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How to End Hunger

The devastating earthquake that destroyed Haiti's capital and may have claimed the lives of hundreds of thousands just a few short weeks ago brought a swift and global humanitarian response, but also exposed the continued vulnerability of a desperately poor nation to unexpected shocks that spread hunger and misery. Over the course of a troubled history, Haiti has suffered more blows than most, from the food price riots that toppled the government in late 2008 to frequent natural disasters. But far too many others in countries across Asia, Africa, the Caribbean, and beyond now hover just one earthquake, cyclone, conflict, or drought away from widespread hunger and acute malnutrition. For the more than one billion people on earth without enough to eat, and for the 80 percent of the world's population with no access to social safety nets, risk and volatility are the new normal. With climate and population pressures on food supply systems mounting, the world is entering an era when hunger solutions will be driven not only by compassion but also by pressing global peace and stability concerns.

Beyond the extreme poverty that unites them, the particular challenges and circumstances of the hungry vary widely. Strictly by the numbers, the face of hunger in the world today is most likely to be that of a smallholder farmer in rural Asia. If such a person were truly representative of all hungry everywhere, the solutions might be simpler. But the situation of those struggling daily without enough to eat is complex and their specific challenges often unique to gender, age, location, culture, and means of subsistence. The poor become hungry for many reasons, ranging from the disastrous combination of high prices and global recession to conflict, disease, marginalization, discrimination, bad governance, and natural disasters. The hungry are urban dwellers as well as rural smallholder farmers in Africa, Asia, the Caribbean, and elsewhere. They are often women, children, and others traditionally marginalized in societies. Their needs can vary by degree, duration, and condition, from the acute starvation of famine to the

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hidden hunger of micronutrient deficiency.[1] Among the hungry, pregnant and lactating women, small children, and those living with HIV/AIDS as well as other diseases have special nutritional requirements.

The challenges of the poor and hungry in Haiti and elsewhere must be at the forefront as the United States and others begin to implement bold new initiatives designed to advance and build on the momentum of last year's historic G-8 commitment to sustainable food security. Make no mistake: the battle against global hunger vulnerability is winnable. The risk paradigm that has long placed the burden of managing food uncertainty on the hungry poor can be transformed to build lasting resilience. Combined with strong national policy frameworks and essential farm trade and subsidy reforms through a successful Doha round of global trade negotiations, these initiatives can drive investments in food and agriculture. This transformation and these investments will be a victory for all nations, especially for small and medium enterprises and for women farmers across the world, both of which must serve as pillars of sustainable access to food.

Now is the Time

The world can and must act now to end hunger vulnerability. The stakes for the global community could not be higher or the cost of delay greater. In 2008, both the percentage and absolute number of hungry and malnourished on the planet rose for the first time ever. High prices have put food beyond the reach of many at a time of rising unemployment, dwindling remittances, and slowing exports. The world is at a tipping point, and we can either invest the energy and resources necessary to put the battle against hunger on a positive trajectory, or watch as a negative spiral of expanding misery and need grows ever more difficult to arrest and reverse.

Any delay would mean lost and shattered lives for the youngest and most vulnerable, and a future of poverty for their families, communities, and countries. Undernutrition contributes to more than one-third of child deaths worldwide.[2] In developing countries, roughly 3.5 percent of children under five suffer from the most severe form of malnutrition, and nearly 200 million children are chronically malnourished. The only way to avoid the worst is by responding early. Even a few months of inadequate nutrition can have long-term consequences, including irreversible physical and cognitive development impacts. As a 2008 *Lancet* series found, the key to reducing undernutrition is to focus effective interventions on children less than two years old. Acting now can also avoid higher economic and human costs down the road.[3] A study by the World Food Programme (WFP) and the UN Economic Commission for Latin America and the Caribbean estimated that the cost of hunger amounts to as much as 11 percent of gross domestic product (GDP) in some countries.[4]

Delay would allow risks and challenges which could be managed now to grow beyond the international community's capacity to respond. Hunger vulnerability is rising rapidly as the populations of the most food insecure regions of the world continue to grow and climate pressures intensify. Many developing countries across Africa and elsewhere are already struggling to cope with their current climate, and further shocks could mean significant economic setbacks.[5] According to the UN Office for the Coordination of Humanitarian Affairs, around 70 percent of disasters are now climate-related—up from 50 percent two decades ago.[6] These disasters—floods, droughts, mudslides, and hurricanes—extract a huge humanitarian toll, leaving farmland destroyed and people desperate for food. In the last decade, 2.4 billion people were affected by climate-related disasters, compared to 1.7 billion in the previous decade. And almost without exception, the countries struggling to feed their people are those most at risk from advancing climate change. Staple crops like maize and rice are highly susceptible to rising temperatures and extreme seasons.[7] Widespread crop yield declines in Africa could leave hundreds of millions without the ability to produce or purchase sufficient food.[8]

Make no mistake: the battle against global hunger vulnerability is winnable.

Moreover, the triple threat of high food and fuel prices along with financial recession has proven to be just a preview of continued volatility in global food markets. In many parts of the world, food costs remain high, and global prices are on the rebound.[9] Some analysts are already predicting a commodity shortage this year. With production capacity utilization of fuel and staple foods like corn and wheat already close to 100 percent and with global grains consumption still rising—even as recession continues to restrict investment—a strong upturn in the global economy may once again drive prices sharply higher.[10]

Without an immediate and aggressive response, not only will future growth and productivity be jeopardized, but so will broader economic development goals and the future security of all nations. Without food, people do one of three things: revolt, migrate, or starve. When governments can no longer provide food security, states fail. From ancient times to the 1970s when drought-induced famine toppled governments across West Africa to the food riots in nearly 40 countries in 2008, lack of food has fueled political instability.

Production Alone is a Field of Dreams

For some, the instinctive reaction is to presume that growing more food will solve the problem. Yet, increased agricultural production, while essential, is not

sufficient to end the scourge of hunger. Disconnected from sustainable programs that strengthen resilience and ensure adequate access to sufficient, nutritious food, the greatest harvests in the world are little more than a field of dreams for the world's hungry. More food does not necessarily mean more of the right kinds of foods. There is no proven direct connection between rising agricultural production and individual nutritional outcomes. In Kenya and the Philippines, for example, the adoption of cash cropping expanded food supply and doubled the household income of small farmers. But studies have shown that children's energy intake increased only four to seven percent, while child malnutrition was little changed.[11]

And all too often, significant advances in crop production stand alongside even greater deprivation. Nearly two-thirds of all undernourished people in the world live in Asia and the Pacific, precisely the regions where the transformative seeds, fertilizers, pesticides, and irrigation technologies of the Green Revolution contributed to some of the largest gains in farm yields. India has conquered famine, raised incomes and moved from food deficits to food surpluses, but remains home to more undernourished people than live in all of sub-Saharan Africa.[12]

80 percent of the world's population has no access to social safety nets.

Moreover, weaker agricultural production gains in Africa are not slowing progress in the battle against hunger. According to data prepared by the International Food Policy Research Institute, other low-income food-deficit countries like Ghana, Malawi, and Senegal cut their Global Hunger Indices at a faster rate and to a lower level than India between 1990 and 2008. As Norman Borlaug observed 30 years after winning the 1970 Nobel Peace Prize for his leading role in Asia's Green Revolution, "increased food production, while necessary, is not sufficient alone to achieve food security. Huge stocks of grain have accumulated in India, while tens of millions need more food but do not have the purchasing power to buy it."[13]

Nor is the gap between increased food production and individual access to it confined to Asia or to developing countries. The United States is among the largest and most efficient food producing nations on the planet. Yet, each year, tens of millions of American children, women, and men are threatened by hunger.[14] In the breadbasket of the world, a record 17 million households are food insecure and more than two-thirds of the U.S. Department of Agriculture's $133 billion in budget outlays for fiscal year 2010 are expected to be associated with nutrition assistance for low-income children and families. Certainly, no one would expect a bumper crop in the midwestern United States to reduce the need for domestic nutrition assistance or trigger automatic cuts in food security programs.

The relationship between food production gains and individual access to food is no more direct in other countries.

How to End Hunger

But the battle against global hunger vulnerability *is* winnable. Today, more than ever before, the global community knows how to strengthen resilience, boost access to food, and achieve food security. Developing countries like Brazil, Ghana, Malawi, Mexico, Rwanda, Vietnam, and others are beating the hunger trap with comprehensive antihunger strategies. The WFP's largest food aid program two decades ago was in China. Now, the WFP provides no food assistance in China. In fact, that country has become an important donor.

Where most successful, these comprehensive antihunger strategies address all aspects of food security and have three things in common: 1) they promote greater *availability* of food through increased agricultural production and also ensure adequate *access* to and *use* of that food through targeted food-based nutrition, social safety nets, and risk mitigation programs; 2) they connect and integrate actions in each of these areas in a sustainable and mutually supportive manner both by recognizing that governments alone cannot achieve food security and by promoting an essential role for the private sector; and 3) they focus on the needs of women and girls.

Promoting Availability, Access, and Use

The global community has long recognized that ending hunger requires a comprehensive approach embracing availability, access, and use. That was the conclusion of Nobel Prize economist and famine expert Amartya Sen following his analysis of the famine in Bangladesh. In a speech delivered more than a decade ago, he declared that "[f]ood production is indeed an important component of solving the problem of hunger in the modern world. But much else also needs to be done, including . . . special access to food on the part of vulnerable people."[15] It was the conclusion of a 2005 UN Millennium Project Task Force on Hunger report that recommended boosting food availability through increased agricultural production, ensuring adequate access to food through school meals and other food-based safety net programs, and strengthening use of food through nutrition interventions.[16] The 2008 report of Ireland's Hunger Task Force recommended "a refocus on agriculture," specific "nutritional interventions" as well as safety nets, and other "social protection programs" to reduce hunger "amongst vulnerable households."[17] Multiple World Bank reports have emphasized the same three-pronged approach to food security.[18] And that approach was adopted by leaders of the G-8 countries and more than 30 other nations at their July 2009 summit in L'Aquila, Italy who called for "increased agriculture productivity" and "access to adequate and affordable nutritious food."[19]

An important step toward ending hunger is empowering farmers in the developing world to contribute further to local and regional food needs. Initiatives like Sierra Leone's Operation Feed the Nation are training subsistence farmers to increase crop yields.[20] Similar plans in Brazil and China are improving family farm performance and strengthening local agro-industrial development.[21] In 2003, African leaders agreed to allocate at least 10 percent of their national budgets to agricultural and rural development. Ethiopia, Mali, Malawi, Niger, and other countries are already meeting that target. Particularly in rain-fed parts of Africa, but also in Afghanistan, Haiti and beyond, the world is just beginning to realize the tremendous potential of farmer training and extension services, improved seed varieties, pesticide technologies, and better storage and irrigation to dramatically increase farm production and incomes, while reducing the risk of losses from drought, pests, and spoilage.

Global private sector partnerships are playing a critical role in advancing these and other goals. In the desperately poor Siaya District of Kenya, for example, the Business Alliance Against Chronic Hunger is working with smallholder farmers, who often cultivate less than two hectares of land, to strengthen agricultural value chains. TNT, the international transportation and distribution company, has worked with the WFP to ensure that its worldwide food supply chain is operating at maximum efficiency and effectiveness. CARE and Cargill have teamed up to improve food security and alleviate poverty in countries around the world, in part by providing training, skills development, and market access to farmers.

The cost of hunger amounts to as much as 11% of GDP in some countries.

Ending hunger vulnerability, however, also means ensuring adequate access to essential food for those who cannot afford it at any price, whether through emergency food assistance following conflict and weather-related disasters or through food-based safety net programs. Targeted and well-designed safety nets strengthen resilience to sudden shocks by guarding against depletion of productive assets and reductions in education and health spending. Through its Zero Hunger initiative, Brazil operates a wide array of safety net programs, including food banks, community kitchens, and monthly income transfers to poor families known as the *Bolsa Familia*.[22] China's rural poverty reduction plan operates food-for-work programs for needy families in the western and central parts of the country.[23] The Boston Consulting Group and WFP have been working with the government of India to design and implement a set of measures that could double the amount of grain available to the needy through India's public food distribution system. A World Bank report produced at the height of the 2008 food price crisis found that for the poorest, food-based safety nets and other social protection programs "can

play a key role in forestalling increases in poverty" and "help households maintain access to food, energy, and essential services."[24]

School meal programs have proven one of the most powerful food-based safety nets ever implemented. They sometimes are the only assured source of food for the children of desperately poor households. And they can deliver much more in the bargain. According to a recent World Bank study, school meal programs can supply about 10 percent of household expenditure for each child who participates, and even more when schoolchildren are given "take home rations" for their families. There is also evidence that school meal programs increase school attendance, cognition, and educational achievement.[25] Early results of recent studies in Bangladesh and elsewhere particularly show that such programs dramatically increase enrollment of girls relative to boys.[26] With the support of donor nations, organizations like Philippine Business for Social Progress and leading firms like Unilever, International Paper, and Yum Brands, agencies such as WFP, Save the Children, and others are providing meals to children in dozens of countries. It would take just $3.2 billion a year to reach all 66 million hungry school age children around the world.

Risk management tools to offset the negative effects of climate change and other natural disasters are also potent and effective safety nets. In developed countries, livelihood and asset losses sustained in natural disasters are often covered by international insurance, capital markets, or government budgets which act as contingency funds. Such tools protect livelihoods by facilitating timely support and limiting the economic damage of disasters. But they are seldom available in developing countries, many of which are particularly exposed to natural disaster risk. In 2006, the WFP, with support from the World Bank, iniated a drought insurance project in Ethiopia in order to respond faster and more effectively to drought shocks in the country. The program leveraged market mechanisms by transferring drought risk to the international reinsurance company Axa Reinsurance using a sophisticated rainfall index. Together with the Rockefeller Foundation, the WFP is now looking at opportunities to expand this program and build a larger and more sustainable risk pool for natural disasters across countries in Africa.

Furthermore, ending hunger means ensuring people have the right kind of food to eat at the right time. Nutrition programs can meet the special needs of the most vulnerable including young children, pregnant and lactating women, and those living with HIV/AIDS and other diseases. They can eliminate vitamin and mineral deficiencies as well as improve the effectiveness of medical treatment through supplemental feeding. Mexico and other nations have led the way in advocating and providing for the nutritional needs of the most vulnerable. Launched in 1997, Mexico's PROGRESA program, which now reaches some 2.6

million poor families across the country, includes school meals and nutritional supplements for young children and pregnant and lactating women.[27] The private sector is also playing a vital leadership role. The WFP has joined the Global Alliance for Improved Nutrition (GAIN), Kraft, Royal DSM, and Unilever in launching Project Laserbeam, an innovative public–private partnership that will identify crucial country-level gaps in nutrition for children and create interventions to fill them.

Connecting the Dots

A successful solution to hunger vulnerability not only embraces availability, access, and use, it also connects and integrates activities across all three areas in a way that leverages every dollar spent to achieve multiple objectives.

Programs that boost agricultural production are supplying school meals and other food-based social protection programs with ever more nutritious produce, while helping to reduce the need for those programs over time. Brazil's Zero Hunger initiative and Sierra Leone's Operation Feed the Nation use local commodities as food assistance and encourage the consumption of homegrown food by promoting linkages between smallholder farmers and retailers.[28] Similarly, through an innovative partnership launched in September 2008 called Purchase for Progress, the WFP, the Bill and Melinda Gates Foundation, the Howard G. Buffett Foundation, and various nations are partnering to ensure that the WFP's global food aid purchases benefit small farmers, which account for half of the hungry in Africa.

The program will design and implement purchasing models in Guatemala, Liberia, Mali, Nicaragua, Uganda and 17 other pilot countries to ensure that poor farmers can produce at scale and connect with markets. As a result of the UN joint program under which purchase for progress is being implemented in Mozambique, the WFP's market outlet and the construction of farm-level storage silos have already reduced post-harvest losses and encouraged farmers to do more. By bringing demand closer to producers and enabling low-income smallholder farmers to become suppliers to food assistance and other programs, the WFP and a wide tapestry of partners are helping farmers reduce risk, leverage credit, and make necessary investments to boost agricultural production and productivity. The WFP is not seeking to be the main source of market for targeted farmer groups, but rather to help broaden their market readiness and opportunities. Increased production can also drive innovation to strengthen food use, including creating new hybrids of staple crops that incorporate micronutrients through bio-fortification.

Well-designed school meal and other social protection programs which ensure adequate access to sufficient food can also be scaled up quickly and cost-effectively to meet emergency needs. They can achieve specific social and nutritional goals while creating a ready market for increased agricultural

production, improving food storage, strengthening rural infrastructure, and even providing access to credit. In the first six months of 2009, for example, 74 percent of the WFP's cash to purchase food was used in developing countries. Some of that assistance went into micronutrient fortified foods for school meals in places like Ghana, Kenya, and Malawi. By purchasing food locally for school meals, the WFP and nongovernmental organizations (NGOs) like CARE, Catholic Relief Services, and World Vision are not only helping to meet nutritional needs and attract children to school, but are also stimulating local market demand for maize across sub-Saharan Africa and contributing to the longer-term sustainability of these programs.[29] Over the last 45 years, more than 40 national governments have successfully taken over school meal programs launched by donor countries, NGOs, and international organizations like the WFP, including Brazil and India which currently operate two of the largest school meal programs in the world.

Local purchases also support, or are the result of, other successful safety nets including vouchers, cash transfers, and food-for-work programs. In urban areas like Ouagadougou, the capital of Burkina Faso, staple foods are often available but many cannot afford them, so the WFP is providing vouchers to help 180,000 people feed themselves. Those vouchers can be used to purchase food at local markets, and the owners of those markets can exchange them for cash. A similar cash transfer program organized by Oxfam in northern Kenya ensures that 22,000 people have adequate access to food and other basic necessities.

> Without food, people do one of three things: revolt, migrate, or starve.

Food-for-work programs offer food in exchange for valuable labor on rural infrastructure projects necessary for long-term food security including feeder roads, dams, and wells. A food-for-work program organized by World Vision in Laos has helped small farmers boost longer-term local rice production by providing food for their families while they prepare additional land for planting. LG Electronics supports food-for-work programs across the Amhara region of Ethiopia where hungry people receive food in exchange for work on infrastructure projects that make agriculture more fruitful, sustainable, and resilient to climate change. Similar initiatives organized by the WFP in the southern part of Sudan are assisting returning refugees to reintegrate into their communities, build livelihoods, and plan for the future.

Food-for-work programs are also powering innovative initiatives creating new farming opportunities and building resilience to weather-related shocks. Land degradation is one of the major factors undermining food security and aggravating vulnerability to droughts, chronic food shortages, and malnutrition. Ethiopia,

Hunger is a complex challenge that must be addressed through a range of tools.

working with the WFP, is proving that barren land can be restored through a groundbreaking community adaptation program called MERET. The idea is simple: reclaimed land can produce food, support livelihoods, and help communities adapt to weather and climate changes. Food security of households benefiting from MERET has increased by 50 percent. While critical larger-scale infrastructure necessary to connect farms to national and global markets is beyond the scope of projects like these, food-for-work can have an important impact in local areas.

Food-based social protection programs are further helping to reduce the risk of food losses and improve access to credit for small farmers. A warehouse receipt program in Uganda funded by the U.S. Agency for International Development is turning grain into collateral by allowing farmers to store their crops at harvest, receive a loan up to a certain percentage of their value, and then sell the crops and repay the loan later in the season as prices rise. In partnership with NGOs and donor governments, the WFP is helping to improve village-level food storage by setting up as many as 175 new community granaries a year in Cameroon. Under the management of local women, such granaries buy and store cereals after harvest, and then sell them to members of the community at affordable prices during the lean season. In the process, they contribute to local procurement, improve the income of smallholder farmers, and facilitate access to food.

Likewise, nutrition initiatives that strengthen food use among vulnerable groups are ensuring a labor force that is ready to participate in strong agricultural production gains and a market for locally grown and processed supplements. Good nutrition, especially for women, is an essential input to agricultural production. Women are less able to grow food if they are anemic. Mothers spend less time in the fields when their children are constantly sick and malnourished. Wherever possible, the WFP purchases locally produced or processed foods for nutritional interventions. Production, processing, and fortification of food close to the consumer have numerous benefits including enhancing local food processing capacity, shortening the period between production and consumption, generating employment, and sometimes lowering costs.

Today, as a result of recent advances in science and technology, nutritionally-enhanced foods are at the center of efforts to end global child undernutrition. This includes ready-to-use foods, which are energy- and nutrient-dense products that come in the form of spreads or pastes and do not require water, thereby reducing the risks of contamination and child infections. The treatment of severe acute malnutrition has been revolutionized through ready-to-use

therapeutic foods like Plumpy Nut®, a peanut-based high protein paste. Efforts to develop ready-to-use-*supplementary* foods to prevent and treat moderate acute malnutrition are also underway.

In India, for example, the WFP is partnering with local industry and food technologists to develop a micronutrient-fortified spread based on chickpeas. A win-win solution, the spread is affordable, acceptable, and produced using local inputs from Indian agricultural producers. In addition, GAIN and WFP are working with the government of Egypt and the private sector on a nationwide project to fortify wheat flour and thereby protect 50 million Egyptians from anemia and other deficiencies. The WFP and the Micronutrient Initiative have worked with 7,000, mostly female, village salt producers in Senegal to iodize salt and combat iodine deficiencies. Because the WFP contracted to purchase salt from these women at a predetermined price, they were able to invest in the equipment necessary for iodine fortification. Today, the system works so well that the women are producing a surplus that can be sold locally.

Empowering Women and Girls

To achieve their full potential, these powerful programs also must focus on women and girls, who are the key to ending hunger vulnerability. Simply by placing traditionally marginalized women at the center of actions to iodize salt or expand school meals can deliver extraordinary returns. Women farmers may account for as much as 80 percent of Africa's food production, but just one percent of the world's landowners.[30]

A series of studies has shown that when women hold assets or gain incomes, family money is more likely to be spent on nutritious foods, medicine, and housing. Children are healthier as a result. In explaining reductions in children's malnutrition rates between 1970 and 1995, improvements in women's education, which is closely associated with control over income and status, was twice as powerful as increased food availability according to an analysis in 63 countries.[31] So, the WFP is mainstreaming gender across its worldwide operations. Already, women and girls receive more than half of all the food relief the WFP distributes, 66 percent of all nutritional interventions, 63 percent of school take-home rations, and 78 percent of food for training grants.

People-First Solutions to End Global Hunger

Critically, the world has also seen why truly comprehensive solutions like these are so vital to ending hunger vulnerability. Hunger is a complex challenge that must be addressed through a range of tools. Connecting programs that mitigate risks and meet the nutritional needs of hungry people with the production of smallholder farmers not only makes economic sense but can forge strong and lasting political coalitions.

These comprehensive antihunger strategies have three things in common.

Today, almost half the world—more than three billion people—lives on less than $2.50 a day, and about a billion of those survive on less than a dollar a day.[32] For these individuals and their families, the margin between earning and spending is razor thin. For most, food consumes up to 70 cents of every dollar earned. They have no savings accounts, few assets of value, and hence little to fall back on when times get tough. They bear the economic risks of everyday life on their dinner plates. When times are good, they may get enough to eat and perhaps afford a wider diet. But when disaster strikes, crops fail, incomes fall, or conflict arrives on their doorstep, they cut spending on schooling and switch to cheaper and less nutritious coarse cereals. Women, and then girls, go hungry so men and boys can eat.[33] In many cases, food is available, but the poor simply do not have the money to buy it or the power to command it.[34]

When high prices and economic recession spread hunger last year, the global community and countries like Saudi Arabia as well as many others responded with heroic action and generous resources that quelled riots and saved the lives of millions who could not afford to eat. But hunger is still on the march. Risk and volatility define a global economy in which seemingly isolated food price and supply shocks increasingly ripple outward to developing nations, often with broad and devastating effects.

As the United States and many other nations begin to implement powerful new food security initiatives, the world has an historic opportunity to set a bold goal to end global hunger vulnerability and to launch the short- and longer-term actions necessary to achieve it. We already know how to get there. Innovative and far-sighted developing nations have led the way with comprehensive, sustainable, and proven solutions. All that remains is to supply the tools and maintain the vision, leadership, and commitment necessary to ensure others can do the same. As President Barack Obama remarked at last year's G-8 Summit in Italy, "wealthier nations have a moral obligation as well as a national security interest in providing assistance. And we've got to meet those responsibilities."[35]

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33. See World Bank, "Rising Food and Fuel Prices," p. 3.
34. See World Bank, "Poverty and Hunger: Issues and Options for Food Security in Developing Countries" (Washington, D.C.: World Bank, February 1986).
35. Office of the Press Secretary, The White House, press conference, L'Aquila, Italy, July 10, 2009, http://www.whitehouse.gov/the_press_office/Press-Conference-by-the-President-in-LAquila-Italy-7-10-09/.