIRMAN,
SUBCOMMITTEE ON AFRICA, GLOBAL HEALTH, GLOBAL HUMAN RIGHTS, AND INTER-
NATIONAL ORGANIZATIONS

CSIS | CENTER FOR STRATEGIC &
INTERNATIONAL STUDIES

**Statement for the Record to the
House Foreign Affairs Subcommittee
on Africa, Global Health, Global Human Rights,
and International Organizations**

***"FOOD SECURITY AND NUTRITION
PROGRAMS IN AFRICA"***

A Statement for the Record by:

Kimberly Flowers

Director, Global Food Security Project
Center for Strategic and International Studies (CSIS)

October 7, 2015

2255 Rayburn House Office Building

WWW.CSIS.ORG

1016 RHODE ISLAND AVENUE NW
WASHINGTON, DC 20036

TEL: (202) 697-0200
FAX: (202) 775-3799

Research shows that investments in global food security and agricultural development can foster economic growth, reverse poverty trends, and, perhaps most importantly, mitigate conflict and build resilience in communities across the globe.

The U.S. Government has rightfully prioritized agricultural development to address hunger, poverty, and malnutrition, beginning with President George W. Bush's Initiative to End Hunger in Africa and evolving into President Barak Obama's Feed the Future initiative. Our demonstrated leadership has catalyzed pledges from G-8 countries and the private sector, including more than \$10 billion in private sector commitments through the New Alliance for Food Security and Nutrition. In the past five years alone, the U.S. Government has invested nearly \$5 billion through its global hunger and food security initiative, Feed the Future. Now is the time to sustain and build on that commitment, not to reverse course by losing sight of the invaluable nature of agricultural development.

Feed the Future was created to address the root causes of hunger and poverty primarily through multi-year projects that increase smallholder incomes, improve agricultural productivity, and boost nutrition security. Efforts also include scaling up innovative technologies, introducing climate-smart agricultural practices, and engaging the private sector to boost commercialization.

We are just now seeing concrete results from our increased investments, particularly in sub-Saharan Africa, which has 12 of the 19 Feed the Future focus countries. In FY2014 alone, Feed the Future trained nearly 2.5 million African farmers on how to use improved technologies and management practices; spurred over \$300 million in new sales; brought small-scale entrepreneurs increased income opportunities through nearly \$600 million in new agricultural and rural loans; and reached nearly 9 million children under 5 through nutrition programs.

The latest data also shows that U.S. Government efforts are contributing to substantial reductions in childhood stunting across the African continent. Ghana experienced a staggering 33 percent decline in stunting nationally between 2008 and 2014, and Kenya saw a more than 25 percent reduction in stunting from 2009 to 2014 in the areas where Feed the Future programs have been concentrated.

The CSIS Global Food Security Project provides long-term, strategic guidance to policymakers to ensure that U.S. foreign assistance programs are efficient, effective, and sustainable. One of the ways that the project analyzes the U.S. legacy in food security is through qualitative research on the ground in Feed the Future focus countries. I recently returned from our first research trip to Tanzania to look at the success and challenges of Feed the Future implementation.

Tanzania has received more Feed the Future funding than any other focus country in the world. The country saw a dramatic rise in funding for agriculture and nutrition, from \$2 million in 2008 to nearly \$70 million per year from 2012 to 2015.

After four years of increased investment to address food insecurity and undernutrition, impressive results have been achieved. A Feed the Future-funded policy analysis convinced the

government of Tanzania to lift an export ban on maize in 2011, which had cost Tanzanian farmers \$200 million each year since the ban was put into place. In 2014 alone, Feed the Future-supported farmers increased the value of their agricultural sales by more than \$19 million. One hundred thousand producers reported that they are using new technologies and management practices for the first time, significantly improving production and increasing incomes. Feed the Future leveraged nearly \$152 million in private investments in food and agriculture. During the same time, the U.S. Government reached 1.4 million women with nutrition services to improve maternal and child health, focusing on exclusive breastfeeding and complementary feeding, dietary diversity, and the uptake of zinc, iron, and other targeted micronutrient supplementation.

When I was in the Morogoro region visiting beneficiaries of a Feed the Future nutrition program, I teared up when an elderly woman introduced herself as a “1,000 days grandmother” and asked if I wanted to see her “1,000 days grandbaby.” As someone who worked directly on the launch of the 1,000 Days Partnership on the sidelines of the United Nations General Assembly back in 2010, it was a beautiful moment to see a sincere understanding of this critical window in a child’s life and witness behavior change at the community level. Feed the Future is responsible for that.

Of course, there is also room for improvement. There needs to be more strategic alignment and coordination between stakeholders, particularly around private sector investments and agricultural commercialization. Partners, at all levels, seem stuck in more of an administrative dialogue than a strategic one. Tanzania’s poor enabling environment and weak infrastructure are not conducive to attract the level of international investors required for a true agricultural transformation. On-the-ground progress under the New Alliance for Food Security and Nutrition is slow and frustrating. Many of these challenges are embedded in country leadership that has limited capacity and, although it means it may take more time, aligning Feed the Future strategies with country-led priorities is still the right direction to take.

There needs to be a deeper collaboration between U.S. agencies. While I was impressed with the linkages between USAID and the Peace Corps, there is no USDA presence on the ground and there is a missed opportunity with the upcoming MCC compact by not including a more direct link to food security. The whole-of-government concept is a commendable idea, but putting it into practice at the field level is much more complex than most understand.

Addressing food insecurity is more than just a moral obligation to help the nearly 800 million people who suffer from chronic hunger and undernutrition. Food insecurity is both a consequence and a cause of conflict, and there is a direct correlation between hungry people and political instability. In fact, dozens of riots and protests across the world in response to food price spikes in 2007-2008 were what sparked the U.S. Government to renew its commitment to agricultural-led development. Addressing the underlying causes of hunger and poverty is directly in line with our national security interests.

Support for long term-agricultural development programs should not be confused or combined with efforts to reform food aid assistance. Immediate humanitarian relief and agricultural development are two different facets of food security, requiring unique sets of resources, expertise, and funding mechanisms.

Just as the President's Emergency Plan for AIDS Relief, or PEPFAR, advanced to be a part of the larger U.S. development legacy, Feed the Future has the potential to be sustained beyond the current administration. With the 2016 elections around the corner, now is precisely the time to have a dialogue on how best to support a bipartisan, comprehensive agenda for global food security and agricultural development. We need a strong, coordinated food security strategy that continues to position the United States as a leader in the fight against hunger.

The U.S. Government's efforts to address hunger, poverty, and malnutrition needs heightened Congressional oversight and engagement. Food security should be cemented as a foreign policy priority for the United States, not tied to a particular President's legacy. While Feed the Future's interagency effort is far from structurally perfect, the initiative coordinates and leverages resources from 11 U.S. agencies in a way that traditional foreign assistance programs, to date, have not. We need a comprehensive strategy that ensures our assistance is efficient and accountable, along with stringent reporting requirements and increased programmatic transparency. This is a necessary next step for the U.S. Government to continue to be a leader in the global fight to eradicate poverty.

Agriculture is the backbone of developing economies across the globe. More than two-thirds of Africans depend directly on agriculture for their incomes. U.S. foreign assistance must continue to prioritize agricultural development to break the cycle of extreme hunger and poverty, and to support both domestic and international security interests around the world.