2014

Challenges

Meet future demand for food

Conserve and enhance water, soil, and habitat

Improve nutrition and public health

Strengthen farms and communities to improve livelihoods

Initiatives

Food & Nutrition

Immigration Reform

International Development

Local Food

Next Generation

Research & Innovation

Risk Management

Working Landscapes

By 2050, the world's farmers will likely need to feed two billion more people. They will have to do so using far less water on roughly the same amount of arable land, while facing growing conditions affected by shifting weather patterns. Rapid urbanization will lengthen supply chains and place an increasing premium on efficient and safe processing, storage and transport of food. Nations that today are struggling with food insecurity are projected to sustain the most dramatic increases in population and urbanization, as well as be adversely impacted by climate change in the coming decades.

Changes in local and global food and agricultural systems are underway as new production technologies, expanded agricultural trade, and changing dietary habits take hold. Food systems operate from "farm to fork," encompassing not only the on-farm tasks of growing and harvesting food and fiber, but also its storage, transport, processing, packaging, marketing, and consumption. Across the globe, public and private organizations are investing in efforts to develop economically and environmentally sustainable supply chains that deliver safe, affordable, and nutritious food.

Significant gaps remain. Producers in many countries are not realizing potential yields and sufficient incomes to escape poverty; low-income consumers are not able to access sufficient food and many experience chronic hunger; and post-harvest loss and food waste remain unacceptably high. The United States has long played a leadership role in the global food and agriculture system. Going forward, AGree believes that the U.S. must continue to mobilize broader efforts to spur innovation and support the growth of national and regional food and agriculture systems that will ensure success in feeding the world in 2050.

AGree has developed eight recommendations to strengthen and support long-term U.S. commitments to global food and agriculture. These recommendations, presented below, are directed to the U.S. government, producers and companies in the supply chain, researchers, and civil society organizations. Five key principles underpin our recommendations.

AGree's Principles for a Food Systems-Focused International Development Program

- Leverage long-term investments and the leadership of the U.S. public and private sectors, researchers, and non-governmental organizations to support developing countries in pursuit of their own nationally- and regionally-established goals for agricultural production and food systems development.
- Increase food security, economic opportunity and sociopolitical stability in developing countries through support for food and agricultural practices and technologies that intensify production in a manner that preserves and protects water resources, improves soil health, conserves habitat and natural resources for future generations, strengthens nutrition, and mitigates the impacts of climate variability.
- Strengthen human capital in developing countries and support the next generation of leaders in food and agriculture.



- 4. Support collaboration among key stakeholder groups, including institutions with different expertise and interests such as agricultural production, food processing, conservation and environment, health and nutrition, emergency assistance, global stability, and post-conflict and peacemaking organizations, to create opportunities for more effective alignment and use of resources.
- Develop and adopt effective monitoring and evaluation tools to ensure accountability, facilitate meaningful comparisons of results over time and improve understanding of development options suited to unique contexts around the globe.

The U.S. food and agriculture sector is widely regarded as one of the most productive, efficient, and innovative in the world. The U.S. land-grant university system – established more than 150 years ago – laid the research and education foundation for the development of more productive crop varieties, livestock breeds, and farming practices. Land-grant universities have educated thousands of international students who have gone on to lead research efforts in their own countries.

In partnership with other nations, the U.S. government, foundations, and non-governmental organizations (NGOs) have provided critical support for food and agricultural initiatives and research focused on the unique challenges of agricultural systems in developing countries. The U.S. government and humanitarian organizations have been leaders in providing food, funding assistance, and on-the-ground support to people in need, especially during natural disasters and conflicts. And, responding to consumer demands, the private sector has developed new technologies, systems, and markets.

While U.S. investments, agricultural productivity, and foreign assistance have improved the lives of millions around the world, there is increasing concern about environmental issues, especially the maintenance of water quality and quantity and the impacts of climate change. Growing populations have put pressure on the land. Many of the chronically hungry are smallholder farmers who rely on agriculture for food and income but struggle to grow enough food to eat and sell. Health issues are also coming to the fore. Globally, more than 1.4 billion

people are obese or overweight² (2008 data) and nearly 870 million suffer from chronic undernourishment³ (2010-2012 data).

Looking back, some people view the "Green Revolution" as an agricultural success, while others are critical or more tempered in their praise, noting some of the adverse environmental and social consequences that resulted from agricultural intensification. AGree acknowledges these tensions and, looking ahead, supports diverse approaches to agricultural production, including agro-ecological approaches, climate-smart agriculture, and sustainable intensification. Pitting one system against any other is an unproductive diversion. Prioritized research, new technologies, and system innovations can make agriculture more productive while reducing its environmental impacts and creating economic opportunities for smallholder farmers and others in the food value chain.

The challenges facing farmers and the entire food and agriculture supply chain in developing nations have never been greater, and they require a basket of approaches. Developing country food and agriculture systems need investments in infrastructure – reliable power, water, roads and storage and processing facilities. They need investments that reduce post-harvest loss and other types of food waste. They need access to credit and data, strong institutions and legal systems, supportive government policies and organizational systems that support capacity building for agricultural entrepreneurs all along the food and agriculture supply chain. They need investments that support the women in smallholder systems who play a central role throughout the food system and help ensure household-scale nutrition and community-wide food security.

The challenges facing the global food and agriculture system and the unique conditions in different developing countries require a long-term, sustained commitment to food systems-focused international development that is country-led and emphasizes local and regional capacity building. One such program is the Comprehensive Africa Agriculture Development Program (CAADP), an Africa-owned and led initiative designed to address land and water management, market access, food supply and hunger, and research focused on boosting productivity. We must offer resources to build local capacity and

Long-term Decline in Global Aid to Agriculture is Reversing

At the 2009 G-8 summit in L'Aquila, Italy, donor countries, led by U.S. President Barack Obama, committed to increase agricultural development assistance by \$22 billion over the next three years, the U.S. share of the increase to be \$3.5 billion.

While U.S. spending on international agricultural development has nearly tripled in the past decade, it remains a tiny share of total federal spending (including mandatory and discretionary spending, as well as net interest). According to the Congressional Budget Office, total federal outlays were \$3.54 trillion in fiscal year 2012.⁴ At \$25.8 billion, total U.S. official development assistance as reported to the OECD accounted for 0.72 percent of total spending in that year.⁵ The share of agricultural development nearly gets lost in a rounding error on even that modest share, accounting for 0.04 percent of total U.S. spending.



support technology, research and other vital tools appropriate to the diverse contexts that exist in developing countries. We need renewed commitment to both agricultural research and the development of human capital in developing countries. Development practitioners refer to this integrated, multi-sector framework as a "Whole of Government" approach because it integrates agriculture, economic development, global stability and security, nutrition, and health initiatives within and among donor governments and host country governments and includes private sector and civil society partners. Clearly, this country-driven, food-systems focused approach requires vision, leadership, and responsive investment from all sectors.

AGree sees great opportunity for better aligned U.S. policy and programs, coupled with private sector and civil society investment and action, to bolster country-led efforts, strengthen local capacity, and integrate agricultural development, nutrition, and health. The provision of safe, affordable, and nutritious food produced in ways that are socially inclusive and environmentally-responsible (i.e., conserving and enhancing water, soil, and habitat) can build a safer, more diverse and secure, and sustainable global food system.

AGree Recommendations to Harmonize and Support Long-term U.S. Commitments to Global Food and Agriculture

AGree's recommendations are directed to the U.S. government, the food and agriculture system (producers and the supply chain), and civil society organizations working in developing countries.

- Congress should enact authorizing legislation that recognizes the importance of agriculture and food systems development to economic self-reliance, social and environmental sustainability, and the achievement of a hunger free world. This permanent law should institutionalize a whole of government approach and establish food security as an enduring goal of U.S. foreign development assistance programming.
- 2. Congress should reform food and disaster assistance legislation to decrease monetization and increase flexibility for cash and local and regional purchasing of food for emergency distribution, fully integrating humanitarian and development assistance and expanding engagements with recipient countries to help them develop sustainable food systems and safety net programs of their own.
- Provide an expanded food security and agricultural development "tool box" to U.S. ambassadors and mission directors. U.S. diplomatic and development efforts should support the food security goals of each

Whole of Government Approaches

"Whole of government" approaches bring the resources, programs and policy expertise of multiple ministries and agencies around a particular initiative. In the U.S., agencies including but not limited to the U.S. Agency for International Development (USAID); the Departments of State, Agriculture, and Commerce; the Office of the U.S. Trade Representative; and the Millennium Challenge Corporation are working together through a whole of government approach to address food security in developing countries.

U.S. Agriculture a Vital Part of the Global Food and Agriculture System

While American agriculture will continue to play a vital role in meeting global demand for food, increases in productivity to feed a growing world need to occur primarily in the countries that will face population growth and have significant yield gaps.

The global community should aspire by 2050 to have closed the yield gap between developing and developed countries through the adoption of productive agricultural systems that communities deem appropriate to their social and ecological context.

The United States can lead efforts to help the world's developing countries increase domestic production in ways that are economically and culturally appropriate, encourage the development of sustainable conservation practices, and lead a resurgence in agriculture-related research, extension and education focused on the challenges of sustainability, climate variability and water scarcity, all problems facing farmers around the world.

Exchanging knowledge and strategies between the U.S. and developing countries will benefit both. However, strategies to transfer knowledge, production systems, and landscape scale working lands conservation approaches from one context to another requires great care and active involvement of relevant stakeholders in adaptation to their context.

Source: AGree's Working Landscapes Initiative: Achieving Productivity, Profitability, and Environmental Outcomes, November 2014.



country, and senior U.S. officials should be familiar with the full suite of available tools, regardless of whether the country is designated as a "Feed the Future" country. Tools include scientific exchanges and cooperation both within the academic setting and with the larger science community; private sector engagement and investment; assessments of commercial opportunities; and research and development cooperation.

- 4. Create partnerships and incentives for increased investment in developing country agriculture, particularly investments that support smallholder farmers. Leverage multilateral funding institutions such as the International Finance Corporation and the World Bank to bundle financial support and provide the technical assistance and training needed for private sector investment in smallholder agriculture.
- 5. Encourage U.S. universities to more actively engage in international public/private partnerships relevant to food security and agricultural development.
- Reinvigorate public investments in food and agriculture research, especially education and extension aimed at assisting farmers in developing countries to overcome barriers to building healthy soils, boosting productivity, and increasing access to affordable and nutritious food.
- Support programs in developing countries that educate consumers about the relationship between food, nutrition and health to encourage positive dietary choices and health outcomes.
- 8. Support public review and debate on food and agriculture issues that have global impact, including agricultural inputs (GMOs, pesticides, and fertilizers); definitions (GMO, organic); trade rules; food safety regulations; intellectual property rights; and ownership of genetic materials.

Integrating Nutrition and Health

AGree often hears how the silos within international development programs treat agriculture as wholly separate from nutrition and health, when we know that adequate calories are an important component of health and the right kinds of calories coupled with micronutrients are an important component of good nutrition. AGree has developed recommendations about how to integrate food, nutrition, hunger, and health at the community level in the U.S. to improve health and well-being for Americans. A number of these recommendations are equally applicable overseas:

- Coordinating community-level programs related to food security, nutrition, and health to address these issues simultaneously.
- Identifying and scaling up models that are successfully improving community health through food and nutrition for low-income, food insecure families as well as the broader population by better leveraging human, organizational, and financial resources.
- Supporting research that integrates food security, nutrition, and health objectives and tests the efficacy of strategies in specific geographic areas. Behavioral research is also needed to form innovative approaches to make healthy choices the easy choice for families.
- Encouraging responsible food marketing practices and utilizing scientific evidence about the impact that label changes or advertising has on consumption and purchasing patterns.

Source: AGree's Food & Nutrition Initiative: Cultivating Healthy Communities, November 2014.

Photo credit: ACDIVOCA

¹ United Nations, "World Population Prospects: The 2010 Revision," p. 1. Available at: http://esa.un.org/wpp/documentation/pdf/WPP2010_Volume-I_Comprehensive-Tables.pdf.

² World Health Organization, WHO Fact Sheet No. 311, May 2014. Available at: http://www.who.int/mediacentre/factsheets/fs311/en/.

³ Food and Agriculture Organization of the United Nations, "The State of Food Insecurity in the World," 2012, p. 8. Available at: http://www.fao.org/docrep/016/i3027e/i3027e.pdf

⁴ Congressional Budget Office, "Historical Budget Data." Available at: http://www.cbo.gov/publication/45249.

⁵ Organization for Economic Cooperation and Development, "Creditor Reporting System, Official Development Assistance Flows." Available at: http://stats.oecd.org/Index.aspx?datasetcode=CRS1.



Although all the individuals formally affiliated with AGree may not agree completely with every statement noted, they are committed to working together to find solutions to the challenges facing food and agriculture. AGree Advisors participated as individuals, not as official representatives of their organization.

About AGree

AGree seeks to drive positive change in the food and agriculture system by connecting and challenging leaders from diverse communities to catalyze action and elevate food and agriculture policy as a national priority. AGree recognizes the interconnected nature of food and agriculture systems globally and seeks to break down barriers and work across issue areas.

Co-Chairs

Dan Glickman, Former Secretary, U.S. Department of Agriculture
Gary Hirshberg, Chairman, Stonyfield Farm, Inc.
Jim Moseley, Former Deputy Secretary, U.S. Department of Agriculture

Emmy Simmons, Former Assistant Administrator for Economic Growth, Agriculture, and Trade, USAID

Advisory Committee

Rudy Arredondo, National Latino Farmers and Ranchers Trade Association

Ousmane Badiane, International Food Policy Research Institute

Tres Bailey, Wal-Mart Stores, Inc.

Dave Baudler, Cargill

Chuck Benbrook, Washington State University **Gregory Bohach**, Mississippi State University

Jim Borel, DuPont

Craig Cox, Environmental Working Group

Kristin Weeks Duncanson, Duncanson Growers

Bev Eggleston, EcoFriendly Foods

Jeremy Embalabala, National 4-H Council

Debra Eschmeyer, FoodCorps

Steve Flick, Show Me Energy Cooperative

Paul Guenette, ACDI/VOCA

Hal Hamilton. Sustainable Food Lab

Susan Heathcote, Iowa Environmental Council

Rain Henderson, William J. Clinton Foundation

A.G. Kawamura, Solutions from the Land Dialogue

Shiriki Kumanyika, African American Collaborative Obesity Research Network

Carl Mattson, George Mattson Farms, Inc.

Johanna Nesseth Tuttle, Chevron

Pat O'Toole, Ladder Livestock Company, LLC

Judith Redmond, Full Belly Farm

Nancy Straw, West Central Initiative

Bob Thompson, Johns Hopkins University

Elizabeth Thompson, Environmental Defense Fund

Connie Veillette, The Lugar Center

Y. Claire Wang, Columbia University

Shonda Warner, Chess Ag Full Harvest Partners, LLC

Greg Watson, Massachusetts Department of Agricultural Resources

Elaine Waxman, Feeding America

Fred Yoder, Ohio Corn Growers Association

Research Committee

Christopher Barrett, Cornell University

Douglas Jackson-Smith, Utah State University

Philip Martin, University of California, Davis

John Reganold, Washington State University

Beatrice Lorge Rogers, Tufts University

Kitty Smith, Council of Professional Associations on Federal Statistics

Thomas Tomich, University of California, Davis

AGree is a collaborative initiative of nine of the world's leading foundations, including the Ford Foundation, Bill & Melinda Gates Foundation, The David and Lucile Packard Foundation, W.K. Kellogg Foundation, The McKnight Foundation, Robert Wood Johnson Foundation, Rockefeller Foundation, Surdna Foundation, and The Walton Family Foundation.