

Food, Farming and Sustainability Conference

International Affairs Building (Room 1501), Columbia University

Thursday, September 13			
Time	Topic	Speaker(s)	Moderators
8:30-9:00am	Registration	--	--
9:00-9:15am	Welcome/Introduction	Pamela Smith (Columbia University) Shahid Naeem (Columbia University) Sara Tjossem (Columbia University)	--
9:15-10:00am	Session 1: A Brief History of Food Systems	Chris Otter (The Ohio State University)	Alma Igra (Columbia University)
10:00-10:45am	Session 2: Women in Agriculture	Danielle Nierenberg (Food Tank) Karen Karp (Karen Karp & Partners) Karen Washington (Rise and Root Farm)	Lauren Wilson (Edible Manhattan)
Coffee Break: 10:45-11:00am			
11:00-11:45am	Session 3: Food Access	Anupama Joshi (National Farm to School Network)	Sharon Akabas (Columbia University)
11:45-12:30pm	Session 4: Food Justice: What Relevance Does It Have?	Karen Washington (Rise and Root Farm)	Eleanor Sterling (American Museum of Natural History)
Lunch: 12:30-1:30pm			
1:30-2:15pm	Session 5: Global Food Security: What Role for Livestock?	Sarah McKune (University of Florida)	Tiff Van Huysen (Columbia University)
2:15-3:00pm	Session 6: Climate, Development and Food Systems	Edward Carr (Clark University)	Lauren Betz (Food for All)
3:00 -3:45pm	Session 7: Sustainability of Farming	Shahid Naeem (Columbia University)	Jeffrey Potent (Columbia University)
Coffee Break: 3:45-4:00pm			
4:00-4:45pm	Session 8: Cross-Sector Engagements: Solutions for the Way Forward	Karen Karp (Karen Karp & Partners)	--

Conference Organizers

Shahid Naeem

Professor and Chair in the Department of Ecology, Evolution, and Environmental Biology and Director of the Earth Institute Center for Environmental Sustainability; Columbia University

Shahid Naeem is Professor of Ecology in the Department of Ecology, Evolution, and Environmental Biology and Director of the Earth Institute Center for Environmental Sustainability at Columbia University. He obtained his PhD from the University of California at Berkeley, was a postdoctoral fellow at Imperial College of London, the University of Copenhagen, and University of Michigan. He has served on the faculty of the University of Minnesota, the University of Washington, and currently serves on the Faculty of Arts and Sciences and the Earth Institute at Columbia University. Recipient of the Ecological Society of America's Buell and Mercer Awards and the Lenfest Distinguished Faculty award at Columbia University, he is also a fellow of the American Association for the Advancement of Science and an Aldo Leopold Leadership fellow. Considered among the "World's Most Influential Scientific Minds" in environmental and ecological science by Thompson Reuters in 2016, his teaching, research, and publications focus on the importance of biodiversity in the functioning of ecosystems and the services they provide humanity.

Sara Tjossem

Senior Lecturer in Discipline of International and Public Affairs; Columbia University

Sara Tjossem is a Senior Lecturer in the School of International and Public Affairs, Columbia University, and Associate Director of Curriculum for the MPA Program in Environmental Science and Policy. At Columbia she teaches environmental policy and the history of science. Her training in both the natural sciences and the history of science informs her research and teaching on environmental policy and politics. Her most recent book, *Fostering Marine Science and Internationalism: The Journey with PICES, the North Pacific Marine Science Organization* (Springer, 2017), describes the development and growth of a leading marine intergovernmental science organization.

Pamela H. Smith

Seth Low Professor of History and Founding Director of The Center for Science and Society; Columbia University

Pamela H. Smith is Seth Low Professor of History at Columbia University and Founding Director of the Columbia Center for Science and Society. At Columbia, she teaches history of early modern Europe and the history of science. She is the author of *The Business of Alchemy: Science and Culture in the Holy Roman Empire* (Princeton 1994; 1995 Pfizer Prize), and *The Body of the Artisan: Art and Experience in the Scientific Revolution* (Chicago 2004; 2005 Leo Gershoy Prize). Her work on alchemy, artisans, and the making of vernacular and scientific knowledge has been supported by fellowships at the Wissenschafts-Kolleg, as a Guggenheim Fellow, a Getty Scholar, a Samuel Kress Fellow at the Center for the Advanced Study of the Visual Arts in Washington, DC, and by the

National Endowment for the Humanities, the Andrew W. Mellon Foundation, and the National Science Foundation.

Session 1: A Brief History of Food Systems

Moderator: Alma Igra

PhD Candidate in European History; Columbia University

Alma Igra is a PhD candidate in European history. She is writing her dissertation on the rise of scientific nutrition in the British Empire and in the League of Nations. She earned her MA at the Central European University and her BA in Tel Aviv University. Alongside her academic work, Alma has been involved in public history and museum work related to history of food and immigration.

Speaker: Chris Otter

Associate Professor in the History Department; The Ohio State University

Chris Otter is Associate Professor of History at The Ohio State University. He is the author of *The Victorian Eye: A Political History of Light and Vision in Britain, 1800-1910* (University of Chicago Press, 2008). He is currently completing *Diet for a Large Planet: Food Systems, World Ecology and the Making of Industrial Britain*, which will also be published by the University of Chicago Press.

Speaker Abstract: This talk provides a synoptic overview of the history of food systems. It begins by providing a basic and loose definition of food systems as ecotechnical complexes, which produce, process and distribute food. Food systems are the very basis of the spatial division between urban and agrarian zones: human society and power relations have been built upon their control for several thousand years. The remainder of the paper is broken into two sections. The first of these sections offers a schematic history of different food systems: *early urban-agrarian* (c.5000 BCE-1500 AD), *mercantile* (c.1500-1800), *settler-colonial* (c.1800-1945), and *productivist/neoliberal* (c.1945-today). The historical trend here was towards larger-scale, longer-distance, more energy-intensive and technologically complex systems that knitted the most distant parts of the planet together. The second section explores three emergent problems or unintended consequences generated by these systems, revolving around *security, health, and ecology*. The ability to control and mobilize large food systems is geostrategically essential, as both World Wars demonstrate. Moreover, by producing and maintaining large calorific imbalances between the developed and the developing world, they functioned as technologies of slow violence, as evinced by the globalization of famine in the later nineteenth century. Such systems secured the most reliable stream of calories the world has ever seen, making modern Western nations better fed than any people in history, yet they also produced negative health consequences, from obesity to emerging foodborne pathogens. Finally, the paper discusses the ecological implications of massive world food systems: fossil fuel dependence, monocultures, soil erosion, species extinction and mass application of nitrates and phosphates. A history of food systems, the paper concludes, is inseparable from a history of planetary power relations, the epidemiologic transition, and the Anthropocene.

Session 2: Women in Agriculture

Moderator: Lauren Wilson

Editor-in-Chief, Edible Manhattan

Ariel Lauren Wilson is the Editor-in-Chief of Edible Manhattan and Edible Brooklyn. She's also the programming director for Food Loves Tech and a 2018 Stone Barns Center for Food & Agriculture fellow.

Speakers:

(1) Karen Karp

President; Karen Karp & Partners

Karen Karp is a fourth-generation food entrepreneur. Her great grandfather Morris, a first-generation immigrant from Ukraine, opened a butter, eggs, and cheese wholesale outlet on Manhattan's far west side, and later a feed and seed company on Coney Island Avenue in Brooklyn. In the 1930s the family relocated to Farmingdale, Long Island, where Karen's grandfather transitioned Morris Karp & Son into Long Island's first commercial manufacturer and distributor of fertilizer. After the sale of the company, Karen's father Alan continued to serve the farmers of Long Island's East End as a real estate broker concentrating on industrial and agricultural properties and brokered the country's first Transfer of Development Rights deal in the 1970s. Karen grew up visiting the farms with her father, but felt the irresistible pull of New York City, where she moved in 1978 to attend Parsons School of Design. Restaurant jobs put food on the table and captured her heart, and by the age of 29, Karen had grown a trendy downtown restaurant group from one to six outlets, before setting her sights on entrepreneurship. Establishing Karen Karp & Partners in 1990 (as Karp Resources), Karen developed interests that would soon become the company's well-regarded niche: developing a range of bespoke strategies that explore the interconnections between agriculture, food, policy and people, and how to marry common interests of the for-profit and nonprofit sectors. In 2001 Karen obtained a master's degree from the University of Bath School of Management, earning honors for her thesis, "How Does Food Sustain Us?" which explored how leaders convey and impart their personal food values within their organizations, and how these communities are then transformed through food. KK&P has grown to become a nationally respected boutique consultancy with a uniquely skilled staff and a diverse roster of clients. Karen and her team are equally adept in the boardroom, in the kitchen, or on the land – their systems-based approach is always both conceptually rigorous and grounded in practical understanding. Karen's real success is measured by her ability to change the way a wide range of people – corporate executives, school officials, distributors, educators, and farmers – think about how food can be produced, processed and distributed, and how she encourages them to overcome challenges and pursue innovation.

(2) Danielle Nierenberg

President; Food Tank

Danielle Nierenberg co-founded Food Tank, a 501(c)(3) non-profit organization, in 2013 as an organization focused on building a global community for safe, healthy, nourished eaters. Prior to

starting Food Tank, Danielle spent two years traveling to more than 60 countries across sub-Saharan Africa, Asia, and Latin America, meeting with farmers and farmers' groups, scientists and researchers, policymakers and government leaders, students and academics, along with journalists, documenting what's working to help alleviate hunger and poverty, while protecting the environment. Danielle has authored or contributed to several major reports and books and her knowledge of global agriculture issues has been cited widely in more than 8,000 major print and broadcast outlets worldwide. Danielle has an MS in Agriculture, Food, and Environment from the Tufts University Friedman School of Nutrition Science and Policy and spent two years volunteering for the Peace Corps in the Dominican Republic.

(3) Karen Washington

Community activist, gardener and farmer; Rise and Root Farm

Karen Washington has lived in New York City all her life, and has spent decades promoting urban farming as a way for all New Yorkers to access to fresh, locally grown food. As a community gardener and board member of the New York Botanical Gardens, Karen has worked with Bronx neighborhoods to turn empty lots into community gardens. As a member of La Familia Verde Garden Coalition, she helped launched a City Farms Market, bringing fresh vegetables to her neighbors. Karen is the Just Food board Chair and a Just FoodTrainer, leading workshops on food growing and food justice to community gardeners all over the city. Karen is a Why Hunger board member and the former president of the New York City Community Garden Coalition, a group that was founded to protect and preserve community gardens. She co- founded Black Urban Growers (BUGS), an organization of volunteers committed to building networks and community support for growers in both urban and rural settings and has been key to Farm School NYC, whose mission is to train NYC residents in urban agriculture. In 2012, Ebony magazine voted her one of their 100 most influential African Americans in the country. In 2014, she received the James Beard Leadership Award. Since retiring from Physical Therapy in 2014, Karen is Co-owner/Farmer at Rise & Root Farm, a 3 acre farm in Chester, NY. "To grow your own food gives you power and dignity. You know exactly what you're eating because you grew it. It's good, it's nourishing and you did this for yourself, your family and your community."

Panel Abstract: This panel discussion will highlight how women from different backgrounds--urban agriculture, academia, the private sector, and non-profits--are working to cultivate equality in the food system. We will explore questions such as: As women making food systems change, what have been some of the most valuable skills and/or resources in helping you advance your work? How do you seek to empower other women in your work? Where do you see opportunities for progress in the food system? What would be your advice to women who are starting out in food systems work?

Session 3: Food Access

Moderator: Sharon R. Akabas

Director, MS in Nutrition, Associate Director for Educational Initiatives; Columbia University

Dr. Akabas received her BA from Oberlin College, an MA in Exercise Physiology from Teachers College, and an MS and PhD in Nutrition from Columbia University. During the past 35 years, she has taught more than 20 nutrition related courses at Columbia, ranging from, "The Biochemical and

Physiological Bases of Nutrition to Women and Weight," to "Obesity: Etiology, Prevention and Treatment." Most recently she is focusing on applying systems thinking to undergraduate and graduate food related courses at Columbia. This led to working with Dr. Eleanor Sterling to form a Community of Practice that focuses on applying systems thinking to food systems teaching. Dr. Akabas currently is the Director of the MS in Nutrition program at The Institute of Human Nutrition. In her spare time her most favorite thing to do is to backpack with her family. If asked to change professions, she would be a field biologist in a variety of landscapes and climates. However, she can't imagine loving her work more than she does now.

Speaker: Anupama Joshi

Executive Director and Co-Founder; National Farm to School Network

Anupama is the Executive Director & Co-Founder of the National Farm to School Network. Ms. Joshi co-founded the organization in 2007, to serve as an information, advocacy, and networking hub for communities working to bring local food sourcing and food and agriculture education into school systems and early care and education sites. Ms. Joshi is a recognized leader in the field of farm to school, food justice, and local and regional food systems. She is co-author of *Food Justice* (MIT Press, 2010) and led the development of "*Evaluation for Transformation*" – a pioneering cross-sectoral framework for farm to school research and evaluation. Ms. Joshi has been engaged with nutrition, agriculture and food systems issues in various countries around the world. She has worked with the Food and Agriculture Organization (FAO) of the United Nations, the Pesticide Action Network; and consulted with various non-profit organizations in Asia. She is a Steering Committee member of the North Carolina Farm to School Coalition, an Advisor for the Blue Sky Funders Forum, USDA's Farm to School Census and Comprehensive Review Group, and is a Mentor for the Food Systems Leadership Network. She has previously served on the board of directors for FoodCorps and the Community Alliance with Family Farmers. She loves to travel, and cook, especially with her son.

Speaker Abstract: Access to healthy food is a challenge, most pronounced in low-income communities of color, and disparities exist in the quality, variety, quantity, and price of food available. Farm to school is a strategy that provides opportunities to support equitable access in the existing food system via engagement in K-12 and early care and education (Farm to ECE) settings. The three core elements of farm to school offer distinct approaches for this: (1) Procurement of local foods provides access to healthier school meals to more than 31 million students and promotes opportunities for income generation and access to land ownership for marginalized food producers; (2) School gardens are ripe with lessons that foster benevolence and compassion and offer a space for community engagement and partnerships with those who typically do not participate in the school system; (3) Education about food and farming is a proven approach for elevating the value of local agriculture and lifting up under-represented stakeholders in the food system.

Session 4: Food Justice - What Relevance Does it Have?

Moderator: Eleanor Sterling

American Museum of Natural History, Jaffe Chief Conservation Scientist

Dr. Eleanor Sterling is Jaffe Chief Conservation Scientist at the American Museum of Natural History's Center for Biodiversity and Conservation. Building on her interdisciplinary training and over 30 years of field experience in Africa, Asia, Latin America, and Oceania, her work focuses on the intersection between biodiversity, culture, and languages; the factors influencing ecological and social resilience; and the development of indicators of wellbeing in biocultural landscapes. She is currently working on collaborative research to better understand and manage foodscapes in Solomon Islands. She co-curated the Museum's travelling exhibition: *Our Global Kitchen: Food, Nature, Culture*, a wide-ranging exhibition that explores a suite of issues related to our global food systems. Dr. Sterling also serves as Core Affiliated Professor, Department of Ecology, Evolution, and Environmental Biology, Columbia University, New York, where she teaches courses on conservation biology; biocultural diversity; and Food, Ecology and Globalization. Dr. Sterling received her B.A. from Yale College and a joint Ph.D. in Anthropology and Forestry and Environmental Studies from Yale University.

Speaker: Karen Washington

Community activist, gardener and farmer; Rise and Root Farm

See Bio for Session 2

Speaker Abstract: In Today's food system, we often hear the term Food Justice being used to describe the escalating problems surrounding hunger, poverty and governance. Add in Food sovereignty, you now have broadened your scope globally. Yet, many see that both terms have lost their true meaning either by being used repetitively with no regard to justice, or the fact that both have been co-opted, passively embellished linguistically to make oneself sound in the know. One cannot stand for justice if you are not actively engaged in combating injustice. Let's discuss and rediscover the true meaning of Food Justice as an agent of power and Food sovereignty as a global movement.

- Where it all begins: Food and its intersection
- Food Justice: its meaning or lack of
- The relationship between Food Justice and Food sovereignty
- Injustice indicators
- Back on the right track: Food Justice locally. Food Sovereignty: globally.

Session 5: Global Food Security: What Role for Livestock?

Moderator: Tiffany Van Huysen

Columbia University, The Earth Institute of Environmental Sustainability

Dr. Tiff van Huysen has a PhD in ecosystem ecology with over ten years of experience teaching and conducting research in the fields of botany, forest ecology, and soil science. After completing a postdoc, Tiff worked for the United States Department of Agriculture (USDA) Forest Service

managing an applied research program. She recently returned to school to pursue her interest in working at the interface of the physical and social sciences, graduating from the MA Program in Climate and Society at Columbia University in 2016. Her academic endeavors at Columbia University integrated studies of sustainable development, conflict and peacebuilding, human rights, and gender equality within the context of climate change and natural resource management. While at Columbia, she has served as a guest lecturer and teaching assistant for both the MA Program in Climate and Society and the Summer Ecosystem Experiences for Undergraduates (SEE-U) Agroecosystems course and also taught a course on climate change for The Earth Institute Center for Environmental Sustainability (EICES) Executive Education Program. Tiff also served as a consultant for the ClimaSouth project to conceptualize and design a Center of Excellence for Climate Change in Egypt and as a consultant for the CGIAR Climate Change, Agriculture and Food Security (CCAFS) program to examine the intersection of gender and the provision of climate services for smallholder farmers. She currently manages the EICES Executive Education Program, is serving as a guest editor for Climate Risk Management, and is co-authoring a primer on the environmental sustainability of food and farming.

Speaker: Sarah McKune

Assistant Professor in the Department of Environmental and Global Health; University of Florida

Speaker Abstract: Food security has been defined as the condition in which all people, at all times, have physical, social and economic access to sufficient safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life. Food security is an essential component of overall nutrition and is threatened in populations around the world by complex underlying and interrelated factors, including poverty, poor environmental conditions, and social constraints. In the coming years, climate change, population growth, and the global economy are likely to further threaten food security, particularly among the 800 million people living in extreme poverty. The role of livestock in the future of sustainable development is a subject that has garnered much attention, having focused largely on the negative impact of livestock production on the environment. However, animal source foods (ASF) such as milk, meat, and eggs, play an important role in global food security. ASF have unique nutritional qualities essential for the growth and development of children, and the livestock that produce these foods meaningfully contribute to the ability of vulnerable populations to meet other indicators of sustainable development, including poverty reduction and gender equality. Thus, any effort to understand sustainable food security must carefully consider the role of livestock and animal source foods.

Session 6: Climate, Development and Food Systems

Moderator: Sabine Valenga

Food for All, Co-Founder

Sabine Valenga is a designer and food-tech entrepreneur. She graduated in Curitiba, Brazil and holds a MSc. degree in Architectural Design from Columbia University, where she focused her studies on how technology and design generate a positive impact in our urban ecosystems. After practicing for 2 years as an architect, curator, and teacher, she co-founded Food for All, an app tackling food waste and food accessibility by selling restaurants' surplus meals at a deep discount.

Speaker: Edward R. Carr

Director and Professor, International Development, Community, and Environment Department and the Humanitarian Response and Development Lab; Clark University

Edward R. Carr is a professor and Director of the International Development, Community, and Environment Department at Clark University. He also directs the Humanitarian Response and Development Lab (HURDL) in the George Perkins Marsh Institute at Clark. He has held several academic and professional positions in the world of development. These include assistant and associate professor of Geography at the University of South Carolina, climate change coordinator for the Bureau for Democracy, Conflict and Humanitarian Assistance (DCHA) at the United States Agency for International Development, and climate change science advisor on the Climate Change Team in the Bureau for Economic Growth, Education and the Environment (E3) at USAID. He is a visible member of the global environmental and international development policy communities, authoring several global environmental assessments including the upcoming Intergovernmental Panel for Climate Change (IPCC) Sixth Assessment Report. For more than 20 years he has worked in sub-Saharan Africa on issues of development, adaptation to climate change, and the changing global environment, living among and working with various rural communities. He is the author of more than 60 publications and reports and has received over \$2 million in grants and contracts to support his work and the work of HURDL. His current work explores the dynamics of livelihoods and socio-ecological systems, with particular foci in providing weather and climate information to farmers to build their resilience to contemporary and future economic and environmental change, enhancing women's role in forest governance to conserve these critical ecosystems, and improving the gender components of global food security efforts to more effectively address the challenge of global hunger.

Speaker Abstract: Much of the discussion around future food security rests on projections of expected future demand, shaped by population and income growth. Typically, climate change impacts are factored into these conversations as barriers to the yield increases needed to meet that demand. This framing reduces food security to availability, one pillar of the three (access and utilization) that are now widely understood to shape food security outcomes. It privileges solutions that rely on the reengineering of complex agrarian agroecologies to maximize yields. There is considerable evidence to suggest that such efforts introduce considerable risk to those living in agrarian settings, and are not producing the yield increases that might justify such risk. However, the intersection of these issues can be read another way, one more likely to produce constructive outcomes. If approximately 40% of all food produced annually is lost to waste, much of the food we will need in the future is already here. By turning our focus to the food systems in which agrarian production takes place, we can identify opportunities to minimize loss (such as through improved transportation infrastructure), more productively plan for the future impacts of climate change on human well-being, and avoid the complex risks associated with agroecological engineering.

Session 7: Sustainability of Farming

Moderator: Jeffrey Potent

Adjunct Professor of International and Public Affairs; Columbia University

Jeffrey Potent, Adjunct Professor of International and Public Affairs, teaches corporate sustainable development, sustainable agriculture, and related subjects at the School of International and Public Affairs and the Earth Institute. He hosts an annual forum on sustainable agriculture and is an active contributor to the Columbia University Seminar Series on Sustainable Finance. Mr. Potent formerly led corporate partnerships for the US Environmental Protection Agency (EPA), Office of Water in Washington DC. Earlier in his career, he served as EPA/US Department of Agriculture (USDA) liaison and regional director of the USDA National Integrated Water Quality Program, facilitating collaboration among Land Grant Universities, EPA, USDA, industry associations and other agencies and universities.

Speaker: Shahid Naeem

Professor and Chair in the Department of Ecology, Evolution, and Environmental Biology and Director of the Earth Institute Center for Environmental Sustainability; Columbia University

Shahid Naeem is Professor of Ecology in the Department of Ecology, Evolution, and Environmental Biology and Director of the Earth Institute Center for Environmental Sustainability at Columbia University. He obtained his PhD from the University of California at Berkeley, was a postdoctoral fellow at Imperial College of London, the University of Copenhagen, and University of Michigan. He has served on the faculty of the University of Minnesota, the University of Washington, and currently serves on the Faculty of Arts and Sciences and the Earth Institute at Columbia University. Recipient of the Ecological Society of America's Buell and Mercer Awards and the Lenfest Distinguished Faculty award at Columbia University, he is also a fellow of the American Association for the Advancement of Science and an Aldo Leopold Leadership fellow. Considered among the "World's Most Influential Scientific Minds" in environmental and ecological science by Thompson Reuters in 2016, his teaching, research, and publications focus on the importance of biodiversity in the functioning of ecosystems and the services they provide humanity.

Speaker Abstract: Food and agricultural sustainability is a function of environmental, social, and economic sustainability. This integration, however, can lead to a disconnect from the foundations of natural science that inform environmental sustainability. In this presentation, we will explore production from an environmental, social, and economic perspective, and consider how they can be sensibly linked to ecological principles. Without a strong natural science underpinning, progress towards sustainable development goals will be slow - something we cannot afford in our rapidly changing world.

Session 8: Cross-Sector Engagements: Solutions for the Way Forward

Speaker: Karen Karp

President, Karen Karp & Partners

See Bio for Session 2

Speaker Abstract: For our concluding session, Karen Karp, Founder and President of Karen Karp & Partners, a food and agriculture consultancy, will capture the day's discussions in a summary portrait of the key themes, specific projects, and questions asked and answers offered throughout



the day. She will offer additional perspectives and contexts for participants, speakers, and organizers to consider to take away, reflect, and set a course of action based on the day's experience.