

S. HRG. 111-779

**PROMOTING GLOBAL FOOD SECURITY: NEXT
STEPS FOR CONGRESS AND THE ADMINISTRATION**

HEARING

BEFORE THE

**COMMITTEE ON FOREIGN RELATIONS
UNITED STATES SENATE**

ONE HUNDRED ELEVENTH CONGRESS

SECOND SESSION

APRIL 22, 2010

Printed for the use of the Committee on Foreign Relations



Available via the World Wide Web: <http://www.gpoaccess.gov/congress/index.html>

U.S. GOVERNMENT PRINTING OFFICE

63-233 PDF

WASHINGTON : 2011

For sale by the Superintendent of Documents, U.S. Government Printing Office
Internet: bookstore.gpo.gov Phone: toll free (866) 512-1800; DC area (202) 512-1800
Fax: (202) 512-2104 Mail: Stop IDCC, Washington, DC 20402-0001

COMMITTEE ON FOREIGN RELATIONS

JOHN F. KERRY, Massachusetts, *Chairman*

CHRISTOPHER J. DODD, Connecticut	RICHARD G. LUGAR, Indiana
RUSSELL D. FEINGOLD, Wisconsin	BOB CORKER, Tennessee
BARBARA BOXER, California	JOHNNY ISAKSON, Georgia
ROBERT MENENDEZ, New Jersey	JAMES E. RISCH, Idaho
BENJAMIN L. CARDIN, Maryland	JIM DEMINT, South Carolina
ROBERT P. CASEY, JR., Pennsylvania	JOHN BARRASSO, Wyoming
JIM WEBB, Virginia	ROGER F. WICKER, Mississippi
JEANNE SHAHEEN, New Hampshire	JAMES M. INHOFE, Oklahoma
EDWARD E. KAUFMAN, Delaware	
KIRSTEN E. GILLIBRAND, New York	

FRANK G. LOWENSTEIN *Staff Director*
KENNETH A. MYERS, JR., *Republican Staff Director*

(II)

CONTENTS

	Page
Bertini, Hon. Catherine, former executive director of the United Nations World Food Programme, cochair, Global Agricultural Development Initiative, the Chicago Council on Global Affairs, Cortland, NY	35
Prepared statement (joint statement with Secretary Glickman)	39
Glickman, Hon. Dan, former Secretary of Agriculture, cochair, Global Agricultural Development Initiative, the Chicago Council on Global Affairs, Washington, DC	37
Prepared statement (joint statement with Ms. Bertini)	39
Kerry, Hon. John F., U.S. Senator from Massachusetts	1
Lew, Hon. Jacob, Deputy Secretary of State for Management and Resources, Department of State, Washington, DC	6
Prepared statement	9
Lugar, Hon. Richard G., U.S. Senator from Indiana	3
Shah, Hon. Rajiv J., Administrator, U.S. Agency for International Development (USAID), Washington, DC	11
Prepared statement	14

ADDITIONAL MATERIAL SUBMITTED FOR THE RECORD

Prepared statement of Hon. Robert P. Casey, Jr., U.S. Senator from Pennsylvania	53
Responses of Rajiv Shah to questions submitted by Senator Christopher J. Dodd	55
Wall Street Journal article submitted by Senator Richard G. Lugar	56
Letter from the Association of Public and Land-grant Universities	57
Letter from International Relief and Development Organizations	58
“Farm Futures: Bringing Agriculture Back to U.S. Foreign Policy,” Catherine Bertini and Dan Glickman, <i>Foreign Affairs</i> , Volume 88 No. 3	59

PROMOTING GLOBAL FOOD SECURITY: NEXT STEPS FOR CONGRESS AND THE ADMINISTRATION

THURSDAY, APRIL 22, 2010

**U.S. SENATE,
COMMITTEE ON FOREIGN RELATIONS,
Washington, DC.**

The committee met, pursuant to notice, at 10:35 a.m., in room SD-419, Dirksen Senate Office Building, Hon. John F. Kerry (chairman of the committee) presiding.

Present: Senators Kerry, Menendez, Cardin, Casey, Shaheen, and Lugar.

OPENING STATEMENT OF HON. JOHN F. KERRY, U.S. SENATOR FROM MASSACHUSETTS

The CHAIRMAN. This hearing will come to order.

Thank you all. Welcome.

I want to thank Senator Lugar, who has been a passionate and committed advocate for a long time now, many decades really, for—on behalf of the world's hungry. And we all appreciate his leadership on this issue very, very much.

We're also pleased to welcome, today, two officials who are the leading edge of our efforts to enhance food security, Deputy Secretary Lew and USAID Administrator Shah, and an outstanding panel of private witnesses.

We have long viewed global hunger as one of our great, moral challenges. And all of us have been moved, at one point or another, by the stark images of hunger, of desperation, and particularly on the faces of the young children in many parts of the world. Food insecurity also poses a challenge to our broader development efforts, and yes, it is also a challenge to our national security. A lack of access to food leads to malnutrition, instability, and even violence. Food riots, 2 years ago, in Cairo, Port-au-Prince, and other capitals, showed how food insecurity can drive conflict. And because as much as 70 percent of the world's population is involved in agriculture activities, food security also has to be a cornerstone of our development strategy.

As we gather here, on what is also Earth Day, we need to recognize that this already urgent challenge is poised to explode in the years ahead as climate change creates new strains on food supplies everywhere. I just point out to people that there are currently tribes fighting each other and people being killed in the Sudan because of desertification and because one tribe moves into another

tribe's territory and tries to access the water, and there are struggles over those wells, and over that access to water. And it is a challenge to culture and to history and to tribal rights.

The Obama administration has taken significant steps forward, including pledging \$3.5 billion over the next 3 years, and establishing the Global Hunger and Food Security Initiative. Last year, this committee passed the Global Food Security Act, sponsored by Senators Lugar and Casey and myself, and it authorized a multiyear assistance to promote food security and rural development.

To address this challenge, we need to reconnect with our decades-long record of success in improving agricultural productivity and feeding the world. We need to use our technology and expertise to help connect farmers with new possibilities and new markets. And alongside our food aid, we need to focus on longer term efforts designed to empower people in countries to meet their own food needs. That means, quite simply, investing in capacity-building, mechanical/technical assistance, improving local governance. And because small investments in women farmers can help feed entire villages, we need to make sure that our food security efforts reach the women, who make up 40 percent of all agricultural workers and a majority of the farmers in Africa.

Taking on global food insecurity ultimately will significantly benefit our national security. We all understand that, in Afghanistan, our efforts to help farmers cultivate legitimate crops are crucial to rolling back the poppy cultivation that helps to fund the Taliban or other insurgent activities. And in Somalia, we've seen the World Food Programme forced to cut off aid to much of the country, due to threats to its workers and the demands of al-Shabaab. And we've also seen alarming reports of assistance being diverted into the hands of militants and corrupt contractors.

So, this hearing comes at a moment when our international affairs budget is, regrettably, once again being challenged. Even in a tough budget environment, short-changing programs like these, in our judgment, will deliver little budget relief, at enormous negative consequence to our global efforts. The Defense Department budget is about \$708 billion, the State Department budget is about 58. It totals about 1.4 percent of the total budget of the United States of America and one-sixteenth of our national security budget. And it seems to me that it is wrong, and we will fight against any efforts to reduce the President's request for a small increase, which is essential to the transformation of our foreign policy efforts, and, frankly, to the recalibration of the allocation of resources between defense and diplomacy in humanitarian efforts.

Dr. Shah, we are very pleased to welcome you back to the committee. I might remind people that 1 week after Dr. Shah took office as Administrator of USAID, the devastation of Haiti's earthquake presented his agency, and him, with one of the most severe humanitarian disasters our hemisphere has ever seen. And we're all grateful for his efforts, and for those of his team, and for the State Department.

In the days ahead, I plan to join with Senator Lugar and other colleagues in introducing a comprehensive assistance bill that will

address Haiti's food insecurity as part of our plan to rebuild in a better way.

We're also very, very pleased to have with us Deputy Secretary Jack Lew. I think all of us know that he is one of our real experts in the management and in analyzing the resource challenges that we face, in addressing global hunger and global poverty.

On our second panel, we'll hear from two very knowledgeable experts: Catherine Bertini, who served as executive director of the World Food Programme from 1992 to 2002, and in 2003 she was awarded the World Food Prize for her efforts to combat hunger. She recently cochaired a Chicago Council on Global Affairs report on renewing American leadership in the fight against global hunger and poverty. And also, Dan Glickman, the Secretary of Agriculture, an old friend of this committee and of the Congress, a former member himself. He was Secretary of Agriculture from 1995 to 2001, and the Congressman from the Kansas 4th Congressional District for 18 years, before that.

So, we have a lot of expertise to draw on today, and we look forward, very much, to this testimony.

Senator Lugar.

**OPENING STATEMENT OF HON. RICHARD G. LUGAR,
U.S. SENATOR FROM INDIANA**

Senator LUGAR. Senator Kerry, I join with you in welcoming our witnesses, and I thank you very much for scheduling this timely hearing.

We look forward to the testimony from Secretary Lew and Administrator Shah, who keenly understand the role that alleviating hunger and poverty plays for U.S. national security and global stability. I look forward to their presentations of the administration's Global Hunger and Food Security Initiative.

I also welcome Dan Glickman and Catherine Bertini, who will testify on the second panel. It was my privilege, when I was chairman of the Agriculture Committee, to welcome Secretary Glickman on a number of occasions, in previous life, and it's delightful to have him back in the Foreign Relations Committee today. Through their work with the Chicago Council on Global Affairs and other endeavors, they have elevated our understanding of the causes and consequences of hunger, and have made valuable recommendations to policymakers in the executive and legislative branches.

We live in a world where more than 1 billion people suffer from chronic food insecurity, a figure that has increased by nearly 100 million people since Senator Casey and I introduced our legislation just last year. An estimated 25,000 people die each day from malnutrition-related causes. Experts advise us that chronic hunger leads to decreased child survival, impaired cognitive and physical developments of children, and weaker immune-system functions, including resistance to HIV/AIDS.

These grave humanitarian consequences are sufficient cause for us to strengthen our approach to global food security. But, we have an even bigger problem. A dangerous confluence of factors threatens to severely limit food production in some regions as the world's population continues to expand. Between 1970 and 1990, global aggregate farm yield rose by an average of 2 percent each year. Since

1990, however, aggregate farm yield has risen by an annual average of just 1.1 percent. These trends threaten the fundamental welfare of a large share of the world's population. Here are the basic parameters of the problem:

First, the world's population is projected to increase to about 9.2 billion people by 2050. Growing affluence in China, India, and elsewhere, is increasing demand for resource-intensive meat and dairy products. As a consequence, it's estimated the world's farmers will have to double their output by 2050.

Second, food security is closely tied to volatile energy costs. Farming is an energy-intensive business. Energy price spikes in the future may hit with even greater ferocity than the spike in 2007–2008.

Third, water scarcity will worsen in response to population growth, urbanization, land-use pressures, and the effects of climate change. There could be 4 billion people who suffer from chronic water shortages by 2050.

Fourth, climate change is challenging farmers on every continent that deal with altered weather patterns, novel agricultural pests, and new water conditions.

Despite these alarming trends, investments in agriculture have tumbled since the 1980s. In 2007, rich countries devoted a mere 4 percent of their foreign assistance to agriculture. In Africa, which has severe food problems, donor aid to the farm sector plunged from \$4.1 billion in 1989 to just \$1.9 billion in 2006. Africa's per capita production of corn, its most important staple crop, has dropped by 14 percent since 1980.

Equally troubling are sharp cutbacks in research into new technologies, farming techniques, and seed varieties that could increase yields, cope with changing climate conditions, battle new pests and diseases, and make food more nutritious. Trade policy of both developed and developing countries has too often focused on protecting domestic farmers, rather than creating well-functioning global markets.

These trends have troubling implications for national security and global stability. Hungry people are desperate people, and desperation can sow the seeds of radicalism. Without action, the frequency and intensity of food riots may increase. We almost certainly will have to contend with mass migration and intensifying health issues stemming from malnutrition.

Our diplomatic efforts to maintain peace will be far more difficult wherever food shortages contribute to extremism and conflict. Our hopes for economic development in poor countries will continually be frustrated if populations are unable to feed themselves.

In short, overcoming hunger should be one of the starting points for U.S. foreign policy.

With these factors in mind, Senator Bob Casey and I introduced, with the support of the chairman, the Global Food Security Act of 2009. We believe the bill has served as a practical starting point for the administration's initiative and as a rallying point for those who agree that food security should play a much larger role in our national security strategy.

The bill would make long-range agricultural productivity and rural development a top development priority. The Lugar-Casey

bill, which was passed by the Foreign Relations Committee on May 13, 2009, is the product of extensive study involving numerous foreign-country visits and consultations with agriculture and development experts.

Over the course of the last year, the administration, under Secretary Clinton's leadership, has undertaken its own intensive study of food security. As we have compared notes with administration officials, it has become clear that the Secretary's Global Hunger and Food Security Initiative has reached many of the same conclusions as we reached on the most efficient ways to expand food production and to address hunger.

Both the Lugar-Casey bill and the Global Hunger and Food Security Initiative both focus on increasing agricultural productivity and incomes, promoting research and technology, being attentive to the special role of women farmers, and emphasizing the nutritional needs of children. Both initiatives would construct partnerships with host-country governments, indigenous organizations, institutions of higher learning, and the private sector.

I am particularly pleased that discussions with the State Department have progressed so that we will soon be able to unveil a bill that represents a consensus among the administration, House, and Senate sponsors, and nongovernmental partners.

As a farmer who has seen agriculture yields more than triple during my lifetime on my own family farm in Marion County, IN, I have faith that human ingenuity can avert a Malthusian disaster. But, we need to focus resources for innovation to take root, we have to apply all the agricultural tools at our disposal.

Some take positions that effectively deny African countries advanced biotechnologies that could dramatically improve farm yield. Such positions failed to grasp the enormity of a global hunger threat, or the difficulty of doubling global farm yields in the next four decades, despite the complications that could result from water shortages, climate change, and many other unpredictable factors.

We should partner with nations in research pursuits, based on their own country-led strategies: We should neither dictate nor withhold technological innovations from which they could benefit.

I believe the food-security challenge is an opportunity for the United States. We are the indisputable leader in agricultural technology. A more focused effort on our part to join with other nations to increase yields, create economic opportunities for the rural poor, and broaden agricultural knowledge, could strengthen relationships around the world and open up a new era in U.S. diplomacy.

I thank the chairman, again, for holding this important hearing, and look forward to the discussion with our witnesses.

The CHAIRMAN. Thank you, Senator Lugar, very much.

Mr. Secretary, would you lead off, please, and then the Administrator? And we look forward to hearing from you.

You can summarize your testimonies. The full testimony will be placed in the record as if read in full. Thank you.

STATEMENT OF HON. JACOB LEW, DEPUTY SECRETARY OF STATE FOR MANAGEMENT AND RESOURCES, DEPARTMENT OF STATE, WASHINGTON, DC

Mr. LEW. Thank you very much, Mr. Chairman, Senator Lugar, members of the committee. It's really a pleasure to be here to have the opportunity to speak with you about the Feed for the Future Program, the administration's Global Hunger and Food Security Initiative.

We applaud the committee, and members of this committee and the leadership, for the work you've done on food-security legislation. It's really laid a foundation, and it began well before our efforts on food security were undertaken. We look forward to continuing to work with you as we go forward and implement the program effectively.

Mr. Chairman, thank you for your comments on the budget in your opening remarks. It's obviously a subject of deep importance to us. And it's central to our ability to accomplish all the goals that we're talking about here today, to accomplish our goals in Afghanistan, Pakistan, and Iraq. And it's really a central national security priority for the administration. So, thank you for your leadership on that, as well.

President Obama and Secretary Clinton have committed the United States to a new vision for development, one that embraces development as a strategic, economic, and moral imperative as central to solving global problems and advancing American national security as diplomacy and defense. Our goal is to balance, align, and leverage these three D's as we pursue our national objectives in accordance with our fundamental values. This is a core characteristic of smart power and a guiding principle of our work around the world.

The strategy for Feed the Future exemplifies our new vision for development, more broadly. It starts with the recognition that food security is not just about food. It's also about security—national security, economic security, environmental security, and human security.

In too many places, agriculture is so deteriorated that people cannot grow enough food to feed their families, to earn—or to earn an income from selling their crops. As a result, cities and villages throughout the developing world—it's often the case that food is scarce and that prices are volatile, and the prices are beyond what people can afford to pay.

This broken system fosters hunger and, too often, poverty, which leads to violence and political instability. Since 2007, when global food prices skyrocketed, there have been food riots in more than 60 countries. Food insecurity also contributes to tensions between nations, and restrictions on exports during the food price crisis limited the flow of food and sent prices even higher in neighboring countries.

Through the Feed the Future Program, we seek to make strategic, long-term investments that address the root causes of hunger and poverty by increasing agricultural productivity, boosting rural incomes, and improving household nutrition. As we have seen in country after country throughout history, agriculture can be a powerful engine for broad economic growth. The Green Revolution that

began in the 1960s led to soaring productivity rates in India and other countries in Asia and Latin America. By improving agriculture and nutrition, the United States has the chance to help a significant number of people around the world, and, in doing so, to protect our own security, and lay the foundation for a more peaceful and prosperous world.

Earlier this year, Secretary Clinton set forth a vision that reflects our strong commitment to development. Feed the Future reflects that vision.

First, we're concentrating our work in specific sectors where we, the United States, have a comparative advantage. In the past, we've invested in many programs across many fields, often spreading ourselves too thin and reducing our impact. Through Feed the Future, we will target our investments and develop technical excellence in agriculture and nutrition to help catalyze broad and sustainable change in countries.

Second, this initiative integrates our diplomatic and development efforts. Feed the Future will require the best of our development efforts in each country, and will also require strong, diplomatic support to coordinate with other donors and work with host countries.

With that in mind, Secretary Clinton has recently named two very senior Foreign Service officers to lead this initiative. Ambassador Patricia Haslach will serve as Deputy Coordinator for Diplomacy, and Ambassador William Garvelink will serve as Deputy Coordinator for Development.

Third, as we work to connect development and diplomacy to get better results, we've adopted an expansive whole-of-government approach. It's led by a joint team at the State Department and USAID, and it's my honor to be testifying here today with my colleague and friend, Administrator Shah.

In addition to State and USAID, we're bringing in the expertise from the Department of Agriculture, the Office of the U.S. Trade Representative, the Treasury Department, the Millennium Challenge Corporation, the Department of Health and Human Services, and a number of other agencies. It's a challenge to organize across government, and we have to demonstrate our ability to manage this program as one, with many areas of expertise.

Fourth, our commitment to partnership extends not only to the countries where we work, but to other countries and organizations working there, as well. Treasury Secretary Tim Geithner is announcing, today, our investment in the World Bank's Global Agriculture and Food Security Program. Our initial contribution of \$475 million includes \$67 million which was appropriated in FY 2010. And it's already helped encourage \$400 million in investments from Spain, Canada, the Republic of Korea, and from the Bill and Melinda Gates Foundation. The diversity of these donors reflects a growing engagement in foreign assistance and the vital role that other stakeholders—including foundations, NGOs, and the private sector—will play in this initiative as we move forward.

Fifth, and perhaps most critically, Feed the Future applies a model of development based on partnership, not patronage. Our new approach is to work in partnership with developing countries that take the lead in designing and implementing evidence-based

strategies with clear goals that address their unique needs. One of the best lessons we have learned from past aid programs is that clear country ownership and commitment are absolutely critical to long-term success.

Women and girls are at the heart of this initiative. A majority of the developing world's farmers are women, and it will simply not be possible to make significant progress in enhancing food security and improving nutrition and fighting poverty without creating more economic opportunities for women.

There's a proverb that speaks to a central lesson in development: "Give a man a fish and he'll eat for a day, but teach a man to fish and he'll eat for a lifetime." Secretary Clinton has offered an addition to that proverb: "If you teach a woman to fish, she'll feed her whole village."

Through Feed the Future, we will also increase our investment in innovation. Given the potentially enormous return on investment, we will invest in approaches that confront significant threats to food production, such as crop and livestock disease, the decline in soil fertility, and the challenges of climate change.

Sixth, our approach will focus on results and on progress that can be sustained over time. We are working with countries to develop approaches that strengthen the entire agricultural chain, from the lab to the farm to the market, and, finally, to the table. At each link in the agricultural chain, we will work with our partners to strengthen in-country capacity, create sustainable practices, and put in place accountability mechanisms that measure the impact of our investment. We will scale up efforts that yield strong results, and learn from those that indicate that improvement is necessary. And we will share evidence of our progress, or under-performance, should that be the case, with the public.

For too long, developed nations, including the United States, have believed that food aid alone was the right response to hunger. This approach fell short of creating sustainable solutions, and inadvertently created a sense of dependency that has held countries back.

I want to be clear that Feed the Future will not supplant emergency food aid. As we all saw in Haiti so recently, emergency food assistance is a vital tool for saving lives, and it will continue to be so. But Feed the Future offers a different approach. It takes the next critical step: investing in our partners' futures by spurring long-term economic progress.

Today, the United States has a unique opportunity. Our country, and many others around the world, have made significant commitments to this issue. We have learned important lessons from the past which we are applying today. And the need for our leadership is greater than ever.

Mr. Chairman, Ranking Member Lugar, and Senate members of the committee, again, I want to thank you for your tireless work to combat global hunger, and your leadership on this issue of food security. We look forward to the hearing today, and to continuing to work together on this critical issue.

Thank you.

[The prepared statement of Mr. Lew follows:]

PREPARED STATEMENT OF HON. JACOB LEW, DEPUTY SECRETARY OF STATE FOR
MANAGEMENT AND RESOURCES, DEPARTMENT OF STATE, WASHINGTON, DC

Chairman Kerry, Ranking Member Lugar and members of the committee, thank you for this opportunity to speak with you about Feed the Future, the administration's global hunger and food security initiative. We applaud the committee's leadership on food security legislation which underscores the critical importance of this initiative to addressing global hunger. Many of you were working on this issue long before this initiative began. And we look forward to continuing to work with you and your staff on this vital cause.

Let me begin by setting the context for our work. President Obama and Secretary Clinton have committed the United States to a new vision for development—one that embraces development as a strategic, economic, and moral imperative, as central to solving global problems and advancing American national security as diplomacy and defense. We seek to balance, align, and leverage these three D's as we pursue our national objectives in accordance with our fundamental values. This is a core characteristic of smart power and a guiding principle of our work around the world.

The strategy for Feed the Future exemplifies our new vision for development. It starts with the recognition that food security is not just about food, but it is all about security—national security, economic security, environmental security, and human security.

In too many places, agriculture has deteriorated to such a degree that people cannot grow enough to feed their families or earn an income from selling their crops. Or, if they can grow the food, they have no way of transporting it to local or regional markets. As a result, in cities and villages throughout the developing world, food is at times scarce and prices can be volatile and often beyond what people can afford.

This broken system fosters hunger and poverty. That, in turn, can lead to violence and political instability. Since 2007, when global food prices skyrocketed, there have been riots over food in more than 60 countries. People's inability to grow or purchase food has shaken fragile governments. In Haiti, the Government fell after violent demonstrations over the rise of food and fuel prices. Food insecurity has also contributed to tensions between nations; for example, restrictions on food exports during the crisis limited the flow of food and sent prices even higher in neighboring countries. And, hunger has a cascading effect for families and communities; it makes people more vulnerable to illness and disease and makes it harder for children to learn and adults to work—which further deepens poverty.

At the G8 Conference in L'Aquila, Italy, last year, President Obama spoke of the billion people worldwide who endure hunger, and said, "Wealthier nations have a moral obligation as well as a national security interest in providing assistance." We want to deliver that assistance in a manner that does not only temporarily alleviate hunger for some, but attacks the problems of hunger, poverty, and malnutrition at their roots, leading to sustainable and systemic progress on a broad scale.

This is what we are striving to accomplish with Feed the Future. We seek to make strategic, long-term investments that will increase agricultural productivity, boost rural incomes, and improve household nutrition. As we have seen in country after country throughout history, agriculture can be a powerful engine for broader economic growth—particularly in developing countries, where agriculture can account for more than one-third of total economic output and more than half of the total workforce. The Green Revolution that began in the 1960s led to soaring productivity rates in India and other countries in Asia and Latin America. In East and Southern Africa, the application of scientific innovations to maize production led to yield increases of 1–5 percent per year, comparable to growth rates in the United States. By improving agriculture and nutrition, the United States has the chance to help a significant percentage of the world's people achieve the stability, prosperity, and opportunity to which we all aspire. And, in so doing, we can protect our own security, promote our own interests, and lay the foundation for a more peaceful and prosperous future.

Earlier this year, Secretary Clinton set forth a vision that reflects our strong commitment to development. Feed the Future is an exemplar of that vision.

First, we are concentrating our work in specific sectors where we have a comparative advantage. In the past, we've invested in many programs across many fields, often spreading ourselves thin and reducing our impact. Through Feed the Future, we will target our investments and develop technical excellence in agriculture and nutrition, to help catalyze broad, sustainable change in countries.

The President's FY 2011 budget request includes \$1.6 billion for Feed the Future, reflecting the President's pledge to invest a minimum of \$3.5 billion in agricultural

development and food security over 3 years. We are committed to leveraging this investment through a number of coordinated funding mechanisms that reinforce and leverage one another. In addition, the budget request includes \$200 million to fund nutrition programs in the Global Health Initiative that will be coordinated with and integral to Feed the Future.

Second, this initiative aligns our diplomatic and development efforts. Feed the Future will require the best of our development efforts in each country, and will also require strong diplomatic support to coordinate with other donors and work with host governments. Our diplomats will reinforce our development experts, and vice versa. With that in mind, the Secretary recently named two senior Foreign Service officers to lead this initiative: Ambassador Patricia Haslach, who will serve as Deputy Coordinator for Diplomacy, and Ambassador William Garvelink, who will serve as Deputy Coordinator for Development.

Third, as we work to connect development and diplomacy to get better results, we have adopted an expansive whole-of-government approach. Led by a joint team at the State Department and USAID, Feed the Future brings together the Department of Agriculture's expertise on agricultural research, the U.S. Trade Representative's efforts on agricultural trade, the Treasury Department's close partnership with multilateral institutions, and the contributions of many other agencies, including the Millennium Challenge Corporation and the Department of Health and Human Services.

Fourth, the administration's commitment to partnership extends not only to the countries where we work, but to other countries and organizations working there as well. That is why the budget includes \$408 million for multilateral institutions—funds that will harness additional support and expand our impact. These funds, along with the \$67 million appropriated in FY 2010, will enable the USG to contribute \$475 million as a founding investor of a new multidonor trust fund managed by the World Bank. Treasury Secretary Tim Geithner is announcing this investment in the World Bank's Global Agriculture and Food Security Program today. The administration's initial pledge of \$67 million helped encourage \$400 million in investments from Spain, Canada, the Republic of Korea, and the Bill and Melinda Gates Foundation. The diversity of these donors reflects a growing engagement in foreign assistance and the vital role that other stakeholders—including foundations, NGOs, and the private sector—will play in this initiative as we move forward.

Since last year, when President Obama announced the \$3.5 billion American commitment to combat poverty and hunger, 193 countries have endorsed a common set of principles in a collective effort to combat the reality of global hunger and food insecurity. Our global commitment must be commensurate with the problem we are facing. The U.S. contribution through Feed the Future is a portion of the global commitment—including more than \$18.5 billion from other donors—which has helped move hunger to the front of the global development agenda.

Fifth, and perhaps most critically, Feed the Future applies a model of development based on partnership, not patronage.

Our new approach is to work in partnership with developing countries that take the lead in designing and implementing evidence-based strategies with clear goals that address their unique needs. One of the best lessons we have learned from past aid programs is that clear country ownership and strong country commitment are absolutely critical to long-term success.

We are working with countries to develop approaches that strengthen the entire agricultural chain—from the lab, where researchers develop higher performing seeds; to the farm, where we can help improve productivity through better water management, fertilizer use, and farmer training; to the market, where we're helping to share product information and build the infrastructure that will let people process, store, and transport their crops more effectively; and finally to the table where families break their daily bread. Our objective is to give people the opportunity to buy and grow nutritious food and receive a balanced diet.

And we will ensure that women and girls are at the heart of this initiative. A majority of the developing world's farmers are women and it will simply not be possible to make significant progress in enhancing food security, improving nutrition, and fighting poverty without creating more economic opportunities for women.

There's a proverb that speaks to a central lesson of development: "Give a man a fish and he'll eat for a day, but teach a man to fish and he'll eat for a lifetime." Secretary Clinton has offered an addition to that proverb: if you teach a woman to fish, she'll feed her whole village. We recognize the power of women to lead change in their communities and countries. So we are working to ensure that women have equal access to seeds, education and financial services, and that they play an equal role in leadership and decisionmaking in all of our programs.

Through Feed the Future, we will also increase our investment in innovation. Simple technologies like cell phones can help farmers learn the latest local market prices, conduct mobile banking, know in advance when a drought or a flood is on its way, and learn about new seeds that can help corn grow in drought conditions. Given the potentially enormous return on investment, Feed the Future will invest in approaches that confront significant threats to food production, such as crop and livestock diseases, the decline in soil fertility, and the challenges of climate change.

Sixth, our approach will focus on results, and on progress that can be sustained over time.

At each link in the agricultural chain we will work with our partners to strengthen in-country capacity, create sustainable practices, and put into place accountability mechanisms that measure the impact of our investment. We will keep in mind that the right thing to do in one country may not be the right thing in another. We will scale up the efforts that yield strong results and learn from those that indicate that improvement is necessary. And we will share the proof of our progress—or underperformance should that be the case—with the public.

Secretary Clinton has insisted that we measure our results, not just by tallying the dollars we spend or the number of programs we run, but by the lasting changes that these dollars and programs help achieve in people's lives.

For too long, developed nations, including the United States, have believed that food aid alone was the right response to hunger. We tried to alleviate hunger for all the right reasons, but our approach fell short of creating sustainable solutions—and inadvertently created a sense of dependency that has held countries back.

I want to be clear that Feed the Future will not supplant emergency food aid. As we recently saw in Haiti, emergency food assistance is a vital tool for saving lives, and will continue to be. But with Feed the Future, we take the next critical step: investing in our partners' futures by spurring long-term economic progress.

Today, the United States has a unique opportunity. Several critical factors have converged. Our country and many others around the world have made significant commitments to this issue. We have learned important lessons from the past, which we are applying today. And the need for our leadership is greater than ever. One billion people around the world go to bed hungry every night. We can help change the conditions that cause hunger, and replace them with conditions that lead to greater opportunity, health, stability, and prosperity for people worldwide. It's an opportunity too valuable to let pass us by.

Chairman Kerry, Ranking Member Lugar and members of the committee, thank you again for your tireless work to combat global hunger and food insecurity. We look forward to continuing our joint efforts on this critical issue.

The CHAIRMAN. Thanks a lot, Secretary Lew.
Administrator Shah.

STATEMENT OF HON. RAJIV J. SHAH, ADMINISTRATOR, U.S. AGENCY FOR INTERNATIONAL DEVELOPMENT (USAID), WASHINGTON, DC

Dr. SHAH. Good morning, Chairman Kerry, Ranking Member Lugar, and members of the committee.

Mr. Chairman, I also want to thank you for your comment about Haiti, and for your personal guidance and support in the early days of that crisis.

And, Senator Lugar, to your continued guidance, especially on this issue, we agree fully that the administration's conclusions are quite consistent with the great work that you and your staff, and others, including Senator Casey, have done over a number of years.

Today is Earth Day, so it is worth underscoring the tremendous challenge of eliminating hunger in the context of a growing population, where erratic climate events, such as droughts and floods, are clearly on the rise, and where water resources are more scarce, and will become more scarce, than ever before.

The World Bank just noted, this week, that an additional 65 million people will be pushed into extreme poverty by the end of this year, continuing a tremendous and negative trend that has now

taken place for 2 years and directly affects the number of hungry people worldwide, but especially, and most acutely, in Africa.

Global food supplies, as you noted, need to increase by an estimated 50 percent by 2030, and double by 2050, to meet increased demands that are caused by a number of factors, including demand for meat and poultry products, and more grain-intensive foods, in certain parts of the world.

And most notably, the most vulnerable populations, the rural poor in Africa, Asia, and parts of Latin America, are going to be on the front line of bearing the brunt of this negative trend. As one example, Asian rice yields are projected to decrease by 25 percent without new technologies and new production systems that will reverse the trend of lowered agricultural productivity.

Going forward, our initiative will focus on comprehensive agricultural development and food-security efforts. We will focus on those markets, and in those countries, where agriculture is more than two-thirds of total employment, more than one-third of total GDP, and often in places where families easily spend more than 70 percent of total income securing food for themselves. These are the most vulnerable parts of the world, and the parts where, according to the 2008 World Development Report, our investments can have the most outcome, in terms of improving people's resiliency against hunger and food shortages.

With your support, the United States is bringing real leadership to this task. The President and the Secretary have launched this initiative, and, in doing so, have laid out specific principles, many of which referenced by Secretary Lew, that will guide our implementation. These principles—working in partnership, focusing on science and technology, leveraging our areas of comparative advantage, engaging more directly with women, who are more than 70 percent of all producers in the places where we work—will, together, allow us to achieve a transformation of the agricultural and food-system sectors in the countries in which we will focus, as opposed to our long history of simply implementing projects of modest scale and modest scope.

We are moving aggressively to implement the strategy we have outlined. First, we are pursuing development of country-led plans. As of July 2009, only one country in Africa—Rwanda—had a comprehensive national agricultural plan consistent with the principles that they, themselves, had outlined. Today, there are 17; and by the end of June, there will be 25. These will be the bases of the programs and plans that will guide our investment, going forward. They coordinate the effort of multiple stakeholders behind a single process, and they serve as a point of coordination for donors around the world to come together and, in an organized way, support a real agricultural transformation in these places.

Second, in science, technology, and innovation, we will pursue a two-part strategy that will focus both on a focused, sustainable intensification in those crop categories that are most important—maize, wheat, rice, cassava, sorghum, et cetera. We—for too long, there's been a real neglect in agricultural research, and international agricultural research, and too many differentiated goals that have downplayed the role of core productivity improvements. So, we'll refocus our efforts in that area.

But, we will also focus on sustainable production systems that are very specific and very tied to the places in which we work—highland maize in east Africa, stress-tolerant rice in Asia—those places where we know we can find breakthroughs that will save tens of millions of people from a future of suffering related to hunger and extreme poverty.

What that strategy will also allow us to do is better connect global technological innovations, such as drought-tolerant genetics that exist in the United States, with specific national research institutes and the local extension systems that can make sure those technologies actually reach the small-holder farmers, who, at the end of the day, are a big part of the solution.

Third, we will work across markets and a market-led effort to create real, vibrant, resilient food systems. For example, we're using our development credit authority, a tool that USAID has to motivate credit and lending in specific sectors, to dramatically expand access to credit in the countries in which we will focus, and to do that in partnership with local microfinance organizations and local banks, so that small farmers and small agribusinesses can gain access to credit in order to improve their efforts.

Fourth, as Secretary Lew mentioned, we will prioritize women. Seventy percent of African farmers are women, and yet, less than 10 percent of them have access to credit, and only 5 percent of agricultural extension workers on the continent are women. So, we will be very specific about disaggregating income. We will target outcomes, such as gender disaggregated income, and study women's incomes. We will specifically target women through our extension programs. And we will look to make sure our partners are hiring and training women in all aspects of our work.

And fifth, we will focus on results and accountability. We know that agricultural GDP growth is three to six times more likely to reduce poverty than generalized growth. And we need to measure outcomes by studying household-level income effects, child under-nutrition, and agricultural productivity rates, basic measures that we collect everywhere in the world, but too often, in our agricultural development programs, have neglected to do the research to collect that information.

I also want to assure you of my personal commitment, and USAID's strong commitment, to working in a whole-of-government effort to make sure that we succeed. We will work with our partners at the State Department, in close coordination, to make sure that we get other countries to invest in these plans and invest in these efforts, alongside our efforts. A true transformation will require a global effort. That was the spirit of the President's launching this at last years' G8, and continues to be the spirit in which we implement.

We work closely with USDA in specific areas, where USDA has technical resources, in livestock genetics and other areas that can make a big difference as we take this forward.

And we've reorganized ourselves at USAID to more effectively help lead this effort. We have a Food Security Task Team, led, as Secretary Lew mentioned, by Ambassador Bill Garvelink. And we are reallocating funding authority so we can make the kinds of central investments in collecting, monitoring information, in doing

household surveys, and in funding global research efforts in a way that's efficient and strategic.

We will need to continue to consult with you, and we will continue to ask for your support so that we can expand the base of agricultural experts we have that can help partner with countries to implement this program.

In closing, I just wanted to note that, as has been mentioned, this initiative has really been structured around areas we think of as our comparative advantage: our strong agricultural productivity, our rich legacy in science and technology, and our ability to transform agricultural systems around the world. It was, in fact, a USAID Administrator, William Gaud, who, a number of years ago, coined the term, Green Revolution, based on the very impressive research and diplomatic efforts of Dr. Norman Borlaug. And President Obama and Secretary Clinton have mobilized a huge global effort to make sure that the whole world stands with us as we try to do this.

So, I'm very optimistic about our potential, and I'm eager to take questions and continue to benefit from your guidance.

Thank you.

[The prepared statement of Dr. Shah follows:]

PREPARED STATEMENT OF DR. RAJIV SHAH, ADMINISTRATOR, U.S. AGENCY FOR INTERNATIONAL DEVELOPMENT, WASHINGTON, DC

Good morning Chairman Kerry, Ranking Member Lugar, and members of the committee. Thank you for the opportunity to update you on the administration's food security initiative, Feed the Future and our efforts to address global food security. As your leadership has highlighted, food security is one of the highest priorities for U.S. development assistance. Food security ranks as a high development priority not simply because the United States is determined to meet our moral obligation as a great nation. The food security of developing nations is integral to our national security—hunger and poverty perpetuate instability, and food shortages are acutely destabilizing. Developing bodies and developing economies both need steady sustenance to thrive. Food security facilitates stable lives and sturdy, resilient nations. Our comprehensive approach seeks to respond to the staggering scope of the food security problem, a problem that has expanded in size in the past few years, affecting the lives of more than 1.1 billion people who suffer daily from want of this most basic of human need.

There is growing momentum and a higher level of cooperation to address this problem on a global level. As a result of the President's efforts at L'Aquila, our international partners have made a commitment of \$22 billion to combat food insecurity over the next 3 years. Global leaders agreed to a set of common principles for effective coordination, aligned behind country-led strategies, meaningful investment planning that would be supported by developing countries themselves, as well as through development assistance and other support. Those principles were reaffirmed by 120 countries in Rome last November. And just last week, Canada hosted the donor community for a review of the commitments made last summer, highlighting transparency and accountability to the L'Aquila agenda, as well as the pledges made to accomplish it.

Members of Congress, especially members of this committee, are determined to address this problem. Increased budgets for agriculture development and continued support for global food security legislation have brought renewed attention to how agricultural-led growth can reduce poverty and hunger. The Global Food Security Act, sponsored by Senators Lugar and Casey, captures the strong commitment of the United States to align resources behind approaches that work. I would like to personally thank you both, as well as Representatives McCollum and McGovern, for your leadership on this critical initiative. We look forward to working with you on this important legislation as it moves forward.

With a broad base of support, coordination within the international community, and leadership from both ends of Pennsylvania Avenue, we can capitalize on this momentum to leverage a global effort of significant proportions to fight hunger and undernutrition.

It was a predecessor of mine, USAID Administrator William Gaud, who coined the term Green Revolution. That this term is known around the world is a testament to what U.S. leadership can mean. The administration's FY 2011 budget request reflects a coordinated, governmentwide strategy that expands support for both bilateral and multilateral assistance programs. We recognize that this is a tough budgetary time and that coming from such a low budget base for agriculture as recently as 2008, the FY 2011 budget looks ambitious. But this is one of our highest priorities and will require resources that address the scale of a problem affecting a billion people very directly and millions more globally. To illustrate just how far things had fallen, in 1982, USAID had an agricultural budget of \$1.2 billion. That is equivalent to \$2.9 billion today. In 1979, agricultural programs made up 18 percent of all development assistance, and productivity gains in the developing world were running 3 percent per year and generating enormous benefits. By 2008, agriculture's share had dropped to just 3.5 percent of development assistance, while productivity growth of developing country farmers lagged at less than 1 percent growth per year, not enough to meet growing needs and far below what is needed to drive poverty reduction. The result of underinvestment in agriculture is clear.

The global agricultural system is more interconnected today than it was during the first Green Revolution. What happened in global food markets in 2007–08 showed just how vulnerable the poor are in the face of price shocks. But this complexity also opens new pathways to success. For example, the rapid rise and transformation of small-scale dairy—in countries as diverse as Kenya and India— involves not only the introduction of modern animal husbandry practices but also the development of modern marketing chains. New enterprises aggregate the production of numerous small-scale producers—men and women with just a few cows each. These aggregators get the milk on the main roads for delivery to urban processors and ultimately to consumers. The impact is enormous, ranging from the increase in incomes to those small-scale producers, to the jobs created by the transportation and processing industry, through to the improved nutrition of millions of poor families who benefit from the addition of dairy in their diets.

With the support of Congress, we are poised to bring American technical leadership to the complex task of promoting food security around the globe. By establishing new relationships with existing partners, such as the World Bank Global Agriculture and Food Security Program, as well as finding new local partners, we will fulfill our commitments to embrace a new, goal-oriented, evidence-based approach to achieving food security. We will support country-led plans and priorities in countries committed to policies that are conducive to rapid development progress.

We are reshaping the agency to tackle food security more effectively by capitalizing on America's comparative advantages. There are aspects of American approaches to development that I would like to expand upon as these will be crucial to our long-term success. First, we are advancing a strategic and robust research agenda that promotes innovation in science and technology. Second, we are supporting entrepreneurial, market-based approaches to agricultural growth; and third, we are making targeted investments to meet the unique needs of women who make up the majority of the farming labor in our countries of focus.

The United States is an admired innovator and early adapter in the area of agricultural technology. Thus, among global aid agencies, USAID is uniquely qualified to provide agricultural development assistance. From the spread of conservation practices in Zambia and South Asia to adapting biotechnology for small-scale farmers, the United States can leverage the expertise of U.S. universities and industry in partnership with established and emerging agriculture leaders in developing countries.

Earlier this month, over 900 agricultural researchers from around the world gathered in Montpellier, France to chart a new way forward that would strengthen partnerships between global and developing country research systems and hold those systems more accountable for impact. Dr. Gebisa Ejeta, the recent World Food Prize Winner and special advisor to USAID on agricultural research, spoke on my behalf about the renewed U.S. commitment to research and strengthening the capacity of developing countries to deliver new technologies and more sustainable management practices to their farmers. The message from Montpellier was clear—the world needs to produce more food, but often with less land and water, and greater climatic uncertainty—the only feasible option is to use science and information to sustainably increase agricultural productivity. This “sustainable intensification” requires purpose-driven research and solid partnerships, both key areas for U.S. leadership.

We will provide over 8 percent of our budget in FY 2011 for global research—which represents a major increase. But with this expansion come challenges. The CGIAR System (Consultative Group on International Agricultural Research) is de-

fining new research programs with specific outcomes targeting hunger and poverty—transformative technologies such as drought tolerant maize, wheat that resists heat, drought, and stem rust, and rice that needs less water—that will strengthen food security for millions of smallholder families across Africa, Asia, and Latin America. Our university partners are similarly being challenged to design research programs that generate outcomes and build capacity that target clear and compelling priorities.

These programs will create multiplier effects by training scientists and strengthening the faculty and curricula of agricultural universities that will produce the next generation of agribusiness leaders, policymakers, and innovators. And we are challenged to strengthen both public and private extension systems to deliver the benefits of research to small-scale producers.

These are the type of investments that drove agricultural growth during the 1970s and 1980s. Dr. Ejeta himself embodies the impact of those investments. His education—from high school in Ethiopia to graduate research at Purdue University—was funded, in part, by USAID. USAID's investment in Dr. Ejeta paid off a thousandfold when he invented improved sorghum varieties that benefited the lives of countless Africans. These partnerships are also a key component of the Global Food Security legislation that Senators Lugar and Casey are sponsoring and we welcome these important investments.

I also feel very passionately about U.S. leadership in support of market-based solutions to agricultural growth. Increases in both public and private sector investments in developing countries are essential to accelerating economic growth and poverty reduction.

In Feed the Future, we place significant emphasis on linking small farmers to markets—from connecting them to growing urban markets to promoting regional trade as a means to increase the availability of food and increase incomes. Through value chain approaches, we not only help strengthen and professionalize producers, but we help support growth in transport, processing, and marketing industries that will broaden growth of the whole sector. We can help small-scale producers segue from subsistence agriculture to growing their own farming businesses.

For example, in West Africa, USAID projects already underway like the Sustainable Tree Crop program are transforming the lives of small-scale farmers. Private partners, including Mars, Hershey, and Kraft are helping secure a vital supply chain for cocoa while improving the livelihoods of more than 1.5 million West African farmers in the industry. The program includes a farmer field school that is helping producers in a farmer-to-farmer approach with key lessons, disease control and knowledge extension. This is an ideal partnership between West African farmers and U.S. companies.

We have several such opportunities to unlock the private sector investments in agriculture. Our programs can and will go a long way, but the real heavy lifting will come from our developing country partners as they must commit to market solutions for agricultural development. Rwanda set a very good precedent for other countries on this front. At the Rwanda portfolio review of the Country Investment Plan for Agriculture in February, a multitude of stakeholders including donors, civil society, and private sector representatives came around the table to agree upon investment priorities and then coordinate and align investment actions. We continue to encourage such multistakeholder reviews which emphasize the engagement with the private sector so that our collective public investments can unleash sustained, commercial opportunities over the long term. We have private sector advisors from the United States reviewing each country investment plan and we are working with our developing country partners to ensure there is a robust representation from local and regional commercial players at each of the country-level reviews.

A third aspect of our approach relates to gender. The American ideal of gender equality permeates through our approaches to economic development as we intentionally target our work to meet the unique needs of women. Seventy percent of African farmers are female. In order to make the most of our food security funds, we must focus on these women who are the leaders of agriculture in Africa. Last year, I met one such woman—a successful Uganda farmer named Justine Manyomga. She farms about 2 acres of land—a plot that is considered large in her community. It took us several hours to reach her on a horribly slow dirt road, and Justine does not own a vehicle. She doesn't benefit from extension services, have access to credit, or the ability to ascertain market information in an efficient manner. Like most African farmers, she uses no mineral fertilizer.

And should production fall, there are no safety nets to help her or her family. I met with Justine's neighbors who described how recent viral diseases in cassava and bacterial wilt disease in banana had devastated their food production, forcing them to pull children out of school, and making them go hungry.

Justine does well by African small-farm standards, and she is hopeful that she will continue to be able to send her kids to school. She dreams that they will receive university educations so they can lead productive lives. She is participating in a program through a local NGO, to improve yields of her sweet potato crop. But, new crop varieties alone—especially without access to better markets—will not lead to the type of agricultural transformation required to reduce poverty and hunger at scale.

When you take a step back and look at the entire chain—from caring for the soil, to planting the seeds, to raising, harvesting, and selling the crops—you can see all the threats to this woman's livelihood, all the vulnerable links along the chain where the whole enterprise could collapse.

So there is an enormous gap in access to markets as well as in the adoption of new technology, inequalities in laws, rules, and norms, especially for women producers. These inequities limit women's access to land and other key productive resources. Moreover, the percentage of agricultural leaders who are women, including researchers and extension agents, is usually less than 15 percent. We are looking for additional ways to foster the roles of women in science, and also in extension, where new approaches, often in partnership with the private sector are also underway.

Women are especially important to advancing the nutrition agenda. When the well-being of women is improved, there is consistent and compelling evidence that agricultural productivity advances, poverty is reduced, and child nutrition improves. Therefore, through the Global Health Initiative FY 2011 budget request, we are committing \$200 million toward achieving significant reductions in undernutrition that has crippling effects on a person's ability to learn and produce.

The United States has technical leadership in these areas and, with your support, a strong resource base to apply against solutions we know are effective. We are putting in place a stellar team to carrying out our food security strategy. Ambassador William Garvelink will oversee the effort at USAID as Deputy Food Security Coordinator for Development, to lead the programming of USAID resources and coordinate with other U.S. Government agencies to be consistent with our overall strategy. Ambassador Patricia Haslach will lead our diplomatic efforts as Deputy Coordinator for Diplomacy. Ambassador Haslach will lead the effort to imbed food security as a political priority in our embassies. We have hired more than a dozen new Foreign Service officers with expertise in agriculture over the last year with an additional 30 in the process of coming on board.

All of our focus country missions have already submitted plans for FY 2010 that are now being analyzed and will be the basis for our improved, scaled-up investments in agriculture. The plans outline a multiagency effort to build the capacity of key actors in government, the private sector, and civil society—those who will lead and implement country-owned plans in food security. Interagency technical collaboration and review is allowing alignment of multiple U.S. Government agencies around the development efforts of USAID. These plans will provide the foundation for development of detailed and targeted multiyear strategies in the next few months that we will share publicly to engage partners in our effort and to communicate the results for which we will be accountable.

Action is also happening at the country level. The coordinated effort of multiple stakeholders behind a country-led planning process is a central principle of the global effort. In July 2009, only one country in Africa, Rwanda, had a comprehensive national agriculture plan. Today there are 17; and by the end of June there will be 25. Several of these will be translated into technically reviewed and costed investment plans around which donors can organize and coordinate our funding. The progress is not only in Africa but also in Latin America and Asia, effectively reversing the trend of disinvestment from the 1980s until 2008.

As early as next month, I will join a meeting hosted by the Prime Minister of Bangladesh with other major development agencies, multilateral organizations, local and international nongovernmental organizations and the private sector to chart the next steps toward a coordinated investment plan for food security that spans agricultural development, nutrition, and safety nets for the poorest. This will be a major step forward for Bangladesh as they address food security with their own commitments.

The global momentum is great. The advances in technology and research have been powerful, and the sharing of information in real-time is opening new avenues and efficiencies that can make our investments more strategic than ever before. I believe we are at a unique moment in history to make a tremendous change in agricultural productivity, hunger and undernutrition.

This is not to say it will be easy. Our partners in the developing world must do their part to develop robust, prioritized investment plans that have the buy-in from

a broad base of constituents. These plans must represent hard choices and a commitment to doing work differently that even we in this country find difficult to do. Our partners must invest more in agriculture despite the difficult economic climate facing us all. They must make policy reforms to change the governance of seeds and fertilizer and to improve the investment climate in agribusiness. We need them to join us in the effort to integrate and grow the roles of women, even while other groups may have more pervasive political influence. These are all tough decisions that require real leadership. I am confident that our resources and flexibility will serve as both carrot and stick in terms of urging them onward.

Not all the burden lies with developing countries. We have many operational and strategic challenges as we take on an issue of this size and magnitude. I fundamentally believe that the programs of USAID will only be effective if aligned with other donors and, importantly, with the broader work of the U.S. Government in each of our countries. Decisionmaking structures must be built that work across agencies. We must develop streamlined processes for reporting on our collective progress. We must recreate an atmosphere for sharing information and solving problems together. This cooperation and coordination is difficult, but absolutely necessary. I am committed to working more effectively across agencies and I am hopeful that with your support we can break down silos so that we can have a united approach to tackling food insecurity and undernutrition.

In addition to the challenges of implementing a whole-of-government approach, we also have many strategic choices to make about how best to structure our funding to maximize impact. We will need your support and guidance as we do so. First, we need your commitment to having an outcomes- and learning-driven foreign aid agenda. It is imperative for us to allocate future funding based on the progress we are seeing in countries. Such an outcomes-oriented approach requires us to be nimble in our funding—advancing funds where progress is great and being bold in re-programming funding where countries commitment to change is not there. To be successful in this approach, I recognize the importance of having metrics in place with which we can regularly gauge our success. As you know, I have made monitoring and evaluation an important part of rebuilding USAID's strategic planning and learning. Food security will be on the forefront of those efforts.

In addition to supporting an outcomes-driven approach to aid, Congress can be instrumental in supporting the human resource requirements to take on an initiative of this size. While the program funds have grown our operating expenses have not been proportional. Congress' continued support for the Development Leadership Initiative is critical to rebuilding USAID's in-house expertise and I thank you for all you have done to strengthen and invest in that program.

Today we celebrate Earth Day, and we know that agriculture and the environment are interrelated. We face enormous challenges in addressing climate change. But in the Sahel of Africa, for example, we can see success that marries productivity growth with improved natural resource management. Through wide-scale community-based agroforestry programs, large parts of Burkina Faso and Niger are greener today than they were 30 years ago. Low technology solutions like regenerating on-farm trees from root systems are creating a new agricultural landscape.

With over 1 billion people suffering from hunger, food security must be one of our top development priorities. It is the most basic of human needs and it is the basis for human development. Children who are undernourished will not reach their full educational potential, economies cannot grow if workers lack sufficient food to fuel their labor, unsustainable agriculture driven by poverty undermines the environment, and widespread hunger leads to political instability as we saw in the food riots of 2008. I look forward to working with members of this committee, and others in Congress, as well as other U.S. Government agencies, our partners in nongovernmental organizations, universities, industry, foundations, multilateral organizations, other donors, and developing countries themselves, to seize this opportunity and redouble progress in cutting poverty and hunger.

Senator LUGAR [presiding]. Thank you very much, both of you.

Now, let me commence with questions, and we'll have a round with 7 minutes each, and another round, as required.

I ask unanimous consent that I place in the record a piece from this morning's Wall Street Journal by Secretary Geithner and Bill Gates, entitled "A New Initiative to Feed the World." And I quote from their report that, "Whereas nearly 18 percent of official development assistance worldwide went to agriculture in just 1979, this

is now down to 5 percent in 2008." And I would add that the aid to Africa during this period of time has been insignificant.

[The article to which Senator Lugar referred can be found on page 56.]

Now, one of the results of all of this is that the amount of crops per acre an average African farmer produces is currently half the amount of an Indian farmer, one-fourth that of a Chinese farmer, and only one-fifth that of an American farmer. So, as we're discussing the need for increased production agriculture, this is of the essence. Doubling the world's food production by 2050, in the face of these current percentages, is arithmetically impossible without the scientific expertise that you've mentioned.

The role of genetically modified technology in agricultural development is a matter of contention for some. Europe's rejection of GM has pressured African governments to follow suit, for fear they will lose existing or future export markets. Others argue that the safety of GM has not been proved despite nearly two decades of use. This opposition contributes to hunger in Africa, in the short run, and virtually ensures that much of the continent will lack the tools to adapt to changing climate conditions, in the long run. We just may not be able to double food production by 2050, and do so using the existing agricultural footprint, if we do not invest in technological advancements. Accordingly, the Lugar-Casey bill includes a provision supporting research on the applicability of biotechnology in varying ecological conditions.

My questions are designed to try to frame this issue as precisely as we can. Now, I ask each of you, to what extent does the United States support research on a full range of technologies through the Collaborative Research Support Program, contributions to the Consultative Group for International Agricultural Research, or other programs, and in consulting with countries and regional organizations such as the Comprehensive Africa Agricultural Development Program, on their agricultural strategies? What is the state of existing research capacities in countries suffering from chronic hunger? To what extent have they incorporated building research capacity into their own development strategies? And do these strategies encompass biotechnology?

Dr. SHAH. Thank you, Senator. I'd start just by noting, as you point out, that the USAID and the Federal Government has had a longstanding commitment to the Consultative Group for International Agricultural Research. We target around \$30 million of investment directly to the CG system, plus probably another \$20 or \$25 million that comes from our missions to support CG research activities, and really linking those activities to local agricultural systems, which is very important.

We've also, since 1975, actively invested in the Land-Grant University System, as you know, sir, through Title 12. We do about \$30 million through these Collaborative Research Programs, known as CRSPs.

The two things, with respect to this research system that we're looking to really evolve through this strategy, are as follows:

First, we've really identified a set of core crops and core production constraints that need to become the priorities, going forward. These include rice, maize, cassava, et cetera, and they include the

types of constraints that, frankly, have, shockingly, been neglected over the last decade, abiotic stress related to water—you know, water scarcity, and heat tolerance, in particular. So, we've identified those traits and those crops, and we're looking to reorient the investments we make at the CG and in the CRSP program to, in a more focused way, support that.

As we do that, we're really working with partners around the world, including U.K., in particular, that are making big, new commitments to the CG system, so that we can, in an organized way, really return that system to its roots, which were originally focused on productivity, crop breeding, making advanced genetics available to countries around the world, in a focused and structured and efficient manner. And I'm confident we can do that, but it will take working with a range of partners.

The second thing I would add is that we are looking to partner with USDA and the unique research capabilities they bring. In the intramural research space, USDA has programs in livestock genetics and livestock disease that will be important partners for us. And in the extramural space, we're looking to work on those dual-use types of technological advances, where their—where they can advance goals and we can help make those breakthroughs in drought tolerance, for example, accessible to lower-income countries.

So, we believe research is an important component.

And then, the final thing I'd say—I'm sorry—is that, on the transgenic technologies, we've both specifically supported transgenic technologies, like eggplant in India and a range of other technologies in Africa, including drought-tolerant maize in Uganda, and we're supporting efforts for those countries to develop the types of regulatory systems that they need to have in order to make those technologies accessible to their public. And then let farmers decide what they want, and what they don't want, as opposed to having those choices dictated from abroad.

Thank you.

Mr. LEW. Senator——

Senator LUGAR. Do you have a further comment, sir?

Mr. LEW [continuing]. That was an answer that leaves little to be added to it. But, let me just add one—just highlight the last point that Dr. Shah was making.

The regulatory environment that—is very important. I mean, we've seen, in a lot of areas, that if you don't fill the space with science and knowledge and facts, that fear can fill the space just as easily. We know, from phytosanitary standards, that we're much better with a world where everyone understands, in a uniform way, and where there are harmonized regulations in a region. This is a newer area, but it's just as important. And, in terms of dealing with the problems of the future, we can't afford to let it drift for decades. It has to be addressed as the technologies are being developed.

Senator LUGAR. Now, let me ask the following, as a second broad question to both of you. The committee's study on global hunger found that as funding and investments in global agriculture decreased over the last two or more decades, so did investment in agricultural, education, and national research systems. The Lugar-

Casey bill seeks to enhance current USAID programs relating to building capacity at institutions of higher education, extension services, and research facilities. It proposes to do this through partnerships between United States universities and foreign universities. Now, what is the extent to which USAID manages programs to build capacity at foreign universities and national research services? And how do such efforts fit in the Feeding the Future Initiative?

While it's been argued elsewhere that USAID has lost much of its specialized expertise, I'm interested in understanding the history of USAID's involvement in higher education programs and extension programs. Can you provide us with background on this question?

And second, support for country-led processes has become popular in development policy circles. The thinking is that we must get away from paternalistic relationships and shift responsibility to countries, enabling them to create their own paths. However, I am concerned the rhetoric surrounding country-led efforts may lead us to support, even tacitly, plans that may not be in U.S. interests, or approaches we do not believe work. An approach that is dominated by a country-led framework can take attention away from a partnering relationship, where donors and recipients recognize the mutual benefit of each other's development.

This leads me to the following question: To what extent can we ensure that country-led plans have encompassed the participation of civil society, rather than being elite-driven? Furthermore, to what extent is the United States or other international donors working with food-insecure countries to guide and inform their strategies?

Dr. SHAH. Thank you, Senator. I'll address all three points.

First, on partnerships, USAID currently has more than 50 university partnerships that are specific to agriculture, including with the broad range of the Land Grant Universities that, in fact, work in very close partnership with agricultural research and extension organizations in Africa, Asia, and Latin America.

I had the chance to personally visit the University of Nebraska sorghum program, for example, and you can see the value of the rich, technical exchange of both germplasm and of individuals, so that people can learn modern breeding techniques and then take them back to those research systems.

As we move this initiative forward, I think, we're looking to expand those efforts dramatically, but in a more focused way and with university partners in other parts of the world.

You asked about our history. In the 1970s and 1980s, we were far more effective at building really strong agricultural research-based universities in Faisalabad, in Pakistan, and throughout India, for example. And those really became transformative institutions for the agricultural systems in those countries. Recently, the investment in that area has dropped off dramatically, so we'll rebuild in that space.

On expertise, as you noted, there are more than 130 agricultural experts at USAID. And we're looking to hire significantly in this area, and also looking to partner with other Federal agencies, notably USDA, that might have specific expertise in phytosanitary

standards and other trade issues, including USTR. So, we're looking to expand that cohort; but there are 130, and we're looking to organize that in a way that's most effective in implementing this initiative.

And, third, on country-led plans, we've helped support the Comprehensive African Agricultural Development plan process through NEPAD. And through that effort, they mobilize technical resources from all three of the Rome-based food and hunger agencies, as well as the International Food Policy Research Initiative, and really provide quite a lot of technical support to countries that are developing these plans.

You are absolutely right, sir, to point out that often, in the past, country plans have not prioritized women or private sector efforts or research. And we're working, in a dialogue with countries, to help countries be most effective at developing the kind of long-term plans that can demonstrate that investment in those three often critically missing areas is often the key to long-term success.

But, we do feel it's important to let this process run its course, and to be responsive to countries, as opposed to simply dictating priorities. And so, we're doing that in a balanced way with our colleagues on the ground.

Mr. LEW. If I could just add, on the question of country-led programs, because I think this is an issue that's broader than just the food security issue. It's really part of an approach to development in healthcare and other areas, as well. And, I think that there's some tension in the notion of country-led and the directed focus that we're talking about in these programs. It won't be a good fit for every country. We are—what we think is important to do in the world won't have an application everywhere. And we need to find the places where there is a good fit, because they are U.S. programs that have—are driven by U.S. interests.

I think there are a lot of countries where what we're talking about will be a perfect fit and there will be those kinds of country-led plans. But, we have to engage in partnership. And the notion that we let go and say, you know, "You come up with a program, whether it's in food, security, or health, and, you know, we'll just write the checks", that's not the notion of what "country-led" means. It's a partnership, it's engagement; it's respectful engagement. That's different from saying, "You must do this." I mean, we respect that they may not want to participate in the program. And I think that that's the way you engage in a respectful way.

Senator LUGAR. I thank you both.

Senator Cardin.

Senator CARDIN. Thank you, Senator Lugar. I appreciate that.

And, let me thank both of you for your service.

This is a subject we've been talking about for a long time: food security. And your answers are, I think, the type of approach that all of us agree that we need to participate in. So, it's encouraging to hear this.

But, I sort of want to try to connect the dots a little bit, and that is, it's hard to imagine how you can deal with hunger if you don't deal with poverty. And it's hard to see how you deal with poverty if you don't deal with the problems of corruption in the developing

worlds, and a lack of institutions to protect the development of any semblance of progressive improvement on wealth.

And a few weeks ago, we had President Clinton before us, and Mr. Gates, and they talked about their foundations, and how they use their foundations, but they, because they're private, can be a little bit more directive on how they deal with the issues of transparency and corruption.

We have more diplomatic issues that we have to deal with. And I don't mean to say that they're equivalent.

But, it seems to me that if we're going to be successful in dealing with food security, internationally, globally, that we're going to have to deal with accountability and expectations in the institutions that we deal with, in order to build the permanent structures for security in that country.

And I just am interested as to how you are trying to deal with the interrelationship between our programs to help with hunger, and dealing with developing the types of credible, transparent institutions in the country, that can protect the people and allow wealth accumulation.

Mr. LEW. Senator Cardin, that is central, not just to food security, but to our development programs and our foreign assistance programs, generally. And it's an extremely important issue for us to both be focused on and devote our attention to in the work that we do.

I think, if you look at the structure of the Food Security Initiative, it's really designed to make the determination that we have a partner that we can work with, and to ask threshold questions about what their governance situation is, what kinds of programs will be implemented. The issue of women often gets to, Is the system one that allows for land ownership, that allows for the rule of law to work?

Senator CARDIN. And I want you to continue to answer, but I was going to follow up on the gender issue. You both raised that in your opening statements, we've talked about that. I'm very happy to see that. Secretary Clinton has been an outspoken champion for gender issues. It seems to me that's one area we can be pretty specific.

Mr. LEW. Yes.

Senator CARDIN. So, now, suppose the country does not provide for that. Do we, then, back away? What do we do?

Mr. LEW. These become very difficult diplomatic issues. I think you have to focus, at the front end, on being very clear about what expectations are. You know, we have seen, in other programs—the MCC, for example—where, if you set clear expectations, you can come in behind and say, "You haven't met the standard." I think it's very difficult, if you haven't been clear about what's expected, to be that—to stick to your principles and implement a program the way you said you would.

We've made clear, in the Food Security Initiative, that becoming part of it doesn't mean that you're guaranteed to stay part of it. If you don't perform according to what the—what your commitments in the program were, you know, there's the risk that you won't stay in the program.

We're going to have to stick to our principles and sometimes say to countries, that we have good relationships with, or need to have

good relationships with, or have strategic interests in, that this isn't working. And that's always a challenge. It's—

Senator CARDIN. Will you be able to provide us specific accountability standards on gender issues in a country—

Mr. LEW. Yes.

Senator CARDIN [continuing]. As—

Mr. LEW. Yes.

Senator CARDIN [continuing]. That we're participating in, so that we have at least transparency between the executive and legislative branches as what the expectations of that program and that specific country is, to improve the plight of women, particularly in agriculture, which is so well documented how they've been discriminated against?

Dr. SHAH. Thank you, Senator. I—absolutely. And we will not only be able to provide them to you, but we will also be able to provide them to our implementing partners, to countries, and to all that are involved in this initiative.

I think Secretary Lew's point is exactly the right point, that we have to be clear about the expectations, and develop those expectations with our partners.

To give you an example—really, three quick examples—one is, we can set standards around what we expect, in terms of building an extension workforce that is responsive to the customers that workforce is trying to serve. We can set targets, we can have expanded efforts to recruit, retain, and train women extension workers.

Second, we're already supporting programs, like the Award Program, that specifically identifies promising younger African agricultural scientists that are women, and gives them mentoring, training, and development opportunities, including opportunities to engage with United States-based scientists.

Third, in every country we do this, we will have strict monitoring and evaluation, and we'll do things, like collect household income in a gender-disaggregated way, because we know income driven to women in particular, has much bigger effects on reducing child undernutrition and on improving family welfare outcomes.

So, for reasons of effectiveness, there are very specific things we can make quite transparent, and we will.

Mr. LEW. Could I add one additional point? And we talk, often, about development and diplomacy working together. It's critical, if we want to stick to our principles, that we have a single, united approach to a country, and that it's not just a message that's heard in an Agriculture Ministry, but it's heard by the Prime Minister, it's heard by the Finance Minister. We have to be able to communicate, at all levels of government, back and forth, consistently.

I think we're trying very hard to do that as we put together the Food Security Initiative. Frankly, we're trying very hard to do it as we put together the Global Health Initiative. In many countries, we'll be talking about both of these programs together.

So, there will be rising expectations, in terms of what it is that we expect our partners to—how we expect our partners to perform.

Senator CARDIN. I think it is very important that, up front, the expectations are well documented and known by our partners, that it is clear that our participation is not to be taken for granted, that

if the standards are not met, that we are prepared to say it's not in the best interests of the United States, or the country in which we're operating, to continue that program. And we have to be prepared to leave if the standards are not being met. Because, quite frankly, you're not—we're not doing any benefit to the population if our participation does not change the underlining problems in that country.

Thank you, Mr. Chairman.

Senator LUGAR. Well, thank you very much, Senator Cardin.

It's a privilege to introduce and recognize Senator Casey, my partner in this legislation that we produced and that we're attempting to coordinate with the State Department.

Senator Casey.

Senator CASEY. Senator Lugar, thank you very much. And I appreciate your leadership, for many years, on these issues that we're coming together on. I think, in a way, that it's unprecedented, when you think about what the Congress can do, what the administration can do, and what our international friends can do. And not to leave out the tremendous work done by the—by foundations and nonprofit organizations. So, we're grateful for that leadership.

And I want to commend Senator Cardin on some of his questions, that I might follow up on.

But, I do want to thank you, Secretary Lew—

Mr. LEW. Thank you.

Senator CASEY [continuing]. And Director Shah, for being here today, for your work and your commitment. And, I think, by commanding your work, we're, of course, commanding the team that you work with and for, President Obama and Secretary Clinton and the whole team, so to speak. We're grateful for the commitment.

And I think when we come together today and have a hearing like this, and we have a discussion about this critically important issue of food security, we all come into this room for different reasons, I guess, or come from different experiences and different levels of commitment. But, I think I can go to anyone in this room, and if you ask them why they're here, it would come down to a couple of basic reasons.

We're here, I think, because we're summoned by our conscience, first of all. And we're concerned about security. Not just food security itself, but security itself, from harm that results when people are desperate and when countries have terrible situations, which lead to another kind of insecurity. And I think we're also concerned about the economic impact of this issue, here in this country and across the world.

So, as we think about our conscience, we're reminded, by some of those really compelling and disturbing statistics, there are lots of ways to express it, but, by one estimation—and people in this room know this number, but it's—bears repeating—every 5 seconds, a child in the world dies from malnutrition and food insecurity.

I was also struck by some of the numbers that were cited as it relates to both the role that women play in the solution, but also the disproportionately negative impact that this crisis has for women across the world. Sixty percent of the world's chronically

hungry are women and girls. Sixty percent. Twenty percent of which are children under 5.

So, we have lots of data, we have lots of diagnosis of the problem, and I'm glad that, today, we're talking about a solution—or, strategy is, maybe, the better word.

I wanted to talk about at least three areas, and maybe get to some more in a—maybe a brief second round, if we can. I know we have another panel.

I want to talk, first of all—or, ask you, first of all, about the—kind of, the budget, but maybe, more importantly, the coordination question.

The budget numbers are—and I know you don't want to spend all your time talking about your own budget, but it's—these numbers are pretty compelling, as well. Just in terms of—not only your capacity or the diminished capacity over time, but what that means for U.S. commitment around the world. One number that struck me was—1990, USAID employed 181 agricultural specialists; 2009, 22. Go from 181 to 22, in 20 years. It's not as if the problem has been cut back or diminished in that time—same timeframe; if anything, it got worse. We're at a billion people, more than a billion people, food insecure.

But, second, and related to that, the numbers, as it relates to—because of that incapacity or failure for us to make a full commitment in our budget and our resources, worldwide—or our commitment to agricultural development worldwide has declined. The other number that struck me was, worldwide, the share of agriculture and development assistance has fallen from a high of 13 percent in 1985 to just 4 percent between 2002 and 2007.

So, I don't want to just dwell on the numbers, but ask you—we know you need more resources. We're committed to that. And we're going to—we want to continue to work with you on that. But, maybe the tougher question to ask, and the tougher question to deal with, is—and, Secretary Lew, you understand this, because you've got management responsibilities, not just policy. And, Director Shah, obviously, has a really focused responsibility here. But, how do you cut through the red tape, the turf battles, the—all of the commitments that you've made and, I think, work you've already done on interagency coordination? It's one—I guess it's in that category of, it's easier to say than do. And I think, if there's a—in terms of where the public is on this—(a) the public may not have a full sense of the dimensions of the problem, and our scaling back, over at least the last 20 years, in addressing this problem. But, I think the public probably has taxpayers who—paying our salary—have probably a—there's probably a credibility gap. When we say, "We're going to cut through the red tape, we're going to be more streamlined, we're going to be more efficient in the Federal Government," and they say, "Yeah, I've heard that before." Can you walk through that again, in terms of how you're going to cut through that interagency or turf-battle problem?

Mr. LEW. Senator Casey, this is a core issue, because we will only succeed if we're able to accomplish that. I mean, we've talked extensively already about the need to draw on expertise from multiple agencies. It's just as important when we go into a developing country. One of the characteristics of a developing country is that

it's capacity constrained at the governmental levels. If we come with three or four loosely or uncoordinated programs, and other bilateral donors and multilateral institutions are there, also with loosely or uncoordinated programs, we're creating stresses on those capacity-constrained countries that it's unreasonable to expect them to be able to deal with. We owe it to them to be able to do the coordination and have the capacity, ourselves, to go to them with a coherent program, where the different pieces fit together.

You know, it's interesting, I've worked from different vantage points on this question of jurisdiction and, you know, what we in Washington call "turf." If we could just start by asking the question, "What do we need to do? What are the requirements?" and then, second, ask the question, "Who's best equipped to do it, and how do they work together?" we would be so much more effective.

I think, on this Food Security Initiative, that's how we've approached it. That's how we've put the funding together. That's how we've put the people together. And it's a challenge, because—it's a challenge to congressional jurisdictional lines, it's a challenge to agency jurisdictional lines. And, I, frankly, think there's no substitute for leadership. We have to provide the leadership, at the agency level. We need your support in having the leadership, at the congressional level. And we have to go out into country with ambassadors and AID mission directors and leaders who understand it.

As I travel to countries, the difference between where it works and where it doesn't work boils down to leadership. And we have to not just expect it of people, we have to train them for it, we have to model it for them.

I just came back from Afghanistan last Friday. I wouldn't want to compare Afghanistan to all of the countries in the Food Security Initiative, but some of the issues are similar. We have probably eight agencies of government working together there. It is making a big difference that we're coordinating in an area like agriculture, and going with one program; that we're coordinating in rule of law, and coming with one program.

This is one program. You know, we—if we don't get the funding, we'll be in a different place. It's a piece that's like a jigsaw puzzle; you can't take a piece out and have the whole picture. So, the multilateral funding is critical. I mean, we, at the State Department, don't normally advocate primarily for funding that the Department of Treasury typically requests. We put this together as a conceptual whole, where what we'll be doing on a bilateral basis dovetails with what we expect the international financial institutions to be doing on a multilateral basis.

So, we have to continue to see it as a whole. We make the commitment to working, at the agency level, and providing that leadership. The two deputy coordinators are committed to it. You know, Administrator Shah and myself and the Secretary are committed to it. And, most importantly, the President is committed to it.

So, I think you have our firmest commitment, from the executive branch, that we don't consider whole-of-government to be just a rhetorical phrase. It's a philosophy of how to get the job done.

Dr. SHAH. If I could just address a few points that you raised, sir.

First, on budget, it is worth noting—and you did, of course—that our FY11 budget request on inflation-adjusted terms, is still building back toward where we were in 1982, when we had capacities for providing support in this sector that were far in excess of where we've been over recent decades. So, it is a process to get back to where we were, and we hope to get beyond that.

Second, on expertise, we have been working, for about 18 months, to build real capacity, at the agency, in agriculture and food. I think the 2008 World Development Report, the work of you—your work and Senator Lugar's work, has all sent a powerful signal, and the agencies have been responsive to that. So, today we have more than 130 agricultural experts. They're not all in the agriculture office. They're scattered around the world. But, we're reorganizing that in a way that allows us to be more effective and efficient.

And, third, on coordination—

Senator CASEY. May I just ask you—when you started—or, I should say, when the new administration started, what was that number?

Dr. SHAH. Well, it—I'm—we've hired more than 40 ag officers—

Senator CASEY. OK.

Dr. SHAH [continuing]. In the last year, so, probably a little bit less than 90.

On coordination, we are working really hard to get that right. So, every week, I lead a meeting that brings the interagency colleagues together. We have the investment in the World Bank Trust Fund. The Treasury will, for example, sit on the board of that trust fund. But we are working very closely with them to make sure that trust fund supports the countries we're prioritizing, that come out of this country-led process, and that we're using each other's tools in a way that's most aligned. In some places, the multilateral development banks can more easily fund road infrastructure, irrigation infrastructure; we can fund seed research, extension efforts. In other cases, the reverse may be true. So, I think there's an opportunity to use those tools in a synergistic way, and cover the full agricultural value chain, which has been such a missing part of effective ag development strategy over the last few decades. Similar examples exist in research and other areas. But, that's how we're trying to approach it.

Senator CASEY. Doctor, I know I'm over time, but I'll come back—try to come back to both of you in a couple of minutes.

Thank you.

Senator LUGAR. Thank you very much, Senator Casey.

And I just want to follow up on Senator Casey's point by mentioning the whole-of-government idea is certainly central in the initiative. You've explained your thoughts about this. But, physically, who will do the coordination? In other words, in light of the multiple agencies in a country working to address, will direction come from USAID, from Secretary Clinton, from you, Secretary Lew? How does the coordination happen?

Mr. LEW. Well, in-country, the answer is easy. We have, you know, the Ambassador's chief of mission in-country, and we have made it clear that this is a priority for the Ambassadors to manage,

and they have DCMs who often do the day-to-day management. There will be strong leaders for the—in each country, depending on the country. You know, there will be different people designated as leader. But, the team—you know, the two deputy coordinators will be driving it on a day-to-day basis. Dr. Shah described the, kind of, oversight mechanism.

Each agency will ultimately be accountable for the funds that it has the appropriations for and that it's going to be spending and reporting on.

But, it has to tie together in a plan. We're not looking to have three or four or five separate streams, where you come back at the end, and they didn't do the whole program. As Dr. Shah just said, each one is a component of a unified program, and it only works if we get each of the components.

So, I think, in Washington, we're tightly coordinated, on a policy bases. The management ultimately has to be very strong, in country, for things to work. It needs to have the support of the Ambassador; and not just the support, but the active involvement.

And, you know, this will be something of a learning experience. I mean, you know, we're doing a number of whole-of-government efforts in a way that they haven't been effectively done before. We understand that. I think we're already seeing what works better than doesn't.

And I hate to get back to something that sounds so simple, but it really does depend on leadership. We have to make sure that our leaders, in country, know what's expected of them.

And I've been to many meetings where the question begins, "I want to do it the way my agency does it." If we say that's not an acceptable approach, it has to be, "Are we implementing the plan?" And our partners and other agencies have to do the same thing.

And again, I come back to it, we're going to need to be partners on this, because sometimes what we hear is, "Well, our committees want us to do this." If the message they get from us, and that they get from you, is that this whole-of-government effort is for real, and that you're going to be judged on whether or not you achieved that—people manage differently.

We have a lot of history that we have to overcome or move away from. So, I don't say any of this, suggesting that it's easy. And it requires an awful lot of time. And the reason we have two very senior Ambassadors coming in to run it is, it's not something that should be done by a mid-level officer. It requires, you know, that kind of both sophistication and experience, but, also, the respect that comes from that in the system. Both of—you know, USAID and State are systems where experienced Foreign Service officers have a standing to call people to account. And if they know they have the support of the Administrator, of myself, of the Secretary, I think we can do this.

It's clear to us that it's the right thing to do. It's also clear that there are a lot of historical and institutional barriers that we have to not be deterred by.

Senator LUGAR. Well, we, on the committee, will look forward to working with you as this whole-of-government approach grows, matures, and is perfected. It's so important.

Senator Menendez, do you have questions?

Senator MENENDEZ. Thank you both for your service.

Administrator Shah, the USAID has been the lead agency for the United States in poverty reduction. At one time, it was a highly respected thought leader. Particularly on agriculture, it led the Green Revolution. However, it has also been steadily decimated over the last couple of decades and has lost a lot of its technical capacity. So much so that today USAID has, as I understand it, only 16 agricultural experts, much fewer than in the 1980s.

Senator Kerry, Senator Lugar, Senator Corker, and I have been involved with legislation to try to build up capacity at USAID, which I hope that we can move soon. How do you plan to implement an effective food security strategy, or any other strategy, without a strong USAID?

Dr. SHAH. Thank you, Senator. And, Senator, with your support we hope to build a strong USAID to be able to effectively implement this program and all of the other responsibilities we carry.

Just a moment on that. There are four major operational reforms that I'm pursuing this year, with the support of the Secretary of State and the White House and others.

The first is to rebuild our policy and budget capabilities so that we can exercise thought leadership and organize our own thinking and speak with one voice, and do that in a coordinated way.

The second is around procurement reform. It's been a major part of our shared thinking in this space, that we need to be more efficient at how we implement efforts, and that will require procurement reform.

A third is in the area of human resources, where we're looking to expand certain technical expertise that, you point out, has been diminished over time, and that which is required of an agency that's called to take on significant tasks.

And the fourth is in monitoring, evaluation, and transparency, where we have an expanded accountability, to this committee and to the American people, to be more transparent and to be more indicator-oriented.

Senator MENENDEZ. Let's talk, for a moment, about the third of your four items, which is how you intend to attract and retain high-quality talent.

Dr. SHAH. Well, thank you, sir. I hope, in August, to launch a set of human resource reforms that will cover recruiting and retention. But, in food security, in particular, we have been aggressively recruiting top talent. We now have more than 130 agricultural experts at the agency. We are reorganizing our capabilities so that they can function together in an integrated way, and actually test each other's ideas and pushback. We're trying to create the rich intellectual environment that will allow us to recruit others. I've—this is a field, in particular, where I have certain expertise in relationships, and have had some successes, I think, in bringing on board the types of people that will help us be effective, and will help us link better to the private sector, expand the kind of innovative partnerships we can do with banks and with large firms and with local private-sector organizations, and that can help us work better with our interagency colleagues and with institutions like the World Bank.

So, I'm actually very optimistic, sir, in food security and in global health, that we can attract and retain a very, very high level of talent to do this.

And I'll close by just noting—and although we'll have a broader recruitment strategy than just this, I've put a lot of personal effort into recruiting. I think human resource recruiting is probably one of my top tasks, in order to help support this agency be successful.

And I enjoyed reading, just the other day, when Bill Gates was speaking to a university group, and students were asking where they should go to work to be part of this great mission of making the world a better place. He suggested USAID. And I know that's only one anecdote, sir, and we have a lot of structure to put around our recruiting efforts. But, we are working aggressively to rebuild our capabilities.

Senator MENENDEZ. Aside from your verbal response, do you have a plan of action in this regard?

Dr. SHAH. We do. We are refining it. It basically—there are two or three—

Senator MENENDEZ. Is it a written plan?

Dr. SHAH. It will be—yes, it will be written—

Senator MENENDEZ. And can you—

Dr. SHAH [continuing]. Within about a few weeks, if I could—

Senator MENENDEZ [continuing]. Share that with—

Dr. SHAH [continuing]. Send it to you..

Senator MENENDEZ [continuing]. The committee, please?

Dr. SHAH. Yes.

Senator MENENDEZ. Let me just shift to what's been going on with the Quadrennial Diplomacy and Diplomatic Review, a process that both of you are cochairing. Can you tell us where the process is and when Congress will have a chance to review the initial findings?

Mr. LEW. Yes, Senator. We are very close to being in a position to come up and brief Congress in detail on where we are. We've been trying to coordinate with a number of executive branch policy processes that have been going on. There's the Presidential study going on, on development, specifically. There's a national security strategy being developed. Our Quadrennial Diplomacy and Diplomatic Review is part of that overall effort. So, there's been a back-and-forth, and a healthy back-and-forth. I think the product we're going to come forward with is better for it.

I can't say if it will be next week or the week after, but we're talking about a very small period of time—

Senator MENENDEZ. You precipitated my next question because I was trying to quantify "we're very close"; I've heard "very close" a couple of times.

Mr. LEW. Yes.

Senator MENENDEZ. So, it's like the parent in the car, and the kid says—

Mr. LEW. "Are we there yet?"

Senator MENENDEZ [continuing]. "Are we there?" And, "Oh, yeah, we're just about there."

Mr. LEW. Yes.

Senator MENENDEZ. This kid is getting impatient.

Mr. LEW. I hear that. And I will take that message back.

We are impatient to come up here and do the briefing. We very much want the input. We want it early in the process, because, you know, we now have the next stage ahead of us.

What we've done up til now is identifying target areas of opportunity, the kinds of issues that we should drill more deeply into, different kinds of considerations that we should make, in terms of choosing—we can't take on every challenge that's ahead of us. But, the core issue that we're dealing with is, Do we have the capabilities, at the State Department and USAID, to address the challenges that we face over the next number of years? I think we've made a lot of progress defining what the tradeoffs are. We'll have to make more progress between now and when we have a final review. And having your input during that process will be very helpful.

So, we look forward to coming up and briefing.

Senator MENENDEZ. Well, we hope that that offer will be substantive—

Mr. LEW. Oh, absolutely.

Senator MENENDEZ [continuing]. Because we are, very much looking to be engaged. I've held my fire, as the subcommittee chair on foreign assistance but, I have to be honest with you, we want to be in sync, but it's not endless.

Mr. LEW. We appreciate that. And we appreciate the patience that you and your colleagues have shown. Obviously, in the first year of an administration, we had a lot of things we were taking on at the same time. This is a very important priority. We've put a lot of people into it. We've got about 500 people at the State Department and USAID engaged—just the process of engaging across our two organizations and coming up with an approach that we can come forward with, internally in the administration and, very shortly, to the Hill, is huge progress. So, we feel we've gotten a lot done, as we've worked through it.

I wish we were, you know, at the point where I could say, "We're up here tomorrow." That would be easier, and I know it would be more satisfying. But, I do think we're talking about weeks before we're able to engage in the way you'd like.

Senator MENENDEZ. Final question, if I may, Mr. Chairman.

Mr. Administrator, how many holds do you have on programs?

Dr. SHAH. I'm not aware of the total number, sir, but I can find out.

Senator MENENDEZ. Could you give me the total number, and for which programs there are holds on?

Dr. SHAH. Yes.

Senator MENENDEZ. Thank you.

Senator LUGAR. Thank you very much, Senator Menendez.

Senator Casey.

Senator CASEY. Thank you very much.

Dr. Shah, I wanted to get back to a question for you. And I know we've got another panel and a vote and a lot happening, so we'll—I'll try to be brief.

The question I wanted to focus on was the question of women; in particular, in terms of how that concern and focus is made part of the strategy.

I was noting, in your testimony, Dr. Shah, you said—and I'm quoting from page 5 (page 17 of this print)—“When the well-being of women is improved, there is consistent and compelling evidence that agricultural productivity advances, poverty is reduced, and child nutrition improves.” And I know you cited a person—Justine, in Uganda—and how her story exemplifies what one person can do when they have the capacity to farm and to produce.

But, I just want to have you talk about that, because part of the challenge here for us—I think, both the administration and the Congress—is not—will be not just to get the policy right and the funding and cutting through the agency boundaries and all of that—the coordination part of it—we've got to be able to convince the American people of the necessity for us to go forward with this kind of a strategy. And I think, when you look at some of the public opinion surveys, and you ask someone, “How do you reduce the deficit?” or “How do we make government—the Federal Government more efficient?” they'll often say, “Cut foreign aid.” And they think it's a big part of our budget. And when they hear a lot of what we're talking about today, they conflate that with things that they would—they sometimes think we would like to do, or they'd like us to do, but they can't—we can't do it in a recession. When someone's out of work in this country, they don't want us to be focused on other priorities.

And I think we have to connect for them how important this is to our own security, to our own economy, in addition to the moral gravity of these issues.

So, part of the way to do that is to be able to show them—show the American people that individual—individuals around the world, and most of them women, are both victims of, as well as—can be, increasingly, major participants in implementing a better strategy. So, I wanted you to have a—just talk about that for a few moments.

Dr. SHAH. Sure. Thank you, sir. I think the main point I would make is that we bring a really data-oriented approach to decision-making, with respect to a focus on women. And the two most important data points, in my mind, are the ones you've referenced. First, that we know a dollar of additional income going to a woman is far more likely to be reinvested in the well-being of that family, and, in particular, of children. The correlations between child school attendance or child nutritional attainment and women's incomes is far stronger than it is with men's incomes. That's just reality, and there's quite a lot of data to substantiate that. So, for that reason, what—the indicator we care most about is—are women's incomes.

The second critical data point is, we know that women are the decisionmakers and producers of food on—in the places where we're working—primarily dry land, small-holder agriculture that's highly vulnerable to climate, weather, and a range of other market conditions. So, in that context, we want to choose—we want to invest in the types of crop varieties that women are going to be more inclined to value and use.

Nutritionally enhanced crop varieties, for instance, are more likely to be adopted by women, because they're thinking more about the nutrition of their family. There's a great example in beta caro-

tene-enriched sweet potato in Uganda, which is the case I referenced, where, you know, women were responsive to a message that said, "This is a product that will improve, you know, vitamin A in children, and reduce child malnutrition in that way." And you saw big improvements in adoption when you targeted women.

The other example I'd cite is, there have been studies in Kenya on fertilizer that demonstrate that, when women are brought into the decisionmaking and when systems target women, particularly post-harvest, they're much more likely to purchase and store and manage access to fertilizer, on a continent where fertilizer use is, you know, virtually zero for staple crops and small-holder production. That's an important insight.

So, these types of insights are simply the data points that drive the way we're trying to make decisions here. And, frankly, the question came up earlier about, Do the countries themselves recognize this? And the answer is, absolutely. You know, Rwanda is a great example, where a female Agriculture Minister, who's a former Rockefeller Ph.D. scientist, knows exactly all of this information, and how to put it together in a way that allows that program to be successful.

So, you know, through our training programs, we hope to build more leaders like that. But, I'm very encouraged that we can be successful. And you have, on the next part of this panel, one of the world's leading experts, to talk about that in more detail.

Senator CASEY. Doctor, thank you.

Mr. LEW. Senator—

Senator CASEY. Secretary Lew.

Mr. LEW [continuing]. could I add that I think we all agree that food security is at the heart of economic instability in a lot of countries in the world. The food riots that we referred to earlier are just the most visible manifestation of that.

It's also the case that, where you have that kind of instability, it is a—an environment that is ripe for political instability. And you look at the threats that we're dealing with, where there are crisis or where there are wars, whether it's Afghanistan, where there's a war, or a place like Somalia and Yemen, where political instability is generally seen as a real clear and present danger to the United States. It's too late, if you wait for the crumbling of a society, to go in and prevent that from happening.

So, I would stand second to none in saying that this is the right thing to do, because it's the morally right thing to do. But, I also don't think it's at all inconsistent to say that it's a smart thing to do, if we want to look ahead and—look at a world where Americans will be more secure. It's not a good thing for Americans for there to be a lot of countries in the world that are failing or failed states, driven by the pressures of economic instability that's driven by food insecurity. So, I think it—we shouldn't make it a choice, that you either do it because it's the right thing to do or because we need to do—

Senator CASEY. Right.

Dr. SHAH [continuing]. it for our national security. I think it happens to be both.

Senator CASEY. And part of that challenge—and I'll end with this, because I know we have to move—part of that challenge is

in—without trying to trivialize the issue—but, sometimes the way we debate even very big and important issues in this country is in 30 seconds. And what would you want in that 30 seconds—maybe 27 seconds? I think you'd probably want two things—maybe three, but you might only get time for two. One would be graphically demonstrating that instability—that that's a manifestation or a result of food instability. And second, Justine. Tell her story, as opposed to having a graph about the problem or a chart about how we're going to make it work, governmentally.

So, it's a hard thing to do, but I think the more we can think about it in personal terms of real stories, as opposed to data—and then, second, to connect the dots to instability and, really, to a certain extent—I don't want to overdramatize this—but, to a certain extent, terrorism itself is one of the results.

So, thank you very much.

Senator LUGAR. Well, thank you very much, Senator Casey.

Without overemphasizing this point, I think we're, today, demonstrating a very strong bipartisan legislative initiative here today. Likewise, Congress has taken the approach of working with the administration in a unified fashion, which is tremendously important to our efforts.

So, we thank both of you very, very much for your testimony.

Let me suggest, at this point, that we will have a 10-minute recess for our next witnesses—

[Laughter.]

Senator LUGAR [continuing]. While Senator Casey and I vote and do our duty. A rollcall vote was called during the last question. We'll be back as rapidly as possible, and we hope that our witnesses will be with us at that point. We look forward to hearing them.

Thank you.

[Recess.]

Senator LUGAR. The committee is called into order once again.

The Chair thanks the witnesses for your patience. Fortunately, that will be the last voting interruption. We will proceed with the hearing.

I call upon the Honorable Catherine Bertini for her testimony.

STATEMENT OF HON. CATHERINE BERTINI, FORMER EXECUTIVE DIRECTOR OF THE UNITED NATIONS WORLD FOOD PROGRAMME, COCHAIR, GLOBAL AGRICULTURAL DEVELOPMENT INITIATIVE, THE CHICAGO COUNCIL ON GLOBAL AFFAIRS, CORTLAND, NY

Ms. BERTINI. Thank you, Mr. Chairman, Senator Lugar.

Senator Lugar, it's an honor and a pleasure for us to be here today. Thank you for inviting us. And, most importantly, thank you for your leadership, because it's your leadership, for many, many years, that has now—it looks like it may even culminate, this year, in real legislation and also, obviously, with a really strong commitment on the part of the administration, in the new administration of President Obama. So, it's—you've been in the right place all the time, and now the world is coming to the catalyst I think—

Senator LUGAR. Thank you.

Ms. BERTINI [continuing]. You've created. And we're very pleased to be a part of it, especially having been cochairs of the Chicago Council on Global Affairs Agriculture Task Force.

It's also been very, very encouraging to see what President Obama has directed, and how Secretary Clinton and Secretary Vilsack and Administrator Shah and others have been working to put those issues in place.

Just a few comments today, if I might, with the rest of our joint testimony being presented to you for the record.

As others have said in different ways, agriculture development is the single best way to try to decrease the large numbers of people who are still living in poverty. It's the best way, because most poor people still live in rural areas, because agriculture is still the biggest employer, if one can call it that, or, at least, time user of poor people in the developing world, and because investments in their opportunities and the opportunities of poor farmers throughout the world will magnify, many times over, in terms of decreasing poverty, decreasing hunger, and increasing the ability of people, families, communities, and countries to contribute economically to not only their own well-being, but their country's and the world's.

You know, we're doing this—you're doing this, Senator Casey and others, because it's the right thing to do. But, there are strong arguments, even for those who just want to know what's in this for the United States of America. And when we look at this from the perspective of agriculture over the long term, the demand for food, as you have said, is going to increase dramatically over the next 40 years. It already has, for many of the reasons that you stated in your statement. The world has to produce more food, and the areas and peoples who are going to be best positioned to have very significant increases in agriculture are those farmers in developing countries.

And if we think about this from a U.S. perspective over the long term, and from where we are going to sell our own agriculture production, the—some of the areas where we have sold the most—countries where we have sold the most in the past, to some of our biggest customers, are countries where the population is declining, certainly not increasing. And if, over the long term, we expect future space, future markets for our own agriculture production, we have to be in a position of knowing that there are people who can actually afford to purchase our agriculture commodities. And those people are going to be in the developing world. But, unless they are less poor, they are not in a position to be able to purchase our own commodities. So, if we help them, through helping their agriculture over the long term, it will also complement ours.

Several recommendations, quickly. And these are in our document and, certainly, in the report, earlier, done by the Chicago Council. We think, first of all, that the U.S. Government needs to support agricultural development, from a political perspective, a financial perspective, for many years, at least for the next decade. It's not the kind of project that we can say is a good idea for the next couple of years, because then we'll just waste a lot of money. It has to be a long-term commitment on our part.

Second, we are very—we are unanimous and very strong in the view that USAID should be strengthened and supported as the

lead institution, in order to advance U.S. global food security initiative. And, therefore, it needs to be given not only the resources, but the flexibility, in an effort to be able to achieve that.

And, third, we think that one of the important additions or expansions that should be put in place is allowing USAID to spend more of its resources on local and regional purchases of food aid.

Fourth, we believe that there should be much more attention, as you propose in the Lugar-Casey bill, for a stronger focus on agriculture research, education, and extension.

And finally, but—not finally; first, really, in terms of need, but finally, on my list—as virtually every speaker has talked about today, about both sides of this desk, is that we must highlight and pay attention to the roles of women. And this must be much more than just the rhetoric of talking about it, but actually putting in place some of the things that were discussed today, as far as measuring how we reach women.

And in the interest of time here, Senator, I want to offer, following up on Senator Cardin and others' discussions of these issues that, if you are interested in placing in the record a variety of ideas of how, actually, this not only could be put in place, this idea of reaching women and involving women, but also, potentially, how it could be followed and evaluated.

Senator LUGAR. Do you have items to place in the record today?

Ms. BERTINI. I can place some in verbally, but I'd like to send some to you to follow up on the discussion today—

Senator LUGAR. We'd appreciate that.

Ms. BERTINI [continuing]. If that's all right.

Thank you very much.

Senator LUGAR. Secretary Glickman, welcome.

STATEMENT OF HON. DAN GLICKMAN, FORMER SECRETARY OF AGRICULTURE, COCHAIR, GLOBAL AGRICULTURAL DEVELOPMENT INITIATIVE, THE CHICAGO COUNCIL ON GLOBAL AFFAIRS, WASHINGTON, DC

Mr. GLICKMAN. Thank you, Senator.

I'll be careful how much I praise you, because you might—it might not necessarily help you. But, I've known you for a long time, and you are an ideal leader in this country, and you have done so much to promote this particular issue, and I am just deeply grateful to count on you as a friend—

Senator LUGAR. Thank you.

Mr. GLICKMAN [continuing]. As well as a former colleague.

As you may know, I have switched jobs in the last few months. And I'm not here to promote my new job, but I'm now president of an organization called Refugees International, which, probably, will be seeking your assistance and your—at least getting an appointment to talk about issues that we care about, and very much indirectly related to many of the issues that we're going to talk about today. So, I thank you.

I want to just reaffirm a couple of points. Number one is, I think your legislation is important. It will provide long-term success in this effort. It will be a sustaining effort. It will provide coordination and direction and transparency.

And, you know, the fact that we can get something done into authorizing law is really important. These are very fine people who testified. I've worked with both of them in various parts of my life, and I can't think of two better people leading their respective agencies.

And Secretary Clinton, certainly, is in that mode. But, Congress needs to set the parameters for these things, needs to set some guidelines for these things. And I think it will help dramatically in the effort.

The second thing I would say is that the commitment, as Catherine said, must be long-term. It's not going to work unless it's long-term—at least 10 years. This is a long-term effort.

To reiterate her—what she said also, that the USAID should be the lead agency for the implementation of a global food security initiative over the long term. There are a variety of agencies with serious roles. Clearly, the diplomatic functions of the State Department are key; certainly agriculture research parts of the United States Department of Agriculture are key. But, this, historically, has been the development agency. And it's kind of lost its way over the years, for a variety of reasons.

But, I've been in government long enough to know that sometimes moving boxes around doesn't do much. It just makes people who move the boxes around happy. But, in this case, in my judgment, to be successful, there's got to be somebody, someplace clearly in charge. And that doesn't mean there can't be other actors here, in coordination, and the task forces to try to work these things together can work. But, my experience, in almost anything I've done in my life, but particularly in government, with turf being such a big part of the realities of what we deal with every way, is that a leader has to emerge that can direct action and, hopefully, inspire people to follow him or her in that process. And maybe it can be done through a division of effort, but I would just urge you—if that's going to be the case, then I would just urge you to keep riding herd as hard as you can to ensure that there is a minimum of this turf battle that takes place. Because, it's there. It's a natural phenomenon. It's part of the DNA of government. And what I hope that we've heard before is, the people who are here are committed to try to reduce that as much as they can. But, I know that those battles exist.

One very positive thing I heard today was—is that, at the ambassadorial level, the State Department is really pushing the ambassadors, the CEO of the United States of America in each one of these countries, to take the leadership role, to know the significance and importance of pulling these teams together. These teams have to be pulled together in order to get this done. Otherwise, I fear that we're just going to be scratching the surface and struggling and not showing very many—much results.

The United States of America used to be the undisputed leader in the world, helping people feed themselves, cloth themselves, basically allow people to become what the Good Lord intended them to become. And, you know, this is an opportunity here. We now have the Congress interested. We have the Secretary of State. We have the President interested. We have great leaders in this thing. Now is really the time to move.

And I guess, from my perspective, what I would hate to see is that inertia of government slowing things down to such a degree that, in fact, we can't get it done.

So, I guess, you know, ultimately, a lot of these decisions will be decided by the President and by the Secretary of State and by you and the Members of Congress. But, I would hope that we give USAID the kind of independence, authority, resources, flexibility and staffing necessary to carry it out, to do the development functions, working in coordination or collaboration with the State Department on its diplomatic functions, but recognize that the buck has to stop somewhere. And if the administration is carrying this out, it's got to stop with someone in that administration with the ability to actually get where the rubber hits the road, get what needed to be—get done—get it done. So, that would be my comment to you today.

Thank you very much.

[The prepared joint statement of Ms. Bertini and Mr. Glickman follows:]

PREPARED JOINT STATEMENT BY DAN GLICKMAN, FORMER U.S. SECRETARY OF AGRICULTURE AND CATHERINE BERTINI, FORMER EXECUTIVE DIRECTOR OF THE U.N. WORLD FOOD PROGRAMME; COCHAIRS OF THE CHICAGO COUNCIL ON GLOBAL AFFAIRS' GLOBAL AGRICULTURAL DEVELOPMENT INITIATIVE

Chairman Kerry, Senator Lugar, and members of the committee, thank you for giving us the opportunity to appear before you to discuss our ongoing work to identify opportunities for the United States to provide leadership in advancing global food security.

The Chicago Council on Global Affairs' Global Agricultural Development Initiative, which we cochair, purposes to examine the risks posed to the United States and the world by rural food insecurity, explore the role of agricultural development in alleviating those risks, and identify opportunities where the U.S. can better address these challenges by a renewed focus on agricultural development in its foreign assistance programs.

The work of the Global Agricultural Development Initiative builds upon a study conducted by The Chicago Council in 2008–09, which explored the challenges posed by global food insecurity in sub-Saharan Africa and South Asia and the appropriate role for this issue in U.S. foreign and development policy. The study concluded that nearly two-thirds of the people living on less than \$1 a day live in rural areas and depend on agriculture for their livelihoods. Moreover, the study also found that it was in America's security, economic, and diplomatic interests to work aggressively to alleviate the problem of global poverty, and that the most effective way to do so was through investing in the development of sustainable agriculture and food systems in the developing world. For these investments to be effective, they must target smallholder farmers, as they make up the majority of the world's rural poor, and pay special attention to the critical role women play in farm-level decisions. This study built upon the momentum created by Senators Lugar and Casey's introduction of the Global Food Security Act (S. 384) in summer 2008.

We appeared before this committee in March 2009 to present our study's recommendations for how the United States could provide international leadership to begin reducing global food insecurity through increased investments in agricultural development. The study's full conclusions and recommendations can be found in the report, "Renewing American Leadership in the Fight Against Global Hunger and Poverty" (The Chicago Council on Global Affairs, 2009).

Since last year, food security, and the important role agricultural development can play in advancing it globally, has continued to be discussed among those in the United States and international communities. The food price crisis of 2008, the spread of abject hunger and poverty to over 1 billion people in 2009, and the need to nearly double food production to meet the global demand by 2050, has caused world leaders to give new attention to how agricultural development in poor regions can expand the sufficiency and sustainability of the world's food supply.

The U.S. Senate responded quickly to these developments by introducing the Lugar-Casey Global Food Security bill in summer 2008. Upon taking office, President Obama has made clear his commitment to global food security. At the G20

summit in April 2009, the President called for a doubling of U.S. support for agricultural development in FY10–FY13. At L’Aquila in July 2009 the G8 announced a new \$22 billion multinational food security initiative. In September 2009, Secretary Clinton made public the U.S. Government outline for its Global Hunger and Food Security Initiative, and developing country leaders continued to recognize the need to invest in their own food security. Finally, as we speak, the World Bank, U.S. Department of Treasury, and others are launching the Global Agriculture and Food Security Program, a multilateral trust fund that purposed to finance efforts in developing countries to improve agricultural productivity, nutrition, and access to food. We were pleased that President Obama requested that Secretary Clinton oversee the development and implementation of a U.S. food security strategy, and applaud the attention, priority, and leadership the Secretary has given to this issues since early 2009.

In spite of these initial commitments, further progress in overcoming global food insecurity faces many obstacles. In times of economic hardship, it can be politically challenging to get sustained support for foreign assistance programs, however beneficial to U.S. interests they may be. Moreover, many critical issues—ranging from the ongoing conflicts in Afghanistan and Iraq, to reforms of health care and immigration policies—continue to vie for administration and congressional attention. Finally, it will be challenging, yet not impossible, to sustain U.S. leadership and financial and technical support for a long-term U.S. food security initiative.

It is our firm conviction that a long-term, well-resourced commitment by the U.S. Government to alleviating global food insecurity can drastically reduce global poverty, and that such a commitment is in the Nation’s security, economic, and diplomatic interests. On-going U.S. leadership, at both the executive and congressional levels, in partnership with developing nations, other bilateral and multilateral donors, international organizations, NGOs, and private sector stakeholders, will be critical to a U.S. initiative’s success.

Advancing global food security will continue to be in America’s economic, security, and diplomatic interests for the foreseeable future. Agricultural development has been demonstrated as the most effective way to alleviate rural poverty over the long term. Nearly 75 percent of the world’s poor resides in rural areas and depends on agriculture for their livelihoods. Moreover, the majority of population growth projected to occur between now and 2050, and therefore much of the increase in demand for food, will take place in developing countries. Investments in agriculture and food systems reduce poverty directly by increasing farm incomes and the availability and access to food, and indirectly, by generating employment and reducing food prices. These investments have been demonstrated to be twice as effective in reducing poverty as investments in other development sectors.

Investing in global food security also advances U.S. national security interests. Through ongoing leadership on food security, the United States can renew ties and relationships in regions of heightened strategic concern, increase its political influence and improve its competitive position, while hedging against the serious future danger of political instability. The United States is already seeing the benefits of investing in agricultural development as part of its larger foreign policy strategies in Afghanistan and Pakistan. There are further opportunities to strengthen relationships with regions of heightened concern, throughout Africa and Asia, by providing fundamental investments needed to stimulate economic growth. U.S. global food security policy also mobilizes the talent and influence of America’s best institutions—its world-renowned agricultural research apparatus and land-grant universities. To address rural poverty and hunger in these regions is a wise and efficient deployment of America’s “soft power.”

Moreover, investments in agricultural development will help the United States hedge against future demands on the agricultural and food sectors. By 2050, research suggests that global demand for food will double due to increases in population growth, shifts in dietary preferences, changes in climate, and scarcer resources. Climate change and resource scarcity, primarily the growing limited availability of fresh water, will affect agricultural productivity worldwide—from farms in Nepal and Ethiopia to those in Iowa and Kansas. If the world is going to be able to meet the growing demand for food, and avoid a significant increase in poverty, it will need to produce more, using fewer resources, in increasingly temperamental climactic conditions. Experts suggest that farmland in the developing world, much of which is currently underutilized due to lack of irrigation and access to productivity enhancing inputs and technologies, will be some of the only land where it will be feasible to dramatically increase production to meet the needs of the global food supply.

Finally, increased economic growth in the developing world will create new trade and investment opportunities for American business. Already in South Asia, where

GDP growth averaged above 8 percent between 2005 and 2008, American investors and exporters are making important gains. In 2007, U.S. total exports to sub-Saharan Africa totaled \$14.4 billion, more than double the amount in 2001. Research also suggests that as production in the developing world increases incomes are raised and dietary preferences shift, causing demand for U.S. agricultural commodities increases. A renewed American focus on alleviating poverty reduction through agricultural development will pay significant economic dividends in the long-run, to both U.S. businesses and the U.S. farmer.

The Obama administration and 111th Congress have recognized the importance of providing political leadership and financial support for a U.S. global food security initiative. The administration's Global Hunger and Food Security Initiative led by Secretary Clinton and now by USAID Administrator Rajiv Shah, and the President's request to Congress of \$1.8 billion for funding toward agricultural development in FY11, are important first steps. However, passing authorizing legislation, which supports and complements the administration's Initiative, will be critical to the long-term success of a U.S. global food security policy.

Institutionalizing global food security as an official component of U.S. development policy will cement for the long term the good work this administration and Members of Congress, many present at this hearing, have done on these issues to date. Empirically, policies that have been supported by both the executive and congressional branches have had the greatest success, in part because they have been reviewed and resourced over a multiyear period. The U.S. Food Assistance Programs, the President's Emergency Plan for AIDS Relief (PEPFAR), and the Millennium Challenge Corporation (MCC) have improved the lives of millions worldwide, and continued to be effective after the Presidents, Cabinet Members, and Members of Congress that fought for their establishment left office.

Legal authorization of U.S. global food security efforts also gives direction and coordination to the various entities in the U.S. Government that are working on these issues. A recent GAO report identified 19 U.S. agencies that carry out or are involved in food security activities. The current administration has set up tools to begin coordination of these agencies' programs, but legislation will provide an official framework to direct differing agencies' mandates and provide a permanent mechanism for coordination and cooperation.

Finally, legislation would provide a framework for regular review and evaluation of U.S. food security policy. These are useful tools for overseeing and implementing agencies to help see if programs are having the desired impact on the ground, but it also would also provides transparency and congressional understanding of America's work in this area, which would help support the regular, annual appropriation for a national food security policy.

Although there are other urgent priorities confronting the Congress, the time is ripe to consider and pass legislation on global food security. International and national leaders and multilateral organizations are giving significant attention to the challenge of global poverty because of the recent food price crisis and ongoing period of economic distress. Moreover, unlike many other issues facing Congress and the administration, global food security, and decreasing international poverty and hunger, has always been a bipartisan issue. Relatively small investments in agricultural development (\$1-\$2 billion/annually), if done strategically and sustained long term, are responsible and effective uses of taxpayer dollars because of their proven success. According to a 2008 study by the International Food Policy Research Institute in Washington, DC, if total investments in agricultural research and development in sub-Saharan Africa were increased to \$2.9 billion annually by the year 2013, the number of poor people living on less than \$1 per day in the region would decline by an additional 144 million by 2020. If annual agricultural research and investments in South Asia were increased by \$3.1 billion by 2013, a total of 125 million more citizens in this region would escape poverty by 2020, and the poverty ration in the region would decrease from 35 percent to 26 percent.

As the administration and Congress continue to develop a national global food security policy, we offer the following recommendations based on our experience working on development, agriculture, and emergency assistance issues in the U.S. executive and congressional branches and international organizations:

- *Provide sustained political and financial support for agricultural development for the next decade.*

Unlike investments in other areas of development, where the results can be seen shortly after program implementation, agriculture and food systems are built through long-term, strategic investments across multiple sectors (e.g., research, education, infrastructure development, local and national trade capacity) and by engaging multiple stakeholders (e.g., bilateral and multilateral donors, international organizations, recipient countries, NGOs, businesses, and

local civic organizations). Because of these complexities, it will take time for agricultural development to produce its full impact on the ground. However, if the United States can sustain its leadership and provide technical support and small financial investments to a global food security initiative for a decade, it will produce the desired result: higher productivity on small farms in underdeveloped countries, higher incomes for small farmers and their families, a dramatic increase in the global supply of food, and a significant decrease in the number of people, especially women, living on less than \$1 a day.

- *Strengthen and improve USAID as the leading institution to advance the U.S. global food security initiative.*

Successful assistance policies cannot emerge from inadequate institutions or from institutions that do not coordinate with each other and lack strong political leadership. A strong institutional framework is required to turn good ideas into operational policies and ensure that any added budget resources appropriated by Congress will be put to proper and effective use.

We recommend that clear lines of authority and command be established inside the executive branch, emanating first from the White House, then through a single lead agency for international rural and agricultural development and hunger reduction. We believe a revitalized and strengthened USAID should be that lead agency. USAID has been carrying out agricultural development and U.S. foreign assistance policies for decades, and is uniquely positioned within the State Department to coordinate America's development policy with its overall foreign policy goals. However, in recent years USAID has been significantly weakened. To restore its strength, we recommend USAID be given an independent relationship with the Office of Management and Budget in order to give it authority and flexibility to most effectively carrying out U.S. development and food security activities. Its leadership on the Global Hunger and Food Security Initiative should be supported by the White House, other Cabinet agencies, including the U.S. Department of State, and in any corresponding legislation. Finally, in order to play this enlarged role in the area of agricultural development, USAID must be given enhanced professional staff resources in addition to an increased budget.

- *Improve America's food assistance policies by increasing the authorization and appropriation of funds for local and regional purchase of food aid.*

America is the world's largest donor of food aid to hungry people, a matter of justifiable national pride. Hundreds of thousands of lives have been saved through this assistance, and hundreds of millions of lives improved. The in-kind food assistance provided and distributed by the United States, the World Food Programme, other bilateral donors, international organizations, and NGOs should be commended as one of the greatest emergency relief and development tools the international community has to alleviate global hunger. However, our food aid programs, which are effective in emergency situations, do not go far enough in dealing with long-term, systemic problems, and America does not get enough payoffs from its large food aid budget because of several longstanding practices in the way it is delivered.

There are many ways that America's food aid policies could be improved, but we would especially recommend increasing authorization and funding for local and regional purchase in long-term development situations. International purchase allows food to be procured much closer to the beneficiary, reducing transport costs and ensuring compatibility with local diets. Local purchase also supports local markets, putting more money into the pockets of poor farmers, which in turn, boosts sustainable local and regional agricultural development and helps reduce poverty.

- *Increase support for agricultural research, education, and extension.*

Significant investment—both financial and technical—into increasing agricultural research, education, and extension programs in the developing world will be critical to advancing global food security. The administration's Global Hunger and Food Security Initiative and the Lugar-Casey Global Food Security bill both have provisions to increase support for these components. We recommend that these areas be a key focus of any national global food security policy and should include providing financial support to the Consultative Group for International Agricultural Research (CGIAR), individual country's National Agricultural Research Systems (NARS), and to the Collaborative Research Support Programs (CRSPs) run out of U.S. land-grant universities. Moreover, the United States should also support the development of higher education capacity and performance within specific regions in the developing world. These institutions could provide research, technology development, and extension services to best suited to expand agricultural productivity in its region.

- *Begin implementation of a U.S. food security initiative quickly.*

There is no time to waste in implementing a U.S. global food security initiative. Under a “business as usual” scenario, rural poverty and hunger will continue to worsen. These problems will become far more difficult to address with every year of inaction. The time to begin implementation of this policy is now.

We applaud and support the initial steps both the U.S. administration and Congress have taken to make food security a central component of U.S. development and foreign policy. We want to thank Senators Lugar, Kerry, and Casey, and the other members here today, for their leadership on these issues. Many of the actions outlined in the administration’s Global Hunger and Food Security Initiative and the Lugar-Casey Global Food Security bill have been proven effective in the past—through the remarkable earlier achievements of the Green Revolution—when adequately funded. If administration and congressional leadership for a U.S. global food security initiative is sustained for the next decade, and the correct technical and financial resources provided, it could lift millions out of hunger and put them on the path toward self-reliance. It would also invest in America’s political, economic, and security interests; its institutions; and its moral ideals.

Senator LUGAR. Well, I thank both of you for all the responsibilities you’ve shouldered over the years. And I wish you every success, Secretary Glickman, in your new responsibilities at Refugees International.

I simply agree with both of you, that we’ve talked a lot today about the whole-of-government approach, but we also have tried, in our questions, with very distinguished witnesses, to zero in on the specific role of USAID and the State Department.

Now, one reason we are having this hearing is that the committee has worked, through its staff, in a bipartisan way, with officeholders in the State Department—among them, officials in USAID. It was only a very short while ago that Rajiv Shah was named USAID Administrator. This is something our committee encouraged for many months, sensing some of the trends that have been noted today, with regard to USAID, and likewise, its importance. I think we’re very excited about Administrator Shah’s leadership, and I see his testimony today as further evidence of that.

We’re also excited that Secretary Clinton has taken a personal interest in this area. Without that, assuming a whole-of-government approach would be much more of a challenge, as there are many interests involved in this.

Therefore, we’ve come to a point—and this is the reason why I’m indebted to Senator Kerry for calling this hearing—in which our legislative effort, which passed the Foreign Relations Committee back in 2009—has finally gained has some traction with the State Department and USAID. As we coordinate on additional language that will culminate in the unveiling of a new bill. I am hopeful the bill will have some universal support in the Congress, simply because of the crucial problems it will seek to address. But, it’s important to underline the issues you have both brought forth today.

The goals of such legislation are meant to be helpful in a humanitarian sense. But, there is also another sense, in terms of the world in which we live, as we all talk about the problems of international banking, the implications of failures, in various countries, which have ramifications on jobs, on even the existential ability of a country, such as Greece right now, for example, to handle its finances. Arguments abound, whether it be with the European community or the World Bank or everybody else, as to whose responsibility it may be to address these issues, with lingering thoughts

that there are other nations right behind that may fall into similar difficulty.

We know that these are systemic worldwide difficulties, and if our country does not take a leadership role in solving these issues, the ramifications for the future will not only be starvation, which we've illustrated today, but a world that is so insecure for our young people that we will rue the day we were not more farsighted and had the resources we presently have at our disposal.

So, it's in that sense we hope there is leadership, with USAID at the helm in coordination with the other involved parties, including our Ambassadors, as has been pointed out, as a focal point. Ambassadors will have to try to maintain some control over the unique factors at play affecting the work undertaken by their respective embassies. We will have hearings from time to time, as parts of the U.S. Government come into a country and don't inform the Ambassador or are seemingly rather out of touch.

You've both presented the idea that this has to be a long-term proposition. Every country that we are visiting with now agrees that this really has to be a commitment that is enduring and comprehensive in nature.

Now, I would just say, in a personal sense, I understand this. I don't want to overemphasize my farm-family background, but, I've seen, on the acres of corn that we grow, a growth of about four times the yield that my dad was getting in the 1930s. This has occurred physically. I've witnessed it. It's still being harvested. So, we're worried about the price of corn.

Now, I would just say to American farmers who are concerned about people buying food or producing it abroad, as opposed to either importing it from us commercially or hoping that agencies would ship it to them through some emergency process, that the market is very big. If we're talking about twice as much food in the world, required just to maintain where we are by 2050, then this is a lot of production. It means that our markets are going to be strong, if we can engage with the World Trade Organization and work out all of the problems that occur right now in the trading of food worldwide. The problem of governments that shut down exports in response to pressures on food supplies and prices needs to be addressed. I think our colleagues today have said this. Why would the American public, in addition to a natural humanitarian reaction, find all of this to be more than interesting? In many cases, the future of our domestic agriculture will be one in which farmers will need to produce more on U.S. land to provide for these markets and will make a good livelihood doing so, as most of our young farmers now entering the business know.

So, there is a very considerable American self-interest in this. It is also important that this committee in coordination with the executive branch finally get a piece of legislation that the President of the United States and Secretary Hillary Clinton can advocate on behalf of and urge Congress to pass, even in the midst of the many other issues we face.

Your testimony is tremendously helpful in trying to push this along. If you had not already testified to this point, I would have asked you for your comments about this whole-of-government approach. With both of you having been involved in executive branch,

you could certainly discuss the prospects of this ever really coming about. Who needs to construct such an approach? You've said, "Well, USAID needs to do it." But, obviously, it needs the support of higher authorities such as the Secretary of State, and the President.

Do you have any further comment on this matter? I reiterate this because it is so critical in ensuring that all of this can work.

Mr. GLICKMAN. Well, first of all, you have a President and a Secretary of State who've made this a priority. That is—for a long time, that's—

Senator LUGAR. Yes.

Mr. GLICKMAN [continuing]. We haven't seen that, and that makes a big, big difference.

You know, in terms of the—what I call "basic development decisions," and how technology and research is transferred, how you bring the—let's say, the American Land Grant institutions into co-ordination with the academic institutions elsewhere—where I call the actual—where the rubber meets the road, on the ground, I think that's a function of the development agency. And that's what—AID needs to be empowered to do that job, like they did in the 1960s and '70s, and participated in the Green Revolution, and saved hundreds of thousands of people from death and starvation, maybe millions of people.

But, you know, it's clear that in a government as complicated as ours, you've got to have Congress engaged, on an intimate basis because they're the appropriators. I mean, they're the authorizers—where the money comes from. And you also have to have the research arm of America, whether it's the Department of Agriculture or the land grant institutions or the private sector, who are involved in creating new products all the time, involved.

And, you know, I do think that we have—we're finally focused on this issue, where we weren't, 5 or 10 years ago. And maybe it was because of the supply shortages. I remember, when I was in the House, I first came here and was—constant problems of supply management schemes in order to get production, supply and demand in line. And today, I think we've realized that we don't need to do that like we did. And you were, of course, one of the leaders in trying to get rid of some of those practices. And I probably was on the other side of you when I was a Congressman from Kansas way back then.

Senator LUGAR. Not to worry. [Laughter.]

Mr. GLICKMAN. Yes, right.

But, I think that, generally speaking, people of good will can come together and put—and try to solve the problems of hungry and starving people, because correcting those problems have remarkable ramifications on politics, on society, on doing the right thing; and also on national security, as well.

Ms. BERTINI. If I might, Senator.

Senator LUGAR. Yes.

Ms. BERTINI. When I was with the World Food Programme, and spent much of 10 years traveling in the developing world, I was able to see USAID up close in many, many countries, and I could see the depth of their knowledge and their leadership in the aid community, beyond representing the United States, but also leader-

ship among the other bilateral aid agencies. And they were very, very important as advisors to us in the international organizations. I—but, today, when we sit here, we constantly hear, both publicly and privately—even from the strongest defenders and supporters of AID, hear about their weaknesses. And we can see what's happened over time; they've been micromanaged by Congress and by various administrations. They have lots of earmarks about what they have to do, that cuts back on their flexibility. They no longer have a relationship with the—a direct budget relationship with OMB. And they have outsourced so much of their work that it's hard to manage all these other entities that aren't even part of the U.S. Government.

So, there are a lot of things at USAID that need to be fixed, or else we're going to sit here, 2 years from now, still talking about how AID needs to be strengthened.

It has, as you have pointed out, now, a terrific new administrator. Dr. Shah and I worked together closely at the Gates Foundation; in fact, he brought me in there. And I know how brilliant he is and what a good strategist he is and how goal-oriented he is. But—and that alone can be tremendously useful for the U.S. Government in his role at AID, but he needs support. He needs senior political people nominated and confirmed. He needs some budget authority. He needs to have—as my colleague Dan was saying, he needs to be in charge, and to be respected as being in charge, in terms of how the rest of the operation needs it. Congress should let up from a lot of the telling-you-what-to-do-things that they do with AID. So, he needs space and flexibility. He has the talent, but he needs all of us to be supporting AID in ways that haven't been done before, or at least not in the recent past.

Senator LUGAR. I appreciate your mentioning the Gates Foundation. At the onset of today's hearing, I cited a piece from this morning's Wall Street Journal by our Secretary of the Treasury and Bill Gates that I asked to be added to the record. Also, we've had testimony, as Chairman Kerry pointed out, from Bill Gates about his interest in food security.

I mention this because, in conversations that I've been privileged to have with Bill and Melinda Gates about, specifically, how markets could be set up in various African countries through the construction of roads or other forms of infrastructure to facilitate the movement of goods, we end up coming back to an item that we mentioned earlier on, reminding me of the testimony of Dr. Norman Borlaug before the Agriculture Committee. We asked Dr. Borlaug to come back to the committee annually, in order for him to report on his activities and express his point of view on broader happenings related to agriculture taking place throughout the world. In the last few years that he was able to testify, he was working principally in Africa. Extraordinary events had occurred in China and in India, not only through his efforts, but through many people who he inspired.

We also came back to conversations that each of you has had, and I am certain that Dr. Borlaug had with people who are genuinely concerned about genetically modified seed, fertilizer, or anything that has the GM label on it. I've had a good number of such conversations in Brussels with officials from the European Union

and with others in the German Government. It becomes almost a theological issue in which the feelings are so great about saving the environment, saving the soil, saving other plants, birds, or even insects. Such ideas are literally implanted in Africa with the message by Europeans ascribing to these beliefs that the ability of the African people to import their food is dependent on continued adherence to their point of view on GM products. It suffices to say that this has led to the roadblock we find ourselves in today.

Now, the Gates Foundation has attempted, as a private organization, to break through on this, and they have done a lot of good, and, thank goodness, will continue to be advocates. I'm grateful for that. But, this still remains a serious problem.

In fairness to the European Union, on one occasion while I was in Brussels, a report was published out of the EU indicating a considerably more liberal viewpoint with regard to genetically modified practices. And that, in fairness, has manifested in many of their deliberations. So, I don't want to characterize the Europeans *per se*. Although, I would just say, with many German legislators that I visited on the same trip, the feelings were adamant that anyone would be sure to despoil the whole neighborhood by even thinking of such a practice.

How do we move beyond this? After all of our conversations about the lack of productivity here really get down to situations where, for example, a single woman is trying to handle less than an acre of land, with very deficient seed, fertilizer, or whatever she has to work with, almost no market for her product, and the hope there might be some harvest just to provide some nourishment to her family. This is still the overall practice that we're looking at. We can talk about this research, and other people trying to produce breakthroughs of this sort, but, from your expertise, can you discuss how we move beyond the status quo?

Mr. GLICKMAN. To arbitrarily restrict research, based on, in large part, a nonscientific perspective of the world, is a tragic mistake. I mean, somebody talked about climate change today. How—I think it was—Senator Kerry talked about conflict in Ethiopia because of dry-land agriculture and the ability to find food for animals.

And so, research can look at ways to grow crops with less water, less pesticides, more adaptably, and more nutritiously. I understand—because when I was Secretary, I dealt these issues, and I understand that you have to have a sound, effective regulatory scheme, so that—and you've got to also deal with some of these issues of ownership and intellectual property rights, so that the fruits of the research are available in the developing world in sensible ways.

And I know that the Gates and the Clinton foundations, and others, have been working on that. So, that's got to be all part of the situation. But, to arbitrarily restrict research, when that's what has caused humankind to achieve so much of what we've done, is just downright stupid.

And it—I get the sense that there—especially in the whole climate change environment, there is a growing recognition that we've got to be open to new technologies to deal with some of these issues. We won't be able to feed ourselves.

You know, this whole thing with the volcano has struck me that—like, well, what impact is that going to have? What if we go through a period of great volcanic activity, and it begins to cool the atmosphere and then it's going to affect crop production? You've got to have research that deals with those kinds of things. And some of that research may involve genetic technology, genetic engineering. We're doing that with human research now—I mean, targeting cancer therapies, based upon your DNA, and then being able to move the genes around to be able to find cancer therapies that are more targeted.

One of the things that has struck me, that I think the research needs to focus on as much as they can, is things which actually benefit the human species or the animal species. So, we—in the past, there's been a tendency that some of these technologies look like they're just, perhaps, enhancing the economic value of the product that's being produced, without having a benefit associated with it. And I think—at least there's a perception of that out there. But, to not do the research is idiotic.

Ms. BERTINI. Related to that is—part of the problem is the lack of knowledge, and perhaps, in some cases, a lack of information available about any sort of impact of consumption of large amounts of food that has been genetically modified in populations where most of their food that they do consume could be genetically modified. And I—so, I think that's one area of research, which, if we had more background about that, would go a long way, in terms of helping to answer questions that have been raised, particularly in Africa, about, Is this good to eat? Remember, the big issue, some years ago, when Zambia and Zimbabwe said, "We don't want any of this genetically modified food." Part of the issue was, the U.S. said to them, "Well, we eat this, and it's OK." And they said, "Yes, but so much more of our diet is made up of this. So, what kind of research is available to show us that it's OK if 70 percent of our intake is from this kind of food?" And I'm not sure that those kind of questions ever were successfully answered. If they were, that could help.

But, ultimately, also from an African perspective, there's the issue of markets, which gets back to the Europeans. And as more and more countries outside of Africa are developing—using genetically modified capabilities, part of that issue might end up being moot, because it will be very difficult to keep the "purity" of available food that hasn't been genetically modified.

What I've heard more from African representatives with whom I've talked about this than anything else is, "Please don't leave us behind. We feel like we were left behind in the Green Revolution that hit Asia and Latin America, and we don't want someone else deciding for us whether or not this is appropriate technology for us." So, the bottom line will come back, then, to African governments making this—these decisions.

Mr. GLICKMAN. If I just may add something. I've always felt that some of this—the discussion of this issue has, historically, taken on a bit of an anti-American sentiment to it, and may be encouraged, at times, by some of the companies that held the patents on some of these issues not being as careful about how they market them or how they monetized them. And, hopefully, we're seeing a change

of that, particularly with the efforts of foundations like Gates and Clinton and others. But, I think there's—some of the suspicion may not be related to science at all, but may be politically raised.

Senator LUGAR. Senator Casey.

Senator CASEY. Well, thanks very much.

I know I'm the late arrival here, and I was—we're all doing a little juggling, here.

But, first of all, I want to thank you both for, not just today and your testimony, but your great leadership and your passion about this issue for so many years. And we need that. I—we all figured out, a long time ago, that all the answers aren't here on Capitol Hill; we need some help from outside, even from those who have been on Capitol Hill for a while.

Mr. GLICKMAN. Thank you.

Senator CASEY. Mr. Secretary, we're grateful.

Your testimony makes it very clear what you think the steps are that we should implement and undertake. I did want to make note of one—I think it's your last bullet point, or second-to-last bullet point, on page 5 (page 42 of this print)—Increasing support for agricultural research, education, and extension. Now, as a Pennsylvanian that has a big institution like Penn State, I'm dutybound to mention that. But, in a very serious way, I think that's—part of this message that we have to deliver as we're working on this and try to implement policy is that this can be a very positive development for these great institutions and the students and professors and people with doctoral degrees that want to help the world. We can give them more of an opportunity to do that. So, I think it's very much a positive message to send to the world, that we're going to try to create more expertise around the world for that kind of—those kinds of disciplines.

But, I guess I'd ask you two questions. One is, How do you assess where we are now, when it comes to that—those three areas—research, education, and extension—kind of where we have to get to?

And then the second question that I'd ask you to answer, is there anything in the administration's strategy that you have a real concern about, or that you think will be difficult to implement? We want to have an honest dialogue here about implementing their initiative and getting our legislation passed. But, is there anything, in particular, that you have a real concern about that you think we have to change or be conscious of to—as we begin to implement?

Mr. GLICKMAN. You want to go first?

Ms. BERTINI. Yes. Thank you, Senator.

Well, first of all, we also applaud your leadership with Senator Lugar and your bill. And one of the reasons why we were pleased to come to testify today is because we think that passing this legislation is so important, to put these kind of programs in place over the long term. We applaud the administration's priority and direction. And it is the right time to be doing this kind of work.

However, we really believe that this must be part of U.S. policy over the very long term. And that's one of the reasons why your legislation is so important.

As far as research, education, and extension are concerned, we have incredible capacity at Penn State and at the other land grant colleges, and historically black colleges around this country, as well

as at other universities. But, there is a huge need, in Africa and in much of the developing world, to share expertise.

The United States used to do much more of this—in the 1970s and the 1980s, for instance. You'll find, when you travel, many people, that are my generation, for instance, that were educated in the United States and then went back home and are senior agricultural experts in their countries now. But, there are not a lot of more junior people because we haven't been promoting that kind of work for some time.

But, whether we bring students from Africa here, or whether we help build their institutions—the institutions in Africa and elsewhere, which would be even more important, to reach more people over the long term—all of those are things that we haven't done, and should be doing, and have the great capacity to do, through our own educational structures.

Many countries in the developing world have research operations—have a agriculture research institute or some sort of a directorate. But, there are a wide range of capabilities in those institutes. One thing we could do very quickly, from the U.S. Government, is to make an analysis of some of those institutes, and then find comparable people at institutions in the United States, and give them a menu of opportunities of expertise that's available, and say to a country, for instance, "We'd like to help build your expertise at your research institute. Here's a menu of the kinds of expertise we might have available to you." Then we could—and then we could fund Penn State or Indiana or whomever—Purdue, rather—Cornell, Wichita State—

Mr. GLICKMAN. No, Kansas—

Ms. BERTINI. Kansas State. Kansas. [Laughter.]

Ms. BERTINI. Sorry, sorry.

Anyway—to be able to give them a menu of, you know, "Here are some of the capabilities. How can we help you?" And then we could fund that university, in order to help them.

Part of what Dan and I have talked about on the Chicago Council is how important it is, again, that we provide a listing of the capabilities and availabilities that we have in this country, and that we fund support for those institutions, but that we do it through the developing country. So, we don't want to go and show up and say, "Hi, I'm from Purdue. I'm here to help you." We want them to say, "Gee, we really think there is some great expertise in the development of tomatoes at Purdue that we want to be able to use. And could we please—would you fund Purdue to come to us to help?" And that's really, I think, part of that process, for both research and education.

But, the agricultural institutions in Africa are overcrowded and need a lot more capacity. We could help in many ways through our own institutions.

Extension—it was mentioned by Dr. Shah in his testimony—is an area that needs a lot of work, and that's one area where it's critical that it be gender-sensitive. Since there are so many farmers who are women—the vast majority—and since women and men don't necessarily communicate outside of their own household, especially on technical matters, and since women are much more likely to follow the direction of other women and the advice of other

women, it's almost a nonstarter that we need to build extension capacity that includes large numbers of trained women. So, that's just another area where we could provide a lot of expertise.

Mr. GLICKMAN. You know, I remember, your colleague, Thad Cochran set up this program, the Cochran Fellows, and they bring people from South Africa—it was shortly after Mandela came in, and then it's—I think that program is still continuing. I don't know exactly what the funding is. And I remember—they'd come here. They'd go around. They'd learn techniques of agriculture production. They'd also learn a lot of business techniques. It was a comprehensive thing. And to look into the eyes of these young men and women, and see that they now go back and become great entrepreneurs and great agriculturalists, and have done so—there's a remarkable positive impact. That's just one small type of program. So, there are great opportunities out there.

You know, all the public universities in this country are having this terrible funding crisis now. And so, I'm sure that these programs are going to be impacted by just the fact that the State aid is falling, the tax base is in trouble, and everything else. And, you know, your legislation at least will keep this in the priority area, and, hopefully, will encourage these universities to continue to be involved in these efforts.

Just two other quick things.

The Internet. Modern technology does do something that we haven't seen in a long time. It allows people to leapfrog, to communicate instantaneously. You see massive sales of cell phones all throughout Africa, that—you know, I mean, it's like they hadn't needed to build an infrastructure of a telephone system. They just have cell towers, and they can talk to each other.

And so, one of the things is to explore how modern technology can get—a transfer of information faster—transfer of all sorts of techniques, to get people to move into an economic mainstream, at least in agriculture, much faster than they have before.

Catherine also mentioned the issue of best practices. We need to somehow figure out, either AID or somebody working internationally, perhaps with the U.N., but perhaps with the CGAR network, to develop a place where people can go to and find out where the best place is to do this, this, this, and this. We see this a little bit, but it's not as well developed as—and the land grants can clearly do that.

Final question, you asked, Is there anything about the administration's strategy that's an issue or a problem? I don't think, substantively, there is. I think the issue that we've raised is more of a process issue, "Is somebody going to be in charge? Where will the real leadership be? Who's going to knock heads, so to speak, to make sure that things get done?" And, there, I think that the jury is still out. But, I think their heart is in the right place. Their public statement's in the right place. And, to date, just from what I saw up here, I think that the implementation is in the right place.

Senator CASEY. Do you have—I'm sorry. Go ahead.

Ms. BERTINI. Might I just add two other quick things. One is, again, on how—where the money is spent with the universities, and especially with the concern that Dan points out, that, since the universities are—funding is so tight right now, I would plead to be

sure that the way the funds are used are not just to fill in the gaps, but rather to make sure that that funding is going through the university to support the need in the developing country; otherwise, we're not going to get anywhere. That's one.

Two is, this whole concept that's in your bill, about using U.S. expertise through universities, can be used in other creative way—that same concept can be used in other creative ways, as well, and I want to mention two.

One is, for instance, the School Nutrition Association, here in the United States, has the Global School—Global Child Nutrition Institute—I think I'm saying the right thing, but I can correct it later—and what they do is use the capacity from American school lunch program administrators to help train people in Eastern Europe and in developing countries on how to organize school lunches. Now, that's not a university, obviously, but they've done it now, and I think in almost 50 countries. And there have been—a lot of countries have been using their own resources, that have developed school feeding programs. So, it's a great way to use U.S. capacity for something that ends up being sustainable over the long term elsewhere, based on the request of the country wanting the program.

And then, a second thing is a student-type-based program. And at Auburn University, they've started, a few years ago, a program, Students Against Hunger. And they've got programs now, in many of the land grant universities around the country, where they're working to try to raise awareness about hunger in the developing world, in American universities, and then transfer some of their own knowledge through work in developing countries.

So, there are a lot of different ways, I think, to use that same concept that you've put in this bill to take advantage of expertise.

Mr. GLICKMAN. And that's where things like this can make the difference, that we didn't have 10, 15, or 20 years ago.

Senator CASEY. The technology, yes.

Well, thanks very much. I know we have to go, but I want to do at least three things.

One is, I want to correct the record. I think my first reference to Dr. Shah was "Director Shah" and it should have been "Administrator Shah." So, just so we get his title right.

Second, I want to thank both of you for your work on this. We'll need to keep calling on you and asking you questions.

And I want to, Mr. Chairman, submit my statement for the record and thank you, for your work on this.

[The prepared statement of Senator Casey can be found in "Additional Material Submitted for the Record."]

Senator CASEY. And we've got some work to do to get the bill passed, but I know we're—our offices have been spending a good deal of time, and the two of us have, so we're going to continue to push it forward.

Thanks, Senator.

Senator LUGAR. Well, thank you very much, Senator Casey. And we're grateful to you and to your office.

And we're especially grateful to our distinguished witnesses today for coming to grips with, I think, the basic problems of our

legislation and the initiative of the State Department. And I am hopeful this will supercharge our efforts as we move ahead.

Thank you so much.

Mr. GLICKMAN. Thank you.

Ms. BERTINI. Thank you.

Senator LUGAR. The hearing is adjourned.

[Whereupon, at 1:05 p.m., the hearing was adjourned.]

ADDITIONAL MATERIAL SUBMITTED FOR THE RECORD

PREPARED STATEMENT OF HON. ROBERT P. CASEY, JR. U.S. SENATOR FROM PENNSYLVANIA

Today, every five seconds a child somewhere in the world will die from starvation. While the United States has historically played an important role in addressing hunger internationally, this simple fact should serve as a galvanizing call to action. The 2008 global food crisis brought attention to the fact that emergency food assistance was not enough and that donors and recipient countries needed to work together to address the systemic problems that lead to food insecurity.

The Obama administration has rightly prioritized food security and political support in the Senate is growing through the Lugar-Casey Global Food Security Act. Creating an environment where local farmers can produce for themselves and their communities as well as easily trade and get their goods to market is the key to fundamentally changing this ongoing crisis.

With the host of competing priorities for U.S. attention, I believe there are two reasons why food security matters.

First, this is a humanitarian crisis of immense proportions that we can go a long ways toward solving. As one of the richest countries in the world, we have a moral obligation to help when we can. This crisis is solvable with a combination of assistance and emphasis on providing small farmers around the world with the know-how, technology and means to provide for themselves.

Second, global hunger is indeed a national security issue. Instability arising from conflict over access to food is a documented and real problem. The 2008 food crisis unfortunately brought this into acute focus. We saw it in Somalia, where struggles to gain access to food have enveloped population centers in violence. We have seen it in Egypt as citizen's rioted for access to bread. And we have seen it in Haiti where hospital beds filled in 2008 with those injured during food riots. Increased instability in any of these countries has a direct impact on U.S. national security interests.

The root causes of this perfect storm of a crisis are by now well known, but worth recounting. In 2008, food demand was driven higher due to expanding populations and rising incomes. More cereals were needed to feed livestock for the production of meat and dairy products and to fill rising demand for biofuels. High oil prices combined with weak harvests, and rising global demand created a scramble for resources. Wheat prices more than doubled and rice prices more than tripled between January and May 2008. Twenty-eight countries imposed export bans on their crops, driving up commodity prices and limiting supply. This led to political unrest across the globe, concentrated among developing countries with large, food insecure poor urban populations.

While this was indeed a perfect storm of events, the underlying issues that created the crisis continue. In sub-Saharan Africa, for example, 80 to 90 percent of all cereal prices remain 25 percent higher than they were before the crisis began. In many Asian, Latin American, and Caribbean countries prices are still more than 25 percent higher than in the precrisis period. In the wake of the economic crisis, the World Food Programme began receiving requests for assistance even from countries that previously were able to provide for themselves.

The peripheral effects of food insecurity are considerable. High rates of hunger are shown to be linked to gender inequality, especially in terms of education and literacy, which also negatively affects the rate of child malnutrition. It is estimated that 60 percent of the world's chronically hungry are women and girls, 20 percent of which are children under 5.

Hunger in a country like Pakistan poses both a humanitarian and security issue. Last year, over 77 million people in Pakistan were considered "food insecure" by the World Food Programme. That is nearly half of their population. As Pakistan's military is conducts continued operations against extremist forces, those numbers could

increase. Hunger and competition for food can lead to further instability and potentially undermine the country's government leadership at a very critical time.

The global food crisis is still a serious problem, and despite the efforts of the administration, we still have a lot of catching up to do in order to properly respond. According to the Center for Strategic and International Studies, U.S. commitment to agricultural development has declined in recent years, though emergency food assistance continues at robust levels. Worldwide, the share of agriculture in development assistance has fallen from a high of 13 percent in 1985 to under 4 percent between 2002 and 2007. U.S. development assistance to African agriculture fell from its peak of about \$500 million in 1988 to less than \$100 million in 2006.

USAID has been hardest hit during this period. The Agency once considered agricultural expertise to be a core strength, but today operates under diminished capacity. As recently as 1990, USAID employed 181 agricultural specialists; in 2009 it employed just 22. In the 1970s, the U.S. Government sponsored around 20,000 annual scholarships for future leadership in agriculture, engineering, and related fields; today, that number has fallen to less than 900.

We simply don't currently have the adequate assistance infrastructure government to respond to this crisis, but the administration making progress toward building this capability.

The administration's Global Hunger and Food Security Initiative (GHFSI), is a comprehensive approach to food security based on country- and community-led planning and collaboration. I welcome this opportunity to hear directly from the administration on this effort. While I know that the administration has assiduously worked to coordinate an interagency process and selection criteria for country participation, questions remain in terms of overall leadership of the initiative as well as its plans to develop internal expertise and capacity that is sustainable over the long term.

In the Senate, we have also worked to bring attention to the world's hungry. Senator Lugar, a respected leader in this field for decades, and I joined to introduce the Global Food Security Act. Our bill has three major objectives.

First, this bill will provide for enhanced coordination within the U.S. Government so that USAID, the Agriculture Department, and other involved entities are not working at cross-purposes. We do that by establishing a new position, the Special Coordinator for Food Security who would forge a comprehensive food security strategy.

Second, it would expand U.S. investment in the agricultural productivity of developing nations, so that nations facing escalating food prices can rely less on emergency food assistance and instead take the steps to expand their own crop production. Every dollar invested in agricultural research and development generates 9 dollars' worth of food in the developing world. This provision can serve as the vehicle for the President's pledge to more than double the U.S. agricultural development assistance.

Third, it would modernize our system of emergency food assistance so that it is more flexible and can provide aid on short notice. We do that by authorizing a new \$500 million fund for U.S. emergency food assistance when appropriate.

This is one of those rare occasions where a serious crisis was greeted by a substantial administration response as well as bipartisan collaboration in the Senate and House. I am encouraged that there has been positive movement toward fundamentally changing how we look at food security issues. Such support, however, is not permanent and we should enact this multiyear authorization bill to ensure that such congressional support exists in the future. We cannot wait for another massive food crisis before taking action on this legislation. This is the right thing to do and will ultimately enhance the security of the United States and our allies.

RESPONSES OF RAJIV SHAH TO QUESTIONS SUBMITTED BY
SENATOR CHRISTOPHER J. DODD

Question. USAID has lost more and more control over food aid, while USDA's control over food aid has grown. I strongly believe that this entire portfolio should be brought back under the full and total control of USAID. Food aid, at its core, is a development issue and America's development experts should be in charge of crafting and implementing this policy. In my view one of the principle problems with our food aid policy is that it's been taken away from USAID—this is a troubling trend in other development areas as well. What is the administration's plan to move food aid back within the purview of USAID?

Answer. The distribution of food aid responsibilities between USAID and USDA is based on legislation such as the Food, Conservation, and Energy Act of 2008 and the Food for Peace Act. On an annual basis, USAID manages approximately 85 percent of the total tonnage of U.S. international food aid assistance. We are proud of our relationship with USDA and under the President's Global Hunger and Food Security Initiative we will continue to work closely with them to ensure maximum humanitarian and developmental impact from our food aid resources.

Question. Transportation of food aid to target regions has represented as much as 60 percent of U.S. food aid budgets in recent years. Is the administration planning to reevaluate the costly and often counterproductive practice of transporting food aid from half a world away rather than from nearby regions?

Answer. While U.S.-grown food will continue to play the primary role in meeting global emergency food needs, the administration requested and received funding in FY 2010 in the International Disaster Assistance (IDA) account for emergency food assistance interventions such as local and regional procurement, cash voucher and cash transfers, which all allow for greater flexibility and timeliness in delivering food assistance. The administration is once again requesting this IDA funding in FY 2011.

Question. Children, particularly toddlers and infants, suffering from acute malnutrition require nutrients that aren't often found in U.S.-sourced food aid. What percentage of U.S. food aid is nutrient fortified? Have USAID and the Department of Agriculture integrated ready-to-use-foods, which are highly nutritious, transportable and can be locally sourced, into our overall food aid strategy?

Answer. While the percentage varies from year to year, in FY 2009 approximately 25 percent of USAID food aid and USDA food aid shipped abroad was nutrient fortified. USAID has developed a ready-to-use meal replacement and is in the process of a trial procurement including an efficacy study for its prepositioning overseas. USAID is also working closely with USDA on specifications for a ready-to-use supplementary food that can be used for the recuperation of moderately malnourished children.

Question. How has climate change impacted the frequency of famine and episodes of food insecurity? What programs exist to help at-risk communities and regions adjust to changing environments ahead of potentially disastrous changes?

Answer. No famines or specific food crises can be directly attributed to climate change. The expected impacts of climate change over time, however, will likely increase stress on poor communities which are the least able to deal with and adapt to the changes.

Programs to assist communities in mitigating the impact of climate change are currently being designed and scaled up to meet needs. For example, USAID's Famine Early Warning Systems Network, in partnership with the Inter-Governmental Authority on Development Climate Prediction and Application Center (ICPAC) in East Africa, produces seasonal food security early warning and climate information products. In Uganda and Kenya, these reports have been used to advise farmers on planting of early maturing and drought resistant crops, as well as maintenance of cattle watering points.

In Ethiopia, USAID has supported the diversification of drought tolerant crops, such as sweet potato and cassava. Seeds are distributed to farmers in areas that are predicted to have below normal rainy seasons. To mitigate future loss of crops to drought, this program is also introducing additional options to farmers currently planting one of the drought resistant options (e.g., sweet potato is promoted to those already planting cassava) because increasing agro-biodiversity reduces risk to climate change, both for food security and livelihoods.

WALL STREET JOURNAL ARTICLE SUBMITTED BY SENATOR RICHARD G. LUGAR

[From The Wall Street Journal, Apr. 22, 2010]

A NEW INITIATIVE TO FEED THE WORLD

Over the last few decades the developed world lost interest in agricultural development. Now's the time for change.

(By Timothy Geithner and Bill Gates)

A year ago the world came together in a powerful and coordinated effort to restore the stability of our global economy. Thanks to the actions taken then, the world is beginning to recover from the most severe economic crisis since the Great Depression.

But as we work to build a stronger, more stable and balanced global economy, we must renew our commitment to tackle global hunger and poverty. Because a world where more than one billion people suffer from hunger is not a strong or stable world. A world where more than two billion people in rural areas struggle to secure a livelihood is not a balanced one.

Today, the United States, Canada, Spain, South Korea and the Bill & Melinda Gates Foundation are making a commitment to fight the threat of global food insecurity. Together we are launching the Global Agriculture and Food Security Program, a new fund to help the world's poorest farmers grow more food and earn more than they do now so they can lift themselves out of hunger and poverty.

A steep rise in food prices in 2008 and the recent global economic crisis have pushed the number of hungry people in the world to more than one billion. As the world's population increases in the coming years and as changes in the climate create water shortages that destroy crops, the number of people without adequate access to food is likely to increase. As that happens, small farmers and people living in poverty will need the most help. They are the ones who cannot afford to grow crops or buy food when seed prices double. They are also the ones who face shortages when rainfall patterns change and reduce the amount of available water.

We should not be facing this challenge today. In the 1960s and '70s the world understood that agricultural development was an indispensable tool in alleviating hunger, reducing poverty, and driving economic growth. A combination of new, high-yielding crops developed by scientists such as Norman Borlaug and sustained investments from the U.S. and other countries helped save hundreds of millions of people from starvation in India, Mexico and elsewhere.

Yet during the past three decades the world's interest in agriculture waned. Donor nations moved on to focus on other issues. The result is that there has been a sharp drop in aid for agriculture. In 1979, nearly 18% of all official development assistance world-wide went to agriculture. In 2008, about 5% did. Private investment in agriculture in Africa is insignificant. Today, many Africans face food shortages in part because the average African farmer produces half the amount of crops per acre of an Indian farmer, one-fourth that of a Chinese farmer, and just one-fifth that of an American farmer.

Proposed last year by the G-8 and G-20, the new Global Agriculture and Food Security Program hosted by the World Bank will provide financing to low-income countries with high levels of food insecurity. It will partner with countries that have developed sound agricultural plans and that are already using their own resources to invest in the most effective ways to boost crop production. The fund's public-sector account will invest in infrastructure that will link farmers to markets, promote sustainable water-use management, and increase access to better seeds and technologies.

But aid alone cannot unleash the potential of agriculture. Small farms need greater private-sector investments than they get now. That is why this fund will have a private-sector account that provides financing to increase the commercial potential of small and medium size farms and other agribusinesses.

Some poor countries are already taking steps to increase agriculture productivity. Rwanda, for example, has increased its investment in agriculture 30% from 2007 to 2009 and recently reported that its agricultural production was up 15% over that period.

The fund will build on this and other progress that is underway. It will provide a transparent way for donors to implement their commitment to agriculture and a predictable source of funding for developing countries. And it will provide recipient countries and civil organizations, as well as donors, with a strong voice in determining where investments are made.

Thanks to the leadership of President Barack Obama, Secretary of State Hillary Clinton and Sen. Richard Lugar (R., Ind.), the announcement we will make today will be a significant step forward: our commitments total nearly \$900 million from now until 2012.

But creating this fund is only a first step. Last year, several wealthy nations pledged at least \$22 billion over the next three years to agricultural development. Now they can join this fund to begin making good on their promises. Farmers and their families are in this for the long haul; we must be, too.

Working together, we have an opportunity to create a world free of hunger and extreme poverty. Rural communities have waited too long for their farms to flourish. This time, as we return with renewed vigor and commitment to boosting agricultural development, let's sustain our focus until the job is done. Let's make history by learning from it.

LETTER FROM THE ASSOCIATION OF PUBLIC AND LAND-GRANT UNIVERSITIES

APRIL 22, 2010.

Hon. RICHARD G. LUGAR,
*U.S. Senate, Hart Senate Office Building,
Washington, DC.*

Hon. ROBERT P. CASEY,
*U.S. Senate, Russell Senate Office Building,
Washington, DC.*

DEAR SENATORS LUGAR AND CASEY: The Association of Public and Land-grant Universities strongly endorses your continued efforts to pass S.384, the Global Food Security Act. We are greatly encouraged that you are working collaboratively with the House sponsor, Rep. McCollum, and that the Administration is working with you to bring this bill to the President's desk this year. Many of our universities have already contacted their Senators asking them to support S.384. They will continue to do so.

We believe S.384, particularly Title III, will ensure that U.S. colleges and universities will be an important part of advancing key foreign policy objectives of reducing world hunger by increasing agricultural productivity. Institutions of higher education in the U.S. have historically played a critical role in international development, particularly in agriculture. They are essential in building the human and institutional capacity in developing countries necessary for sustained economic growth. Unfortunately, over the past 20 years, the U.S. foreign assistance strategy has under-invested in agriculture and under leveraged the resources of colleges and universities to help address critical global development problems. Your bill is a major step in correcting these practices.

While a number of factors were responsible for the acute global food crisis of two years ago, one of the major causes was a decline in agricultural productivity in developing countries. S.384 will commit the U.S. to increased investment in agriculture, which accounts for as much as 70% of the GDP in many developing countries, in part by engaging U.S. colleges and universities in collaboration with higher education institutions in developing countries to build the research, training, and extension capacities. This is consistent with U.S. foreign policy interests, and enhances the overall objectives of the legislation.

Again, thank you very much for your important legislation. We look forward to continuing to work with you for its enactment.

Cordially,

PETER MCPHERSON,
President.

LETTER FROM INTERNATIONAL RELIEF AND DEVELOPMENT ORGANIZATIONS

APRIL 21, 2010.

Senator RICHARD G. LUGAR,
Hart Senate Office Building,
Washington, DC.

Senator ROBERT P. CASEY, Jr.,
Russell Senate Office Building,
Washington, DC.

Senator RICHARD DURBIN,
Hart Senate Office Building,
Washington, DC.

DEAR SENATOR LUGAR, SENATOR CASEY, AND SENATOR DURBIN: The undersigned international relief and development organizations applaud your leadership in promoting global food security with the introduction of the Global Food Security Act (S.384). We have long fought for the underlying principles driving the legislation and are pleased that the walls of Congress are beginning to echo our cries.

Solutions are needed to address the estimated 1 billion people that suffer from chronic food insecurity. Lasting improvements in food security can be reliably ensured with adequate financial and technical resources for sustainable agricultural development. Studies show that investments in agriculture produce the highest returns in rural poverty alleviation and increased food security. In addition, when emergency food assistance is necessary, aid must be structured in a way that vulnerable families do not have to wait four to six months for U.S. food shipments to arrive.

The bill not only addresses the emergency needs of those suffering from the ongoing food crisis, but offers long term food security solutions by investing in agriculture and rural development. We are heartened by the legislation's recognition of the critical role that women throughout the world play in agriculture and family nutrition. By providing assistance in forms that benefit the women working on family farms using local resources, your bill promises efficient and effective investment in food production and well-being for those who need it most. In addition, we welcome the introduction of a Special Coordinator for Global Food Security and support its integration into a modernized foreign assistance strategy.

We look forward to working with you on this important issue and, on behalf of hungry families around the world; we thank you for your leadership.

Sincerely,

ACDI/VOCA; Adventist Development and Relief Agency International; The Alliance to End Hunger; Bread for the World; CARE; The Christian Reformed World Relief Committee; Congressional Hunger Center; ECHO; Food for the Hungry; Foods Resource Bank; Friends of the World Food Program; Heifer International; Helen Keller International; The Hunger Project; International Center for Research on Women; International Medical Corps; Lutheran World Relief; ONE; Oxfam; Partnership to Cut Hunger and Poverty in Africa; Relief International; Save the Children; Women Organizing for Change in Agriculture & NRM; Women Thrive Worldwide; World Cocoa Foundation; World Relief; World Wildlife Fund.

Farm Futures

Bringing Agriculture Back to U.S. Foreign Policy

Catherine Bertini and Dan Glickman

IT IS NOT easy for Americans to understand the starvation that afflicts much of the developing world. Families in the poorest parts of Africa and Asia spend up to 80 percent of their incomes on food; for the average U.S. household, that would mean an annual grocery bill of \$40,000. Yes, there are hungry Americans in the millions, and the U.S. food-stamp program is operating at record levels. But hunger in the United States does not put tens of thousands of infants into hospitals and require them to be hooked up to feeding tubes. Nor does it lead to stunting, wasting, and debilitating forms of malnutrition, such as kwashiorkor and marasmus.

Yet even if Americans strain to comprehend the depth of hunger that plagues much of Africa and Asia, they do care about it. They know that chronic hunger among Afghans, Congolese, or North Koreans can pose a threat to their national security. Surveys conducted by the Pew Research Center have consistently revealed that Americans want to make ending hunger and poverty a priority for U.S. foreign policy. A recent survey conducted by the Chicago Council on Global Affairs showed that the American public feels

CATHERINE BERTINI was Executive Director of the UN World Food Program from 1992 to 2002. DAN GLICKMAN was U.S. Secretary of Agriculture from 1995 to 2001. They are Co-Chairs of the Chicago Council on Global Affairs' Global Agricultural Development Project, from whose final report this essay is drawn. The project's full report is available online at www.thechicagocouncil.org/globalagdevelopment.

Catherine Bertini and Dan Glickman

aid to poor farmers overseas should play a more prominent role than any other form of U.S. development assistance.

Sadly, as global food emergencies have grown worse, the United States has been playing defense, desperately pouring \$2.1 billion into food aid in 2008 to cope with a global food crisis that led to riots in more than 30 countries. Last year, a potent mix of high Asian demand, persistent drought in Australia, commodities speculation, high energy prices, and the diversion of crops to biofuels led to the greatest run-up in grain prices in decades. And although most food prices have since declined somewhat, many of the world's poor are still going hungry.

With the Obama administration struggling to address an economic crisis at home, the question arises, how much money will be left for the world's hungry? With the growing intensity of domestic economic distress, some Americans may have little interest in even considering that question. Yet the consequences of neglect would be immense. The Obama administration should make agricultural development its number one priority for foreign aid and actively enlist support from other donors and the International Monetary Fund and the World Bank.

A NEW APPROACH

THE GREATEST successes in economic development in history have begun with agriculture: the agrarian revolutions in England and France, which set the stage for the Industrial Revolution; the green revolution in South Asia in the 1960s and 1970s; and the mass movement of rural Chinese farmers out of poverty in the 1980s under Deng Xiaoping. All allowed farming communities to overcome hunger that had limited worker productivity, to increase rural income, to provide locally for the food needs of growing populations, and to improve school attendance.

The traditional approach to development—attacking poverty and assuming that rising incomes will take care of hunger—has simply not worked well enough. Developing countries must take the battle to where the problem lives: rural farming communities that often have little connection to markets, even domestic ones, and, as a result, have not profited from traditional investments in

Farm Futures

development. Roughly 80 percent of the hungry in Africa live on small farms. In these communities, the farming is done largely by women, who have traditionally received meager support for farm inputs, few loans to buy equipment, and little education in better farming methods. Yet worldwide, women own barely two percent of the land and receive only five percent of agricultural-extension services. Targeting and adapting agricultural development assistance to female farmers, who also are primarily responsible for the nutrition of their families, is one of the most important and most neglected ways to increase rural incomes and food availability.

Meanwhile, as the West focuses on climate change and debates carbon credits and limits on industrial emissions, massive damage is being done to the environment in developing countries, where a lack of agricultural technology and infrastructure perpetuates bad farming practices. Pressure on water and land resources has even become an element in regional political conflicts, as in Darfur.

Fortunately, Africa has significant untapped land resources and fertile soil that could be developed responsibly. More land could be brought into production if farmers moved away from rain-fed, low-technology agriculture, which is vulnerable to the vagaries of the weather, and if inputs such as improved seeds and fertilizers were delivered to small farmers. What might all this cost? Some nongovernmental organizations (NGOs) and academics label current U.S. food donations a “Band-Aid.” Well, if the Band-Aid alone is costing billions, what would it cost to cure the disease? The UN’s Food and Agriculture Organization (FAO) recently set the price tag at a frightening \$30 billion in additional annual investments globally, almost double the entire foreign-aid budget of the United States.

That level of investment is not likely needed—and anyway, developing countries could not likely absorb it immediately if it were provided. But regardless, fear of the eventual costs should not be the primary factor in determining whether to press ahead. With the number of people living with hunger now rapidly approaching one billion, it is time for the United States to show renewed leadership—and once again be seen as an innovator. Putting agriculture back at the center of U.S. development aid should be a key element in a foreign policy that reintroduces the United States to the world.

Catherine Bertini and Dan Glickman

. . . PAVED WITH GOOD INTENTIONS

HOW DID food once again become such a serious political issue? Some observers have rightly pointed out that the current global strain on food supplies is, in fact, very familiar. During the last energy crisis, in the mid-1970s, a similar price surge in food occurred; President Richard Nixon even cut off exports of soybeans to Japan. The Saudis stepped in with large cash donations to the UN food agencies, and world leaders solemnly assembled for a food summit in Rome, just as they did last June.

There were promises of reform in the mid-1970s—just as there are today. But as soon as price pressures subsided, as they are doing again now, little changed, and agriculture quickly dropped down the list of development priorities. Because global food prices were declining, the global community overlooked the fact that hunger-related diseases steadily held their place as the number one threat to health globally, claiming more lives than AIDS, malaria, and tuberculosis combined.

U.S. policy has been to treat the symptoms of hunger with food aid. Food for Peace and other such U.S. programs have carried out the single greatest humanitarian effort in history, saving tens of millions of lives and supporting child nutrition and education for the world's poor. But it is time to address the underlying causes of the disease rather than treating just the symptoms.

Some analysts point out that, ironically, the very institutions that have downplayed the importance of agriculture for much of the last few decades—the World Bank, the World Trade Organization, the U.S. Agency for International Development (USAID), and the major NGOs—are now lining up, hats in hands, seeking donor funds for agricultural development to fix problems that their neglect helped create. But assigning blame is not constructive. Besides, there were advocates in all these agencies who saw the threat even before the numbers of hungry started to climb again in the mid-1990s.

Still, even a cursory analysis of how major donors have funded development will show that farming has long taken a back seat to more politically fashionable projects. This neglect of agriculture was reinforced by the success of the green revolution and by relatively low global grain prices, which made agricultural development seem a lower priority.

Farm Futures

In fact, the United States has been feeding needy people abroad ever since a U.S. food shipment was first dispatched to help Venezuelan earthquake victims nearly two centuries ago. And it was the United States that created the concept of modern development assistance after World War II. After spending hundreds of billions of dollars on foreign aid, any American taxpayer—especially in this economy—has the right to ask what happened to the aid sent in the past. Some of it was no doubt wasted or even stolen, but that is far from the whole explanation. The broader question remains: If the ranks of the hungry and malnourished have once again begun to swell, just what went wrong?

First, Washington has invested too little money and talent in combating the root causes of hunger. U.S. aid to agriculture in Africa has dropped 85 percent since the 1980s.

Although the United States has led the world in food aid for Africans, it has spent 20 times as much on food aid as on helping Africans better feed themselves. Since 1980, USAID's staff has been cut nearly by half and agricultural specialists have been virtually eliminated. And in 1993, the House Select Committee on Hunger was disbanded, removing an important legislative venue for highlighting the social and political impact of hunger and malnutrition.

Washington has invested too little money and talent in combating the root causes of hunger.

In real 2008 dollars, U.S. investment in agricultural development abroad dropped from \$400 million a year in the 1980s to only \$60 million in 2006. This occurred despite the fact that there was virtually no improvement in grain yields in Africa during that time. Washington was not alone in reducing funding. Other donors—and even the developing countries' governments themselves—all followed suit in neglecting agriculture. When funds were provided for agricultural development, donors often focused on stimulating investment, but hunger and malnutrition are most prevalent in rural areas where no one would likely invest to begin with.

In the 1990s, China, now the world's largest food producer, boosted its agricultural-research expenditures by 82 percent, and the developed world collectively spent 36 percent more in those years, even when food prices were historically low. By contrast, in Africa, the increase

Catherine Bertini and Dan Glickman

in agricultural-research funding was a mere 7 percent during this period. Exacerbating the situation was the fact that the United States cut its aid for agricultural research in Africa by 75 percent between 1981 and 2000. Between 1980 and 2003, total global official aid to developing countries for agricultural research fell by a staggering 64 percent, from \$5.3 billion to just \$1.9 billion in 1999 dollars.

What has distorted the picture even more is that the lion's share of public and private investment in agricultural research has been spent on temperate-climate crops, such as those grown in Europe, Japan, and North America. Much of that research is of marginal use in tropical and subtropical Africa. It has done little to help Africans cope with the growing impact that climate change and variations in rainfall have had on agricultural systems already vulnerable to cycles of drought.

Second, aid efforts have been hampered by developed countries' shortsighted trade and economic policies. The European Union, Japan, and the United States have continued trade policies and crop subsidies that have made it impossible for poor African and Asian farmers to compete. Biofuel programs—in some cases because investment came before the right technologies were in place—contributed to the historic global rise in grain prices in 2007 and 2008, as cropland moved from food production to producing raw materials for conversion into fuels. Military and other commercial interests, in themselves legitimate, have also intruded on foreign aid, reducing and distorting the effects of assistance. The Bumpers Amendment, which precludes funding agricultural projects that help developing countries produce crops that might compete with U.S. farmers, has further hampered aid efforts.

Third, not enough was done to keep multilateral institutions such as the development banks and the FAO focused effectively on hunger. Although the World Bank neglected agriculture for decades, it is now mending its ways and doubling its agricultural investment. But the FAO, despite some good work on issues such as biotechnology and technical standards for trade, has failed to deliver many successful programs and has developed a reputation with donors for poor management. A recent independent evaluation of the FAO devoted most of its 400 pages to cataloging the organization's administrative shortcomings. The U.S. State Department has been on the losing end of

Farm Futures

a decades-long battle between donors and developing countries over control of the agency, with the FAO's management exploiting the friction and often casting the United States in the role of a rich bully.

Finally, aid to end hunger has been distorted by the imposition of Western political views. In the 1980s, the political right pushed hard to reduce the role of the public sector in supplying development aid, arguing that unfettered private markets always do a better job. But this premise ignores the fact that markets in the world's most successful agricultural economies have often been anything but free of public intervention and government subsidies. Why should Africa be expected to be different?

The UN Development Program has calculated that the largest movement of people out of poverty in history took place in China in the mid-1980s, when Deng introduced a mix of free-market economics and subsidies for rural farmers. Democratic and increasingly free-market India, in contrast, continues to struggle with millions of chronically malnourished people, even though it has the largest domestic food-aid program in the world. In the United States and Europe, the necessity of some subsidies in agriculture, especially for land and water conservation, is widely accepted. No one has found a way to make the United States' own small farms competitive in a free market without public subsidies of one kind or another. Nonetheless, for decades, the World Bank and many Western aid agencies preached a rather purist version of free-market capitalism, without subsidies, as the solution to the hunger problems of developing countries. To those countries' government officials, many educated in the United States and Europe, it must have sounded like a treatise on chastity penned by Casanova.

On the left, agricultural-development aid has been hampered by opposition to agricultural modernization and mechanization from some environmentalists and NGOs. A few of these opponents exhibit a nearly Luddite-like aversion to modern agricultural innovation, especially with regard to genetically modified (GM) crops. Worries about using excessive water or chemicals, which made sense when it came to the countries of the old green revolution, simply do not in the context of nonirrigated Africa. Rather than adapting development approaches to local conditions, both the right and the left have seemed wedded to a one-size-fits-all ideological approach.

Catherine Bertini and Dan Glickman

The United States is generally seen as the major proponent of agricultural approaches that reflect the ideology of the right; the continental European donors are most often seen as the advocates of the left. (The United Kingdom remains apart, a mix of the two.) One upside of the latest global food crisis has been a willingness to begin to move away from self-defeating rigidities on both ends of the political spectrum; food riots have a way of concentrating minds and opening them up to new possibilities.

CHANGE AT HOME

AFTER THE 2007–8 global surge in food prices led to widespread protests, UN and donor task forces began to multiply. Interestingly, much of the thinking they have produced is not all that new. And it is surprisingly consistent: calls for liberalizing agricultural trade, scaling back subsidies to farmers in the developed world, increasing investment in agricultural research, and providing education to poor farmers. Indeed, the basic formula for a solution to hunger and rural poverty in Africa and other developing regions has not changed that much, although some new elements are clearly needed.

If the United States is to lead this effort, it must first clean up its own house. It should strengthen and coordinate its aid efforts at the executive-branch level through the National Security Council, giving much increased attention to agriculture, hunger, and malnutrition as part of an overall “soft power” approach. Aid must again play a bigger part in U.S. diplomacy, and State Department staffers must become more actively engaged.

Washington should also strengthen the leadership role of USAID. The administrator of USAID should head the Millennium Challenge Corporation and the President’s Emergency Plan for AIDS Relief. And agriculture-focused staff at USAID and the U.S. Department of Agriculture should be increased, and the Peace Corps should create a special cadre devoted to agricultural development.

Congress should pass the 2008 Lugar-Casey Global Food Security Act as part of a drive to boost funds for agricultural research, education, and extension, with particular support for a second green revolution, this one in Africa. The inherently inefficient “monetization” of food aid,

Farm Futures

in which donated U.S. food is sold locally to generate development funds, should be scaled back. The Bumpers Amendment should also be scaled back, especially as it relates to developing countries, and the cost of cargo preference should be shifted within the government, thus freeing up resources for agricultural development and emergency food aid. The House Select Committee on Hunger should be reestablished, so that there is a focal point in Congress for debate and oversight over global hunger and malnutrition.

In the field, the United States needs to adopt different tactics in designing both agricultural-assistance projects and food-aid operations. It should strengthen research, training, and other links between the U.S. land-grant universities and historically black colleges in the United States and their counterparts in the developing world and encourage them to work on specific issues, especially communications technology in agricultural-extension work. It should better address the impact of drought and climate change on small farmers, with measures such as basic crop insurance and the innovative famine-insurance proposal based on rainfall indicators devised by the World Food Program and the World Bank. It should jettison preconceived ideological approaches to aid and show more flexibility on issues such as subsidies and GM foods. It should coordinate U.S. aid better at the country level, both internally and with international institutions and NGOs. And it should purchase more food locally to stimulate market development in sub-Saharan Africa and South Asia.

Washington also needs to start listening better to the Africans and Asians in need. This means better engaging with rural communities, and especially women, in designing local agricultural projects; partnering with developing-country governments, NGOs, and the private sector to help shape agricultural strategies; and cooperating more with regional entities in Africa, such as the New Partnership for Africa's Development (NEPAD) and its Comprehensive Africa Agriculture Development Program, the Southern African Development Community, and the African Union. The Alliance for a Green Revolution in Africa is becoming a vehicle for agricultural development partnerships between donors,

If the United States is to lead the effort, it must first clean up its own house.

Catherine Bertini and Dan Glickman

developed-country institutions, and African public and private institutions and is well placed to work with the United States in promoting agricultural education, adaptive research, and extension focused on smallholder agriculture. Above all, the United States must focus on the 400 million small farmers and their families in Africa who are most vulnerable to hunger, especially the women. Since eight out of ten farmers in Africa are women, and six out of ten in Asia are women, women's unique needs must be better addressed in all U.S. aid efforts.

There are other critical policy initiatives in agricultural development that the Obama administration is unlikely to be able to undertake on its own. Reform of the FAO is an obvious one, given the failure of reform efforts in the past. But the most essential one is reforming the global trade and subsidy policies that have unwittingly hurt poor farmers in the developing world. Any move in that direction, whether within the context of renewed World Trade Organization negotiations or not, will not be politically viable without the cooperation of the European Union, Japan, the Cairns Group of 19 agricultural exporting countries, and other major trading nations. Some unilateral trade and subsidy reforms are theoretically feasible, but U.S. farm groups will be reasonably skeptical of any concessions that are not balanced by greater market access abroad for their food exports.

THE NEXT GREEN REVOLUTION

THERE IS a widespread tendency to despair about hunger in Africa. But despite the rise in malnutrition rates on much of the continent, many countries have managed to feed booming populations on their own. The United States is now spending billions on food aid, but the actual tonnage delivered is at the lowest level since the Kennedy administration and is increasingly used for emergency situations, such as in Darfur. However precariously, most Africans are largely being fed with their own local production and with commercial imports.

Egypt, for example, has given priority to agricultural development and has managed to wean itself from food aid, even as its population has more than doubled since the 1970s. Throughout Africa, some progress is, in fact, being made even where there is not adequate support for the agricultural sector. Accordingly, there is little doubt

Farm Futures

that a U.S. foreign-aid policy refocused on agricultural production could yield significant results, especially if African leaders follow through on the promises they have made in NEPAD to raise domestic investment in the farming sector and to allocate at least ten percent of their own budgets to that sector.

Is it realistic to expect the United States and other donor countries—which have just pledged over \$3 trillion to prop up a teetering global financial structure—to suddenly pour even more funds into the task of ending global hunger? Will President Barack Obama be in a position to mount a massive aid campaign for the hungry poor in Africa and Asia when confronted with a huge, \$664 billion current account deficit and declining household wealth? Official development assistance from members of the Organization for Economic Cooperation and Development had already begun to decline before the global financial crisis, slipping from \$104 billion in 2006 to \$102 billion in 2007. And much of the apparent gains in development assistance in recent years have been in the form of debt forgiveness, which does little for the hungriest and poorest countries (which were never rich enough to acquire much debt).

To a degree, private megadonors, such as the Bill & Melinda Gates Foundation, are stepping in and making up the funding shortfalls. The Gates Foundation has made agriculture a priority, with new funding for seed development, agricultural extension and education, and market development. Along with the Rockefeller Foundation, the Gates Foundation is the principal supporter of the Alliance for a Green Revolution in Africa, which holds great promise. But the collapse in the global stock exchanges has spared few foundations, private donors, or universities. Even those donors with the best of intentions cannot give away money they do not have.

The bottom line is that the Gates Foundation and others will no doubt have a positive impact on agricultural development—especially as efforts to promote a second green revolution bear fruit. But private donors will never be able to do enough on their own, especially since some of the obstacles to ending hunger stem from misguided economic policies, both international and domestic, rather than a lack of donor funding. Even with these historic opportunities for successful public-private partnerships, an effective response to global hunger will also require new political commitments by governments.

Catherine Bertini and Dan Glickman

The global funding picture is, of course, not an encouraging one. But it is a mistake to think that the sheer size of the aid investment is the sole measure of success. Historically, by far the most effective U.S. initiative against world hunger, the promotion of the first green revolution, was a relatively inexpensive intervention, spurred at first by private donors, principally the Rockefeller and Ford Foundations. Progress is possible without investing all that much more in public funds.

The chance for the United States to help save millions of lives ought to be enough to justify giving top priority to food and agriculture in U.S. foreign aid, as well as enlisting the help of other G-8 members and new partners. But there are other clear benefits to the United States as well. The Bush administration's heavy funding of AIDS initiatives, such as the President's Emergency Plan for AIDS Relief, and its consistently taking the political lead on the issue of Darfur were seen by African leaders as a sign that the continent had finally found its rightful place on a U.S. president's agenda. Africa is one of the places that George W. Bush could visit today and still expect a hero's welcome. No doubt, even more will be expected of Obama.

Making foreign aid, especially to the hungry and poor, a central part of the National Security Council's mandate is logical for a new administration that seems to recognize the limits of force in global politics. Doing this would also mirror recent moves at the UN to break down the walls between debates on humanitarian issues and debates on political issues. Increasingly, in part because of the situation in Darfur, the UN Security Council has turned to humanitarian aid when confronting political problems.

A global initiative against hunger led by the United States would further enhance the United States' reputation in the developing world and be less likely to be seen as politically or ideologically motivated. Unlike a "war on terror," a "war on hunger" attracts few critics and can even help defuse domestic conflicts in areas that are already inherently unstable, such as the Democratic Republic of the Congo, Somalia, and Sudan. Meaningfully engaging the land-grant university system in the United States and the U.S. private sector as part of this initiative would no doubt strengthen them as well and even create export opportunities for U.S. goods and technology.

Farm Futures

Although there is the potential for conflict over a hunger initiative on the issue of introducing more GM crops, this conflict is more likely to be with Europeans than with Africans or Asians, both of whom are increasingly inclined to accept the technology. There will no doubt be NGOs, especially in Europe, that will see U.S. efforts on seed research and dissemination involving GM-crop technology as some secret plot to support Monsanto, but they are likely to be in the minority. The issue is not how such an initiative will be perceived in London but how it will be seen in Lusaka.

THE HAND THAT FEEDS

THE SPIKES in food prices last year brought down at least one government (in Haiti) and worried many others, prompting them to impose food-export restrictions and other counterproductive measures in order to support domestic agriculture. The link between food insecurity and politics is not always straightforward: widespread hunger does not inevitably have severe political consequences, and the modern state has shown a remarkable ability to suppress political dissent even under the most appalling economic conditions. Yet there is a connection.

The relationship between hunger and political instability is often subtler. For example, there is evidence that Islamic fundamentalists in Afghanistan and Pakistan are using free food to lure hungry students into madrasahs that preach hate and extremism. There is also evidence that the Taliban are successfully recruiting in areas of Afghanistan where agriculture is failing. Hunger can make the desperately poor willing to do the bidding of any hand that feeds them.

Most important, there is a compelling moral case for President Obama to move hunger and malnutrition to the top of his list of aid priorities. No mother anywhere should have to see hunger in the eyes of her child or trade away her future for a simple meal. Reaching out to those in need will do as much for the United States as for those it helps.❷

