

 ${f 7}$ Projects to Make Progress on Ethics and Global Food Security in ${f 5}$ Years









This project is funded by the Stavros Niarchos Foundation



INTRODUCTION

With the world's population likely to exceed 9.5 billion by 2050, the global community faces an enormous challenge — how to ensure everyone will have enough nutritious and safe food to secure a desirable level of health.

Ensuring that every individual has affordable access to sufficient and nutritious food is a profoundly important and consensual moral imperative. However, while there is no debate about the moral imperative to feed the world, there are contested visions of what it means to feed the world ethically. Disagreements exist about what values, beyond human health, should be taken into account, what trade-offs (if any) between values are justifiable in the short- and long-term, and what systems and strategies for the production, distribution, marketing, selling, and consumption of food are ethically acceptable.

For some, feeding the world ethically means ensuring universal access to what is needed nutritionally for human survival and mitigating hunger. For others, it is securing food of sufficient quantity and quality for a decent life, a healthy life, or even a high quality of life. Still others widen the lens to include the welfare and rights of agricultural workers and farmers, the environment, or the well-being of non-human animals. And still others focus on protecting choice in the marketplace or on respecting cultural and national traditions and ways of life.

The challenge for ethically acceptable global food security is to find a path forward, where tangible progress on ethical issues and disagreements in global food policy and practice is possible even in the absence of consensus about relevant values and permissible means.

This is the challenge taken up by the Global Food Ethics Project.

Over three years, we undertook what has not previously been done — to have a diverse, international, and influential Working Group of experts construct a research and policy agenda for global food ethics that would make an important, practical contribution to global food security and human well-being.



THE CONTRIBUTORS

The Global Food Ethics Project team, advisors, and other Working Group participants included international experts in agronomy, animal welfare, anthropology, bioethics, climate change, economics, environmental sustainability, food safety, human nutrition, philosophy, plant breeding, and plant genetics.

Traveling from Asia, Europe, North America, and South America to attend the *Feeding the World, Ethically* meeting, the Working Group spent four days in October 2014 sequestered in Ranco, Italy.

The charge to this group was straightforward but daunting — to identify core ethical issues that are of critical importance to global food security and on which real progress could be made in three to five years.

FEEDING THE WORLD, ETHICALLY WORKING GROUP

Project Team:

- **Ruth Faden, PhD, MPH**, Co-Principal Investigator, Johns Hopkins Berman Institute of Bioethics
- Sara Glass, RD, Project Coordinator, Johns Hopkins Berman Institute of Bioethics
- **Alan Goldberg, PhD**, Co-Principal Investigator, Johns Hopkins Bloomberg School of Public Health
- Yashar Saghai, MA, PhD, Project Director, Johns Hopkins Berman Institute of Bioethics
- **Robert Thompson, PhD**, Co-Principal Investigator, Johns Hopkins School of Advanced International Studies

Project Advisors:

- David Fraser, CM, PhD, Animal Welfare Program, University of British Columbia
- **Per Pinstrup-Andersen, PhD**, Division of Nutritional Sciences, Cornell University
- *Madison Powers, JD, DPhil, Kennedy Institute of Ethics and Department of Philosophy, Georgetown University

Other Working Group Members:

- **Bina Agarwal, PhD**, Institute for Development Policy and Management, University of Manchester
- Anne Barnhill, PhD, Department of Medical Ethics & Health Policy, University of Pennsylvania
- Antônio Salazar P. Brandão, PhD, Department of Economic Analysis, State University of Rio de Janeiro, Brazil
- **Sylvie Brouder, PhD**, Department of Agronomy, Purdue University

- Ettore Capri, PhD, Institute of Agricultural Chemistry and Environment, Università Cattolica del Sacro Cuore, Piacenza, Italy
- *Kenneth G. Cassman, PhD, Department of Agronomy and Horticulture, University of Nebraska- Lincoln
- William Easterling, PhD, College of Earth and Mineral Sciences, The Pennsylvania State University
- **Jessica Fanzo, PhD**, Institute of Human Nutrition, Columbia University
- *Charles Godfray, CBE FRS, The Oxford Martin Programme on the Future of Food, University of Oxford
- David Groenfeldt, PhD, Water-Culture Institute and Department of Anthropology, University of New Mexico
- Michael Lipton, D.Litt., Poverty Research Unit, University of Sussex
- Clare Narrod, PhD, Joint Institute for Food Safety and Applied Nutrition, University of Maryland
- Pamela Ronald, PhD, Department of Plant Pathology and the Genome Center, University of California, Davis
- **Richard Visser, PhD**, Plant Breeding, Wageningen UR, Netherlands
- John Wilkinson, PhD, Graduate Center for Development, Agriculture and Society (CPDA), Federal Rural University, Rio de Janeiro, Brazil
- *Ruqian Zhao, PhD, Veterinary Medicine, Nanjing Agricultural University, China

^{*}unable to attend Feeding the World, Ethically meeting

THE PROCESS - COMMISSIONED PAPERS

To enable the Working Group to meet its charge, each Working Group member was interviewed at length prior to the meeting. 14 Working Group members were also commissioned to write papers that, in addition to helping to fill critical gaps in the literature, established a common floor of knowledge for the meeting process.

NUTRITION AND HUMAN HEALTH

Ethical Issues for Human Nutrition in the Context of Global Food Security

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Jessica Fanzo

Response to Jessica Fanzo's "Ethical Issues for Human Nutrition in the Context of Global Food Security"

Anne Barnhill

Risk Evaluation and Occupational Exposure in Agriculture

Ettore Capri

Ethical Issues for Food Safety in the Context of Global Food Security

Clare Narrod

THE GLOBAL AGRIFOOD SYSTEM

Food Security and the Global Agrifood System: Ethical Issues in Historical and Sociological Perspective **John Wilkinson**

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Principles and Perceptions: the Invisible Hands in Food Security Outcomes

Bina Agarwal

Brazilian Agriculture and Ethical Issues Associated with Food Security

Antônio Salazar P. Brandão

Comments on John Wilkinson's "Food Security and the Global Agrifood System: Ethical Issues in Historical and Sociological Perspective"

David Groenfeldt

FARMLAND ACCESS AND SMALLHOLDER AGRICULTURE

Farmland Access Ethics, Land Reform, and Food Ethics

Michael Lipton and Yashar Saghai

Between State Policies and Social Movements Does the Smallholder Have a Voice?

Bina Agarwal

This paper is largely based on: Agarwal, Bina. 2014. "Food Sovereignty, Food Security and Democratic Choice: Critical Contradictions, Difficult Conciliations." *Journal of Peasant Studies* 41(6): 1247-1268.

Contract Farming and the Global Land Grab

Madison Powers

FARM ANIMAL WELFARE

Animal Welfare and Intensive Animal Production: A New Model for Change

David Fraser

Portions of this article are based on: Fraser, David. 2014. "Could Animal Production Become a Profession?" Livestock Science 169: 155-162.

Farm Animal Welfare and Human Health

Alan M. Goldberg

FOOD NEED, DEMAND, AND SUPPLY

Global Food Security and the Ethics of Ensuring Adequate Food Production Capacity

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Kenneth G. Cassman and Yashar Saghai

To learn more about these commissioned papers, visit www.bioethicsinstitute.org/globalfoodethics.

THE PROCESS - MORAL MAPS

Guided by the interviews, a critical analysis of the literature, and the commissioned papers, the project team developed "moral maps" of issues and disagreements in global food security and food systems that are, in whole or in part, distinctively ethical. The primary purpose of the moral maps was to serve as the starting point for the daily discussions at the *Feeding the World, Ethically* meeting.

Some of the ethical issues identified on the moral maps are hotly debated and have given rise to formal disagreements between opposing camps. Others are widely recognized as morally important and are not so much contested as unresolved. And still others highlight problems that have so far gone unacknowledged.

Though not exhaustive of any and all potential ethical issues, the maps capture many of the most pressing moral concerns in global food security and food systems. A total of more than 200 issues were identified, divided into seven topic areas.

Here are three examples from each.

The full version of the moral maps can be found on our webpage: www.bioethicsinstitute.org/globalfoodethics.

¹Because there is no standard distinction in philosophy between "moral" and "ethical," we use these adjectives interchangeably.

Human Population Health and Nutrition

- Extent and nature of the moral obligations of both farmers and the agrifood industry for the safety and nutritional value of the food they produce and market; for industry, whether/how these obligations extend to suppliers/ partners along the food chain (with or without formal contracts)
- Discriminatory perceptions which may lead to a systematic undervaluation of the contributions, needs, or abilities of women and girls and other disadvantaged groups; extent to which these have serious adverse implications for their food and nutritional security
- Ethical significance of the claim that consumption of animal-source foods provides micronutrients that are critical to human health, difficult to obtain from plant-sourced foods, and virtually impossible to do so on a global scale

- Governments' obligation (if any) to provide farmers and their families meaningful opportunities when they are transitioning out of farming; moral impermissibility, permissibility, or desirability of policies for pursuing this goal
- Moral permissibility of different objectives for agricultural subsidies; in particular, protecting ways of living, landscapes, and economic interests
- Conditions under which vertical integration is compatible with economic arrangements that offer farmers, farmworkers, and workers along the food value chain fair compensation; arrangements which might take unfair advantage of them

Projections of Food Need, Demand, and Supply......

- Moral significance and implications of food projections; potential for harm and injustice when projections miss the mark but play a role in government
- Moral importance of projections making explicit the assumptions upon which their models rely; recognition that many of these assumptions have ethical implications or are not ethically neutral
- In alternative scenarios projecting food demand, what assumptions about consumption patterns are compatible with the obligations of, and limits to, state action to modify dietary patterns at the population-level







Crop Production

- Extent to which broadening the range of farming techniques under consideration (beyond conventional versus organic, such as integrated farming) can help redefine ethical issues and disagreements on crop production
- Moral implications of knowledge gaps in agriculture (e.g., best practices for the use of certain pesticides, agrochemical packages); assignment of responsibility for supporting research designed to build evidence to fill knowledge gaps that are of special ethical significance
- Extent to which moral disagreements over the use of transgenic crops can be lessened if these crops result from public research, private-public partnerships, or are made widely available by for-profit companies at an affordable price

Animal Agriculture and Animal Welfare

- If intensification is necessary for food security: circumstances (if any) in which intensification can meet animal welfare concerns
- Ethical challenges posed by the development of cell culture techniques for the production of animal protein; alternatively, extent to which cell culturing may be a viable technological fix to current moral objections to animals as human food (based on animal welfare/rights or environmental degradation)
- Moral implications of the potential for exacerbation of disadvantage for people who live and own property in proximity to intensified animal operations, most/ many of whom are low income (e.g., from decrease in value of land and homes)

Environment, Food Systems, and Agriculture

- Principles for fair distribution of the burdens of adaptation to and mitigation
 of climate change in agrifood sector among different actors (e.g., farmers,
 vertical integrators, agroindustry, distributors, consumers), different countries
 (e.g., high-income versus middle- and low-income countries), and different
 generations
- Nature and demandingness of moral constraints on the use of natural resources (renewable and nonrenewable) for agriculture
- Ethically permissible, desirable, or required systems of property rights over access to water for agricultural use

Economics and the Global Agrifood System ----

- Conditions under which subsidies of agricultural products are ethically problematic in the context of international trade
- Extent to which the current and future contribution of large scale agricultural and food marketing firms to food security is undervalued in ethical debates
- Ethics of emerging forms of market organization; in particular, the distributional effects (asymmetry of power and control over key decisions) of vertical and horizontal market concentration in agriculture and food, from seed to shelf









THE PROCESS - THE MEETING

The moral maps were shared with Working Groups members prior to the *Feeding the World, Ethically* meeting. The specific task given to the Working Group was to establish a near term research and policy agenda for global food ethics that can help in practical ways to advance the goal of feeding the world ethically.

In order to accomplish this task, the process at the meeting differed sharply from a typical conference format in which prepared papers are presented and discussed. The meeting consisted of seven core working sessions organized around the seven territories identified in the moral maps. Core sessions ranged from 75-120 minutes in length.

At each core session, Working Group members were asked to propose one issue or cluster of issues, from the corresponding moral map or otherwise, as a candidate for the research and policy agenda. Working Group members used three criteria to select and defend their candidate issue. An issue had to:

- 1. involve a genuine ethical problem;
- 2. be important to advancing the goal of global food security ethically; and
- 3. be tractable.

For our purposes, we deemed an issue tractable if Working Group members could make a case for a concrete plan to solve, ease, or manage that issue in three to five years. As we went around the table, a pattern of top candidates typically emerged, the relative merits of which were then debated against the three criteria.

Once a core session was over, the project team caucused for an hour and generated a shortlist of the most promising projects based on the issues that had received the greatest interest in plenary discussion. Brief descriptions were written to delineate the problem at stake. Working Group members then self-selected which candidate project they wanted to work on in small group breakout

sessions. In a few cases, a candidate project garnered so much interest that two small groups were formed, while a few candidate projects did not proceed to small group discussion because they did not attract a critical mass of Working Group members.

The small groups deliberated for 60-120 minutes during which time they took up three tasks:

- Determine/affirm that the topic involves a genuine ethical problem
- Identify/articulate objectives for making progress on this problem in three to five years
- Identify concrete steps or a scope of work that would be needed to achieve progress on the objectives in three to five years

A total of 20 small groups sessions were held over the four day period. One person in each group volunteered to be the rapporteur to capture the discussion. As time permitted, the results of the small group deliberations were then shared with the full Working Group for further discussion. After the meeting, the project team edited the small group written summaries and then submitted these revisions to the small group members for their review. Next, the team circulated revised summaries of the 20 candidate projects to the full Working Group for their critical feedback.

This iterative process resulted in the selection of seven global food ethics projects determined by our interdisciplinary, internationally renowned group of experts to be particularly worthy of investment because of their importance to global food security and their tractability.



THE PRODUCT

7 by 5 Agenda: 7 Projects to Make Progress on Ethics and Global Food Security in 5 Years

Ethical Challenges in Projections of Global Food Demand, Supply, and Prices

The extent to which people now and in the future experience food security turns heavily on decisions about food and agricultural policy made today by national governments and international institutions. These policy decisions are frequently premised on specific projections of future food demand, supply, and prices. Given the importance of these projections in public policy and their potential impact on the welfare of present and future generations, they should be based on transparent, ethically defensible assumptions, and they should be free of bias and unethical influence. However, this is not always the case. Assumptions about poverty rates or environmental impact may be unclear or ethically problematic. Underlying empirical data may be weak or questionable. Entities who undertake projections may have strong interests in biasing the outcomes in a direction favorable to them, while entities relying on projections may have an interest in overestimating their accuracy. The overarching goal of this project is two-fold: (1) assess the extent to which ethically problematic behavior and assumptions are comprising the integrity of projections of food demand, supply, and prices and the use of the projection outcomes; and (2) make specific, concrete recommendations about ways to decrease bias and improve integrity.

The project has six specific objectives:

- Identify situations (if any) where current data are too weak from an ethics standpoint to support projections of sufficient quality and relevance for responsible policy guidance.
- 2. On the basis of #1, make concrete recommendations for cost-effective steps to improve data quality and how to respond to the need for policy guidance when data quality cannot be feasibly improved.

- 3. Evaluate risks of moral hazards in the making of projections, including conflicts of interest that arise from financial or reputational interests of projection-producing experts and organizations that might influence the content of those projections.
- 4. Identify ethically significant assumptions on which projection models are based, as well as alternative assumptions on which they should be based, and examine how the range of morally relevant assumptions can be built into projections and might affect projected scenarios.
- 5. Identify specific ways projections can be mischaracterized and misused, either by conflating projections (i.e., scenarios of plausible alternative futures) with predictions (i.e., forecast of events that are independent of future conditions) or overstating the confidence level in such projections.
- 6. Based on #1-5, make concrete recommendations for changes in current institutional infrastructures and practices for producing projections of food demand, supply, and prices that conform to a set of ethically acceptable principles.



Project

The Food Sovereignty Movement and the Exceptionality of Food and Agriculture

protest indigenous democracy hope ex national approachions peasants cultures women farms depletion values rights consent moderations peasants cultures women farms depletion values rights consent moderations commodification access capacity global depletion access capacity global depletion water regional South vision public ideals farmer agency affordability workers local conventional climate agroecology actors requality consumption fisher nations solidarity commons discussion biodiscussion biodiscussion biodiscussion water regional south vision public ideals farmer agency affordability workers local conventional climate fisher nations solidarity commons discussion biodiscussion biodiscussion biodiscussion water autonomy deliberation

The transnational food sovereignty movement calls for the right of peoples to democratic control over food and agricultural and resource policy, as well as the right to healthy food produced through sustainable methods that respect cultural diversity. The movement seeks far-reaching changes in the structure of food markets and labor laws, public health and occupational health regulations, and ownership of land, water, and seeds. Supporters see the food sovereignty movement as a forceful critique of and a viable alternative to mainstream approaches to food security and the organization of the global food system. In contrast, policy makers, academic experts, and agribusiness often reject the positions of the food sovereignty movement as too radical, unworkable, and sometimes even contradictory. It is easy to dismiss these disagreements as stemming from commitments to incompatible economic, political, and ethical viewpoints and thus as irreconcilable. However, too much is at stake in the real world to allow these disagreements to go unaddressed. For example, the extent to which food and agriculture should be integrated in the global economy is a central question in any discussion of food security. The purpose of this

project is to make progress on some disagreements between supporters and critics of the food sovereignty movement that are rooted in different positions on the special nature or exceptionality of food and agriculture. These disagreements are of profound ethical and practical significance, and they are also potentially amenable to partial resolution in a way that broader economic, political, and ethical disputes are not.

For example, proponents of food sovereignty often argue that food and agriculture are special and should be shielded from the usual rules of market economy because of their contribution to human well-being and public goods, their importance for cultural diversity and integrity, their impact on landscapes, and their value for connecting humans to nature. Others defend the view that the organization and production conditions of the agrifood sector are exceptional (e.g., dependency on climatic variability and market fluctuations, importance of seasonal work, contribution to national interests) and therefore require exemptions from certain labor laws and environmental and public health regulations. Whether and in what sense food and agriculture are exceptional underlies and shapes many important debates on food and agricultural policy.

The project has three specific objectives:

- 1. Identify the specific points of divergence in disagreements over food sovereignty rooted in different views about the special nature or exceptionality of food and agriculture.
- Analyze the ethical and empirical basis of these divergent views and their implications for food and agricultural policy.
- 3. Based on #1 and #2, identify potential areas in which disagreements can be narrowed and use these to facilitate an improved dialogue between parties in this debate.

The Case for the Professionalization of Farming

Agriculture has undergone widespread intensification in many high- and some middle-income countries. The changes include a shift to fewer larger farms, reduction of production costs, increased use of technology and automation, and in animal production, the use of confinement facilities where animals are often kept with limited space and few amenities. Intensification takes many forms, some of which are perceived favorably. However, some of the changes associated with intensification, which seem to emphasize efficiency and profit at the expense of other values, have engendered public concern about the trustworthiness of the agrifood sector and whether it should be more strongly regulated in order to better protect workers, animals, and the environment. While relying primarily on a regulatory approach to rebuilding trust in the agrifood sector may be effective in some contexts, it can run into serious difficulties when a country tries to apply it to many thousands of farmers. This project's goal is to explore a complementary approach to rebuilding trust in agriculture based on developing a "professional" model of farming. In this model, farming is reframed as a service-oriented profession, with farmers having specialized skills and fiduciary responsibilities to the public to meet legitimate expectations for food safety and environmental, worker, and farm animal protection.

The project has four specific objectives:

 Clarify what a professional model is, how it might be applied in agriculture, and what values or goods professionalization can bring. For example, in other economic sectors, professionalization involves acquisition and accreditation of specialized knowledge or skill, provision of valued products or services, independent decision-making, selfregulation, existence of a code of ethics, and stewardship of public goods.

- Evaluate, from an ethics standpoint, the desirability
 of the professionalization of farming in different
 contexts by analyzing potential benefits and burdens
 associated with this model on all affected parties,
 including other farmers, unskilled and seasonal farm
 workers, certain categories of contract farmers,
 consumers, and society.
- 3. Determine the compatibility of the professionalization of farming with contemporary forms of organization of the agrifood sector (e.g., contract farming, vertical integration, farmer cooperatives) in high- and middle-income countries.
- 4. Based on the desirability of professionalization as determined through #1-3, identify the specific practical steps that are needed, in different forms of organization of the agrifood sector, to build or reinforce farming as a profession.



Global Agricultural Research and Development: Ethics, Priorities, and Funders

Agricultural research and development (R&D) is indispensable to ensuring sufficient yields, sustainable farming practices, food safety, and viable economic prospects for farmers and rural populations, many of whom face tremendous hardships. Agricultural R&D plays a key role in providing farmers with innovative technologies, improved crops and livestock, management innovations, extension services, best practices guidelines, and new economic tools to increase their income through farming or nonfarm activities. However, many farmers, particularly in low-income countries, do not sufficiently benefit from current advances in agricultural R&D. This is because the products developed through research, such as some seeds and pest management technologies, can be too expensive for disadvantaged farmers to adopt or are not suitable for their environment or farming systems. Moreover, although the global public and private budget allocated to agricultural R&D has increased over the last decades, it continues to be insufficiently responsive to the pressing needs and preferences of many disadvantaged farmers. The goal of this project is to develop institutional, reformoriented recommendations to help ensure that a fair share of agricultural R&D resources is targeted towards the development of affordable, sustainable, and easy to use innovations that are directly responsive to the needs and preferences of disadvantaged farmers in low-income countries.

The project has five specific objectives:

 Identify areas of agricultural R&D of critical importance to disadvantaged farmers in low-income countries that are currently insufficiently funded or researched.

- Identify ethical considerations that currently inform agricultural R&D allocation of resources, prioritysetting, and selection of research topics by funders (public sector, private companies, and philanthropic foundations).
- 3. On the basis of #1 and #2, critically evaluate, and if necessary, revise or supplement, the ethical considerations that agricultural R&D actors should take into account when making key decisions.
- 4. Determine models of public-private partnerships in agricultural R&D that are, all things considered, beneficial to disadvantaged farmers in developing countries and do not raise significant ethical concerns.
- Make specific, practical, and actionable recommendations for aligning agricultural R&D policy, funding, and priorities with the needs and preferences of disadvantaged farmers in low-income countries.



Climate-Smart and Climate-Just Agriculture

According to the Nobel Prize-winning International Panel on Climate Change, current agricultural practices contribute significantly to climate change, and climate change poses a severe threat to global food security and public health. In response, strategies that can help mitigate and adapt to unavoidable climate change have been put forward under the label "climate-smart agriculture." These strategies include technologies and practices intended to increase productivity, reduce environmental impact, increase efficiency in scarce resource use, and improve food system resilience. However, agricultural practices cannot be genuinely climate-smart if they are not also climate-just. The benefits they produce and the burdens they impose must be fairly distributed on current populations and on future generations. For example, small farmers and their families living in tropical regions will be the hardest hit by droughts. extreme weather events, and higher temperatures. Although they have the greatest need, these small farmers will be the least able to afford climate-smart agriculture. As a consequence, the world's poorest and most disadvantaged populations may be the least likely to experience the promised benefits of these technologies, including improved food security and rural livelihoods. At the same time, as the environmental impact of agriculture in tropical regions increases, these same populations may be required to adopt other burdensome climate-smart technologies whose benefits fall disproportionately on others. The overarching goal of this project is to help prevent these unfair outcomes from occurring by showing why and how climate-smart agriculture can and ought to be climate-just across different geographic and temporal dimensions.



The project has three specific objectives:

- Systematically distinguish and analyze the multiple justice dimensions embedded in current proposals for and debates about climate-smart agriculture.
- Develop a concrete, practical set of ethical criteria for assessing the extent to which existing and proposed climate-smart agricultural strategies are also climatejust, with particular focus on identifying instances in which climate-smart agriculture fails to sufficiently benefit populations who are most affected by, and least able to adapt to, climate change.
- 3. Categorize and propose specific remedies for current obstacles to the adoption of climate-smart and climate-just agriculture.

Ethics of Meat Consumption in High-Income and Middle-Income Countries

Seemingly intractable debates about the ethics of meat consumption might be allowed to go on forever were it not for the harsh implications of globally increasing rates of meat consumption for human health and the environment. This project tackles ethical challenges in the consumption of animal-source foods from a broadened angle that does not focus primarily on the debate about animal interests and the individual rights of consumers. The overarching goal of this project is two-fold. The first goal is to determine the evidencebase for claims about (a) how much (if any) and what kinds of animal-source foods humans need to consume over the life course for optimal nutrition; and (b) what range of nutritionally optimal meat-inclusive diets is compatible with environmental sustainability. The second goal is to evaluate the justifications for and limits of government and private-sector interventions to move the dietary patterns of populations in highand middle-income countries closer to this range.1

The project has six specific objectives:

- Determine the nutritional value and importance of different animal-source foods at different stages of the lifecycle, for different genders, and for people with different health conditions.
- 2. Survey existing work on the environmental impact of the production of animal-source foods as well as that of non-animal-source foods that are most likely to replace them. Estimate the environmental impact of consuming different amounts of animalsource foods as compared to the environmental impact of consuming replacement non-animalsource foods.
- Based on #1 and #2, determine whether the nutritional advantages and/or environmental advantages of certain patterns of consumption of animal-source foods provide sufficient scientific

- evidence to support policies and interventions to lower or otherwise alter patterns of animal-source food consumption.
- 4. If there is sufficient scientific evidence in support of those policies and interventions, determine whether there is, on balance, strong ethical justification for promoting reduced animal-source food consumption. Base this determination on an analysis of potential political, social, cultural, and ethical objections to policies and interventions, as well as favorable equitybased arguments grounded in dramatic differences in meat consumption patterns between high-, middle-, and low-income countries.
- 5. Identify morally relevant differences between middle-income countries (where the aim would be to prevent meat consumption levels from reaching a threshold) and high-income countries (where the aim would be to alter already entrenched patterns of consumption).
- 6. If there is sufficient scientific and ethical justification to reduce consumption of animal-source foods, provide specific, actionable guidance on how policies and interventions should be constructed. Base this guidance on an "animal-source food-specific" analysis of existing work on the effectiveness and ethical acceptability of various types of interventions to induce large-scale dietary changes (e.g., taxes, subsidies, incentives, nudges, information campaigns).

¹The project will consider whether interventions to lower animal-source food consumption among elites in low-income countries also are justified.



Project

Consumers, Certifications, and Labels: Ethically Benchmarking Food Systems

Consumers around the world face a bewildering array of labels and designations — Fair Trade, Organic, Certified Humane, Equitable Food Initiative — that are intended to help them make food purchases that are consonant with their ethical and other values. However, many of these labels lack clarity. are insufficiently reliable, and are even sometimes misleading. The goal of this project is to develop a comprehensive labeling system for the ethics of food that aggregates information provided by existing accurate and reliable certification and labeling programs and to develop new certification processes for food values for which no reliable certification or labeling programs exist. This comprehensive system will address environmental sustainability, animal welfare, labor standards, public health, and food safety and will allow consumers to easily and accurately identify and incorporate ethically-based knowledge into their food choices. This labeling system is not meant to replace domain-specific certification programs that are accurate and reliable but to offer consumers easy access to integrated and trustworthy ethical information on the food they purchase. The integrated labeling system will also encourage actors all along the food value chain, from producers to retailers, to adopt practices endorsed by the system as a response to ethically-informed consumer demand.

The project has six specific objectives:

 Vet which ethical considerations in the food value chain can be (at least partly) addressed through a comprehensive labeling program, including at minimum food safety, sustainable farming practices, labor standards, and animal welfare.
 In part, and as a first step, this vetting will occur through a symposium in which these four and potentially other relevant considerations will be subjected to careful scrutiny for their suitability for



benchmarking, including potential for consensus on ethical standards, feasible operational measures, and public acceptability.

- 2. Develop ethical standards for assessing existing certification programs and creating new ones, as needed. These standards should be tailor-made for each component of the food system (e.g., production, processing) and adaptable to different types of food production and market networks.
- Extensively map current certification programs and labels and assess them against these ethical standards to benchmark best practices and identify areas in need of improvement.
- 4. Develop a comprehensive, accurate, and userfriendly labeling system.
- 5. Encourage relevant food value chain actors to endorse this benchmarked labeling system.
- 6. Educate the consumer on the labeling system.



NEXT STEPS

We are committed to making the 7 by 5 Agenda for Ethics and Global Food Security a reality. Projects are being further specified, relevant experts identified, and funding sought. As we work to bring attention to the 7 by 5, our hope is not only to see these worthy projects undertaken, but also to help raise awareness in global and regional institutions and national governments of the critical importance of ethics to global food policy and practice. Feeding the world is an unquestionable moral imperative. But we must do more than that.

We must feed the world — ethically.

GLOBAL FOOD ETHICS PROJECT

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This project is funded by the Stavros Niarchos Foundation





Baltimore, MD • May 2015





