

On February 18, 2021, the United States Department of Agriculture (USDA) hosted a Dialogue entitled “*Youth Voices in Sustainable U.S. Food Systems*” focused on elevating the diverse voices of youth in agriculture to generate solutions for building more economically, socially, and environmentally sustainable food systems in the United States. This Dialogue informs the subsequent stages of the U.S. National Food Systems Dialogues and was submitted as a contribution to the UN Food Systems Summit.

This summary of the first Dialogue includes four sections:

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Dialogue structure and focus

This report represents the views of U.S. stakeholders, it does not represent the official views of the United States Department of Agriculture (USDA) or United States Government.

This Dialogue focused on identifying solutions for building more economically, socially, and environmentally sustainable food systems in the United States. The discussions centered on five main challenge areas aligned with the UN Food Systems Summit’s five “action tracks”:

1. *Safe and nutritious food for all:* What are some potential solutions to hunger and all forms of malnutrition and the incidence of non-communicable disease to enable all people to be nourished and healthy?
2. *Increased consumer demand for healthy diets that are sustainably produced:* What are some potential solutions to meet increasing consumer demand for healthy and sustainably produced foods? What are potential solutions to help reduce consumer food waste?
3. *Sustainable environmental production:* What are some potential solutions to help optimize environmental resource use in food production, processing and distribution, and reduce biodiversity loss, pollution, water use, soil degradation and greenhouse gas emissions?
4. *Equitable livelihoods across the food system:* What are potential solutions that would promote full and productive employment and decent work for all actors along the food value chain and enabling entrepreneurship and addressing the inequitable access to resources and distribution of value?
5. *Resilient food systems:* What are potential solutions that can ensure the continued functionality of sustainable food systems in case of natural disasters, pandemics, economic shocks, conflict, and other sources of instability?

To encourage a systematic assessment of challenges, each breakout discussion considered four general questions:

1. What are some potential *solutions*? What challenge does this solution address?
2. What is the *evidence* that supports the implementation of this solution? Does the evidence exist or are there knowledge and evidence gaps?
3. What are the *tradeoffs* among economic, social, and environmental sustainability objectives for this solution? What are the distributional characteristics if the solution were to be implemented? If the group discusses potential solutions that target one dimension of

sustainability (for example, social sustainability), what are the potential impacts on the other dimensions of sustainability?

4. What are points of *consensus or disagreement* amongst stakeholder groups about the solution?

Participants

USDA invited all youth participating in USDA's 2021 Agricultural Outlook Forum to take part in the youth dialogue. This included youth enrolled in a U.S. college or university including 1862 Land-grant institutions, 1890 Historically Black Land-grant institutions, Hispanic Serving Institutions, and other colleges and universities.

Forty-one students participated in the "*Youth Voices in Sustainable U.S. Food Systems*" Dialogue representing institutions from across the United States including: American University, Auburn University, California State University Bakersfield, California State University Stanislaus, Cornell University, Florida A&M University, George Mason University, Little Priest Tribal College, Mississippi State University, North Carolina A&T State University, Prairie View A&M University, Purdue University, Salish Kootenai College, South Dakota State University, Southern Illinois University Carbondale, Southern University and A&M College, Tennessee State University, Tuskegee University, University of Arizona, University of Colorado Boulder, University of Georgia, University of Illinois at Urbana-Champaign, University of Maryland, University of Massachusetts Medical School, University of Missouri Columbia, University of Pittsburgh, Virginia Tech, and Wharton School of the University of Pennsylvania.

Reporting integrity

Neutral USDA experts were trained to facilitate small group discussions during the Dialogue and emphasized respect and building trust. The Chatham House Rule of non-attribution (whereby comments are not attributed to any individual speaker or their affiliation) encouraged participants to engage in frank and collaborative discussion. Student volunteers were trained as notetakers prior to the Dialogue and sent anonymized notes from the small group discussions to facilitators for validation. This high-level summary is based on the individual summaries of the small group discussions. This summary is published on the official [UN Dialogues Gateway feedback form](#).

Findings

These findings represent the views of Dialogue participants, not those of the United States Department of Agriculture or the United States Government.

Participants explored opportunities for creating more sustainable food systems in the United States. The goal of the Dialogue was to enable a diverse set of youth in agriculture to work together – examining their food systems, exploring options for change, and identifying pathways for these systems to become more sustainable to meet evolving needs and challenges.

The focus of the "*Youth Voices in Sustainable U.S. Food Systems*" Dialogue was to identify solutions and pathways to improving the sustainability of U.S. food systems. While the topics were organized around the five UN Food Systems Summit Action Tracks outlined above, the discussions did not fall neatly into these tracks. Instead, participants broadened the discussions to holistically consider opportunities and tradeoffs across food systems and goals related to sustainability and resilience.

Some participants shared that having a background in food and agriculture, such as growing up on a farm or participating in an agriculture science curriculum in an urban school, informed the solutions they proposed. Four overarching **solutions** emerged from the Dialogue: 1) school-based nutrition and

agricultural education, 2) a web-based label scanning tool to provide clear and transparent information on the economic, social, and environmental impacts of food systems, 3) policies that promote soil health, urban agriculture, and reformed subsidy schemes implemented by diverse government agencies, and 4) improved prediction of agricultural supply chains through Artificial Intelligence (AI).

- **Solution #1: School-based nutrition and agricultural education:** Dialogue participants emphasized the need for increased early childhood nutrition education and agricultural education. Some participants emphasized that nutrition education should be multicultural in nature to reflect the cultures we have in the United States. Other participants agreed that agricultural education could unite rural, urban, and suburban communities. Participants also noted the opportunity to support education across different platforms including schools, existing nutrition education programs, and digital and social media platforms. Some participants hypothesized that agricultural education in public schools could increase awareness of environmental and food production challenges and opportunities to enable individuals to develop solutions. Some participants noted the lack of a cost benefit analysis to substantiate long-term financial investment in nutrition and agricultural education programs. Finally, participants stressed that lack of funding and the fact that implementing agricultural education could require reallocating resources away from other programs are key barriers to increasing agriculture and nutrition education.
- **Solution #2: Web-based label scanning tool:** Dialogue participants championed the creation of a web-based application (app) to provide transparent sustainability information to consumers. Some participants posited that upon scanning the food label, this app could provide economic (i.e., wages), social (i.e., farm labor, fair trade certification), and environmental (i.e., carbon footprint) information related to the product. According to some participants, this app might encourage consumers to choose value-based foods that are produced without damaging the environment and that respect the dignity of the workers who produce the foods. Some participants speculated that such foods might also positively impact local communities where they are produced. Some participants noted that it could be a challenge to compel food producers to share information about their food's effect on human health, the environment, and society. Some participants noted that tradeoffs could include the effect of the app on food prices, and barriers to implementation could include costs of development and collecting the necessary information.
- **Solution #3: Innovative policies and programs:** Dialogue participants stressed the importance of policy to achieve food equity for all, with programs implemented by a diverse group of government agencies that reflect the communities they serve. Some participants noted that programs could support soil health and urban agriculture, as well as work to enforce existing regulations like antitrust laws or develop new legislation to address systemic discrimination like the Justice for Black Farmers Act. Some participants emphasized that good soil practices could help capture and store carbon in soil and benefit plant and animal production and health. Participants also discussed how urban agriculture could mitigate greenhouse gas emissions by reducing the need to transport food and could also address urban food deserts. Some participants thought that USDA subsidy programs could be revamped to promote the production of healthier foods. Others noted that government outreach programs could build bridges between rural and urban communities and shape sustainable consumption behaviors. Some participants also noted evidence gaps including on the productivity of urban farming and data on the health outcomes for consumers of different diets.

- **Solution #4: Predictive food supply chain analytics:** Dialogue participants identified improving prediction through Artificial Intelligence (AI) as a solution. Some participants noted that an opportunity exists for U.S. food systems to better harness and share data to improve food distribution, reduce food loss and waste, and enhance precision agriculture. Some participants noted that improved use of data could allow stakeholders to learn from experiences such as the COVID-19 pandemic. Some participants noted a need for further evidence and research on the impacts of increased uptake of AI technology, and noted concerns that tradeoffs could include job loss, unintended consequences as ecosystems are not one size fits all, and social issues related to agricultural extension and education.

In all the discussion groups, participants discussed where they thought more **research or scientific evidence** is needed. Discussions highlighted the lack of good cost benefit analyses of existing food assistance programs, lack of information sharing regarding information on food sustainability, and a data gap on the health of farmers and agricultural supply chain workers. Additionally, some participants noted information gaps on the downstream effects of gene editing in livestock and a lack of data analyzing the types of subsidies needed to transition to more sustainable production systems. Some participants also raised challenges relating to the existence of inaccurate and difficult-to-understand information.

Dialogue participants also discussed **barriers to implementation** of the proposed solutions. All groups noted that the lack of financial resources can prevent the adoption of food systems solutions. Some participants noted that differing food preferences could prevent adoption of healthy diets, that difficulties with voluntary disclosure of information could prevent success of digital consumer-oriented tools, and that systemic barriers in education such as the inflexibility of standardized school curriculums could prevent growth of agricultural and nutritional education. Some participants identified barriers to implementation of urban agriculture including competing interests from retailers. Participants also hypothesized that barriers to improving the conditions of farmworkers included immigration status of workers and the outsized influence of certain industries and corporations. Some participants noted that financial and size limitations of farms could be barriers to implementation of new technologies.

Participants discussed the **tradeoffs** that might arise in building more sustainable food systems. Some participants noted that certain groups benefit more than others from food assistance, that digital tools like a web-based label scanning app could impact food prices, and that some urban agriculture systems can be energy intensive and have expensive startup costs. Additionally, some participants noted that sustainable agriculture practices may be costly and time-consuming to implement to achieve comparable productivity to conventional agriculture. Some participants raised the concern that automation of agriculture could displace labor. Finally, participants discussed the potential for unforeseen environmental consequences of innovation as ecosystems are not one-size-fits-all.

Points of **consensus or disagreement** included discussion on the value of increased education for sustainable and healthy diets and making healthy choices easier for consumers. Some participants agreed that strengthening the ability to deliver food in emergency situations is important for the food security of low-income families. While some participants agreed that the government could play a greater role in outreach on nutrition and agriculture programs, other participants speculated that government interventions could lead to community pushback due to a lack of trust. Some participants noted that local food systems could be a solution to food waste, while other participants noted that access to global markets is key to ensuring food security and combatting economic shocks. Participants also noted that raising awareness of innovative technology can increase adoption of potentially beneficial technology for those initially skeptical.