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Madame Chair, members of the Committee, I am Andrew Rosenberg, Chief Scientist for Conservation International. Thank you for the opportunity to testify today on the risks and challenges facing American agriculture in the demands of a growing world. With the world's population expected to grow from 6.9 billion to more than 9 billion over the next 40 years, and with global food demand expected to double by 2050, the United States and the rest of the world face enormous challenges to ensure an adequate food supply. Food security is part of Conservation International's mission. Our broader mission is to empower societies to responsibly and sustainably care for ecosystems and the services they provide for the well being of humanity. Our scientists, economists and policy analysts from our Virginia headquarters as well as from our field operations around the globe, work together to address the challenges of food security and, more broadly, land usage for sustainable development.

At Conservation International we have a staff of over 800 people in more than 30 countries including the Americas, Africa, Asia, and the Pacific. We partner with governments, corporations, other non-governmental organizations, academia and others to help reverse the unsustainable drawdown of the Earth's natural resources and to ensure that development is based upon the principle of sustainability. A few of the leading U.S. companies that we work with include Monsanto, Bunge, Cargill, Starbucks, JP Morgan Chase and Wal-Mart.

Conservation International serves as an informal advisor to the Global Harvest Initiative, a partnership among Archer Daniels Midland, Monsanto Corporation, John Deere and DuPont. This group shares the common goal of addressing hunger and food insecurity by sustainably closing the agricultural productivity gap.

Conservation International has identified the agricultural sector as a priority for a few key reasons; the agricultural sector is a major driver of rural economic development providing income, employment and prosperity for farmers and farm workers around the world and addressing poverty and food issues globally helps foster the broader foreign and economic policy goals of the United States, such as enhancing U.S. national security, promoting democracy and expanding free markets. Ensuring a reliable food supply helps with regional stability in developing countries and provides growing markets for American exports. Working together with the private sector, and others, Conservation International participates in sustainable agricultural development projects.

The challenge of feeding a global population of 9 billion is threefold; to meet the demand for food from a growing and wealthier population, to increase production in an environmentally and socially sustainable manner and to ensure that the world's poorest people are no longer hungry.

From our work over the last nearly 25 years we know that we must not only improve food production from agriculture, aquaculture and fisheries, but also conserve the natural systems upon which that production depends. For example, natural systems provide many essential supporting services for agriculture, such as fertile soil, runoff protection, water regulation, and pollination to name a few. All people and societies, including America's farmers, rely upon our natural assets as the foundation upon which the agricultural sector

depends. For example, beneficial arthropods, including native bees, predators, and parasitoids, provide valuable ecosystem services worth \$8 billion to U.S. agriculture each year.

We know that farmers are already experiencing the consequences of declining natural ecosystem health at global, regional, and local scale through the severity and frequency of shocks such as severe drought, storms, flooding, and other events to food production systems. We stand at a critical point in history for agriculture that will require the agricultural sector to be innovative and to engage in more sustainable practices. Towards this end, Conservation International has worked with corporations, government, intergovernmental organizations, private foundations, local communities, and others to test innovative methods to promote conservation within agricultural landscapes drawing from lessons at both scales - bottom-up and top-down.

For example, Conservation International's work with the Gates Foundation in East Africa to develop a monitoring system for ecosystem health, the services ecosystems provide and human well being in agricultural landscapes, is an example of the types of tools and systems that can improve and increase food production while ensuring that the natural systems that underpin production are not undermined.

We believe that farmers and other farming stakeholders could benefit from better data to make informed management decisions and improve the efficiency of their operations. To this end, Conservation International was a founding member of a United States oriented initiative, the Keystone Field to Market Initiative, that has developed objective, data-driven tools to help farmers manage their farms, explore different management scenarios and compare their performance to peers.

Through our partnerships with agribusiness companies such as Bunge and Monsanto, and their vast network of farmer-clients, we have piloted programs in Brazil to encourage the protection and creation of private protected areas in agricultural landscapes. One of the objectives of this project is to demonstrate that production agriculture and conservation can co-exist and provide co-benefits to each other in the same landscapes.

In several countries, such as Indonesia, Brazil, Liberia, Peru, Conservation International is working with the private sector and farmers to identify degraded lands appropriate for crop cultivation. Together with local partners we are supporting efforts to encourage better management practices, to improve yields and reduce inputs like water, fertilizer and pesticides, as a means to reduce the stress on nature and the services it provides. A mosaic of agricultural landscapes help capture rainfall to feed watersheds, serve as a habitat for pollinators and other species and help stem impact from soil erosion. These landscapes ultimately provide a return to the farmers in the area by ensuring that their agricultural landscapes remain productive over the long-term and produce crops with fewer inputs.

Increasingly, customers are demanding that the products they buy are produced in a sustainable manner. Retailers, restaurants and consumer products organizations have responded to this demand by making public commitments to source sustainable produced products. Over the past 20 years, Conservation International has had numerous partnerships with corporations such as McDonald's, Starbucks and WhiteWave Foods to help them develop sourcing policies,

and guidelines to orient their purchasing of key agriculture commodities to encourage the purchasing of sustainably grown commodities.

With a grant from the U.S. Department of Energy, Conservation International has led a program to evaluate options for a more sustainable biofuels industry that ensures that biofuel production is not a threat to biodiversity and ecosystem services. This program utilized spatial planning programs to identify high-risk landscapes that house a higher degree of ecosystem services, as well as to identify landscapes that are optimal for agricultural production. This broad scale landscape planning can provide a win-win for farmers and the protection of natural resources. (Full report can be found at: http://www.conservation.org/sites/celb/Documents/2011.04.03_DOE_CI_Sustainable_Biofuel_Crops_Final.pdf)

Conservation International works in partnership with WWF-South Africa, several NGOs, and the private sector on an initiative known as Green Choice. This initiative helps to ensure wise resource use by working across the value chain with producers, retailers and manufacturers. Sustainable farming and land stewardship initiatives that Green Choice supports include wine, potatoes, rooibos tea and others, from both subsistence and commercial farming. At the government and retail level, the initiative advocates for promoting access to markets. At the local level, Conservation International works with communal farmers to increase the value of their livestock production and conserve their wetlands to maintain a source of freshwater for people and nature.

At the macro-global scale, Conservation International and other stakeholders are participating in several commodity roundtables such as the Roundtable of Sustainable Palm Oil (RSPO), Roundtable on Responsible Soy (RTRS) and Roundtable on Sustainable Biofuels (RSB). One of the greatest values of these roundtables is that they include participants from farmers and farmer organizations, governments, non-profit organizations, corporations, and others with a goal to develop global standards and principles for commodity production that adheres to best practices for agricultural production and sustainability for key commodities like soy, palm oil and biofuels.

As a global leader, the United States has an opportunity to promote innovation in our agriculture sector that will ensure that American farmers remain leaders in food production, ensure a sustainable food supply and remain economically viable.

We look forward to working with the Committee to ensure that the growing population can be fed without depleting the natural resources which agriculture and humankind depend on to thrive.

Thank you for the opportunity to testify today. I would be pleased to respond to questions.