As the global population continues to increase, surpassing 7.7 billion people in 2019, over 2 billion people are undernourished while obesity rates are simultaneously increasing. Feeding a growing population requires mass-scale food production, but over 30 percent of the food we currently produce goes to waste. Exacerbating these issues are the impending challenges of climate change, with unpredictable weather patterns already beginning to affect crop production in many regions of the world.

The Food Forever Solutions Summit, hosted by Foreign Policy and Crop Trust in Washington, D.C., on Dec. 3, 2019, took aim at two of the biggest threats facing humanity today: climate change and food security. Experts, ranging from agriculturists and star chefs to government officials and industry executives, illustrated the scope and complexity of these challenges, as well as opportunities for collaborative and enduring solutions.

Throughout the program, experts repeatedly emphasized the need to introduce greater crop diversity, increase education along all segments of the supply chain, and embrace technology as part of the solution. Through three engaging sessions, experts provided guidance for how public policy, small farmers, consumers, and entrepreneurs can all engage with the food system to promote more sustainable farming practices, reduce waste, and meet the challenge of feeding a growing population.
Solutions require systems thinking and recognition of the intersectionality of food, security, and environmental issues. Climate change, agriculture and our food supply chains are all interlinked. Effective solutions need to take into account the interconnected nature of these issues and the food system as a whole.

Increasing crop diversity is an imperative. Roughly 60 percent of the calories consumed in the US are from only four crops. This contributes to unhealthy eating patterns, exposes large amounts of crops to harvest failure, and eliminates the biodiversity necessary to make crops resistant to pests and diseases. Chefs can play a role in introducing the public to more diverse ingredients, while governments can support farmers to expand production of alternative crops.

Food waste is a pressing global issue with myriad causes, requiring multi-pronged solutions. In America alone, 30-40 percent of all food produced goes to waste. Food is wasted in the fields, in retail, and upon consumption. Food waste is driven by a wide range of factors, from a lack of refrigeration, to arbitrary “best by” dates on food labels. A lack of public awareness is also part of the problem, but effective policies, such as changing liability laws for food donations, can have large positive impacts.

New technology is a critical enabler of more efficient and sustainable practices but should be balanced with high-impact, traditional techniques. Tech is enabling more effective matching of market demand, providing satellite imaging and banking for small growers – but traditional agriculture techniques should not be forgotten. Carbon sequestration in the soil and pasture-based agriculture are established techniques that are central in addressing climate and environmental challenges. The key is to balance effective traditional techniques, while financing research and innovation in areas that technology can improve.

Direct dialogue between government officials and farmers is necessary, particularly in establishing incentives for sustainable agricultural practices. This includes outreach to small growers, women landowners and large farm systems, and working together to enact effective policies and regulations across the entire supply chain.

Data-driven research and cooperation among governments, farmers, private sector entrepreneurs and researchers are essential for substantive change. Government policies can subsidize sustainability and education efforts, but they need to be informed by evidence-based approaches. The private sector can provide new technologies, but their efforts should be guided by farmers’ needs. Collaboration across sectors and along the supply chain will help yield the most effective solutions.
Food Security in a Carbon-Constrained World

SPEAKERS:
The opening portion of the summit featured armchair conversations with Rep. Chellie Pingree (D-ME) and chef and TV Personality Carla Hall, as well as a panel with Beth Dunford, USAID; Beth Sauerhaft, American Farmland Trust; and Thomas Pesek – FAO

MODERATOR:
Craig Hanson – World Resources Institute.

The summit kicked off with Rep. Chellie Pingree (D-ME) providing an inside look at food security and sustainability from the government perspective. Congresswoman Pingree emphasized the need to meaningfully engage farmers in the conversation and pull them in to help find answers to questions of sustainability. She highlighted the enthusiasm among farmers to participate in more sustainable practices, such as sequestering carbon in the soil. However, there is a need for effective incentives, such as targeted and well-designed subsidies or integration with developing carbon markets, that allow farmers to be both sustainable and profitable. The panel continued on this theme, elaborating on the need to further engage with farmers by providing education and partnering with the private sector. Rep. Pingree reinforced that education is essential to changing agricultural practices that are ineffective due to climate change. Addressing this requires better coordination between the public and private sector. The public sector can enact policies that reward sustainable farming practices, while the private sector can play an integral role in driving innovation and the strategic application of new technology, for example to develop more resilient and high-nutrient crops. Chef Carla Hall emphasized the role that individuals can play. By introducing new foods, chefs can create demand for more diversified diets. Additionally, by traveling and engaging with different food cultures, chefs and consumers themselves can help spread new dishes, ingredients, and cooking methods.
In the second session, the panelists emphasized the roles which research and data can play in the fight against the synergistic epidemics of obesity, undernutrition, and climate change. At the nexus of this conversation are food systems. The first step towards enacting effective solutions is a shift in perspective, centering the discussion on systematic issues and the potential for collaboration among all stakeholders. A popular proposed solution is switching to a plant-based diet, but even a basic plant-based diet often costs more than many people can afford. The panel lively debated meat production, technology, and regulation. Though meat production is often associated with adverse health and environmental issues, panelists acknowledged that eliminating meat is not a viable or desirable solution. Instead, the panelists focused on how meat is raised, moving towards pasture-based systems, and addressing the competition between food for animals and food for humans. There was widespread agreement that technology could be used to improve market efficiency and transparency, allowing farmers to better match consumer demands. Regulations were acknowledged as potentially playing a role; however, the panel was hesitant to endorse large-scale government intervention. Instead, they emphasized the need for better data-driven research to fully understand the effects of regulations, and a greater focus on subsidies and other supports that reward sustainable practices.
The third session focused on addressing the food system as a whole, reducing food waste and empowering women within agriculture. In order to enact system-wide solutions, companies need to be more open to partnering with each other. According to the panelists, suppliers, retailers, and producers all need to focus on sustainability issues that affect the entire supply chain. Reducing food waste by focusing on responsibly sourcing food along the supply chain is one area where collaboration can make a difference. According to Christine Daugherty of PepsiCo, giving women the same access to resources that men currently enjoy would increase productivity by an estimated 20-30 percent, helping meet the ever-increasing demand for food. These solutions can be aided by the application of data-driven insights and embracing new technology. Good data allows policymakers and farmers to make more informed and effective decisions, while technology increasingly provides opportunities to improve implementation of solutions – from satellite imaging to banking for farmers.
In the last five years, the number of people going hungry globally has increased after decades of decline. With the effects of climate change disrupting agriculture across the globe, collaborative action needs to be taken now to reverse this trend. Introducing more diverse crops, embracing technology and education, and collaborating across the supply chain, can help reverse this trend and more sustainably feed a growing global population. While these interwoven challenges may seem insurmountable, our speakers reminded us of that our best chance of overcoming them is working together.