Ethics, Politics, Knowledge and Our Planet’s Food Futures Project

(“The Ethics of Food Futures Studies”)

Extended Description

Updated on December 11, 2016

Studies of the futures of food answer questions such as, “do we need to increase global agricultural production to feed the world sustainably in 2050?” Conclusions vary dramatically; for instance, while some maintain we do not need to increase production at all, others claim we need to increase it by 30-100%. Similar variations and uncertainties are striking with respect to many other issues. Beyond the results of the studies, discrepancies among studies on the selection of relevant inputs (e.g., indicators of food consumption or degree of democratic control over food policy decisions) and the quality of data sources used are also consequential. In addition, the sheer heterogeneity of methods used to explore the futures of food makes comparisons between studies particularly challenging; in fact, while there are several reviews of global food foresight studies, none of them qualifies as a systematic review. These issues and many others compromise responsible and informed collective choices vital for humanity, the wellbeing of nonhuman animals, and our impact on ecosystems and Earth systems.

To put it succinctly: Disagreements on what policies we should adopt to shape the future of food depend on how we assess the evolution of food systems over the long-term at a global scale; global food foresight studies are our best tools to make those assessments. Clearly, all debates on the future of food rely on our judgments on possible, plausible, probable, desirable, and undesirable food futures (Chart 1 and Table 1). Nothing is more fundamental.
Chart 1: Five Types of Futures

<table>
<thead>
<tr>
<th>Types of Futures</th>
<th>Examples</th>
</tr>
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<tbody>
<tr>
<td>Possible</td>
<td>A space virus kills all and only organisms consumed by humans</td>
</tr>
<tr>
<td>Plausible</td>
<td>Most people adopt affordable and delicious cultured meat</td>
</tr>
<tr>
<td>Probable</td>
<td>Global meat consumption increases with population and income growth</td>
</tr>
<tr>
<td>Desirable</td>
<td>Universal access to a sufficient amount of high quality, nutritious, culturally appropriate, sustainably produced, and fairly traded food is secured</td>
</tr>
<tr>
<td>Undesirable</td>
<td>Food scarcity is severe, chronic, and irremediable</td>
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Table 1. Explanation of Types of Futures
Policy-oriented and academic research on the futures of global food encompasses studies that have a thematic focus on food\(^1\) (i.e., food and agriculture):

- Food systems
- Food and nutrition security
- Food demand and supply
- Food markets and prices
- Food consumption and production, including plant-based and animal-source food production and consumption
- Food technological innovation
- Agrifood governance
- Climate change and food
- Land-use change
- Water use and resource use by food systems
- Social, cultural, political, and ethical values related to food

Food futures studies that adopt a global scale, as contrasted with local, national, and regional scales, are complex and costly. They are produced by a small number of institutions: international organizations, powerful governments, think-tanks, research institutes and universities, consulting firms, the defense sector, and the private sector. They inform the long-term food and agricultural public policies of governments; international organizations’ recommendations and programs; investment strategies and priority-setting in the private sector; advocacy claims of NGOs; and the demands of agrifood social movements (Table 2). Given the variety of study methods and results, actors may be tempted to cherry-pick studies to advance their own agendas and visions of desirable or undesirable global food futures.

\(^1\) In contrast, some studies are used as input to global food futures studies (e.g., population growth studies); other foresight studies have implications for global food futures studies but lack an explicit thematic focus on food (e.g., socio-political stability studies).
What is commonly called “futures,” “foresight,” or “prospective” research applies scientific rigor, artful skill, and practical imagination to predict, forecast or anticipate possible futures of food that are relevant to present-day choices. Since 1945, over thirty types of foresight methods have been created. These include economic projections, complex systems modeling, scenario building exercises, participatory workshops, and combinations therein. The use of foresight/futures studies methods has deeply transformed governance in general, beyond the food issue. The claim that scientific methods can yield practical knowledge about the future has resulted in the widespread view that decision-makers can rationally deliberate about the future; anticipate the unexpected (risk, uncertainty, complexity); and to some extent govern, influence, plan, or control the future.
Our timely study is motivated by a new wave of research in global food foresight studies triggered by four main factors. First, the sharp increase in global food prices in the period 2007-2008 brought to the forefront of policy-makers’, scientists’, and other social actors’ attention the fact that the interaction of global drivers of food production, trade, and consumption has a profound impact on national food security. Robust national food policies cannot rely solely on domestic foresight studies; they need to be informed by global assessments. The awareness of the importance of global factors for domestic policies led to boost funding for costly global food foresight studies. Second, there is a growing perceived value in integrating food in climate models and scenario, given the potential impact of climate change on food production and distribution, the contribution of food systems to climate change, and the role of food and agriculture in climate mitigation and adaptation strategies. Third, recent advancements in computing power, software, and access to data sources have made possible global integrated assessment models, which include food and agriculture, and involve a more diverse scientific community. Fourth, the social and political demand for enhancing the democratic legitimacy of studies that inform public policies has led to putting the emphasis on research based on the participation of lay social actors (such as NGOs or concerned citizens), rather than solely on experts and policy-makers.

Building upon foresight practitioners’ rich tradition of reflection on their own practice and its epistemic, ethical, and political assumptions, our interdisciplinary team will initiate the first comprehensive and in-depth investigation of normative issues in global food foresight studies. Its innovative approach will borrow tools from philosophy, social and human sciences, economics, agronomy, nutrition, and climate science. The project pursues three aims; each aim requires theoretical work performed in close consultation with global food foresight practitioners, commissioners, end-users, and a variety of social actors:

- Identify ethical, political, and epistemic issues in global food futures studies, institutions, and practices.
- Elaborate new pathways, including but not limited to policy recommendations, to address identified issues.
- Engage with the public to foster a lively, informed, and democratic public debate on our planet’s food futures.
These three aims will be pursued through four thematically organized work packages:

**Work Package #1: Scoping and Mapping of Global Food Foresight Studies since 1945**

A scoping review of global food foresight studies will gauge the size and diversity of this literature. A mapping review will provide an in-depth analytic description of global food foresight studies along many dimensions needed to develop our research program.

**Work package #2: Epistemic Issues in Global Food Foresight Studies**

How should we assess the validity, comparability, quality, and reliability of global food foresight claims, methods, data, and indicators? How do and should values inform global food foresight knowledge claims and practices?

**Work Package #3: Ethical Issues in Global Food Foresight Studies**

Which ethical assumptions currently underlie global food foresight studies? Should they more explicitly inform these studies, and if so, how? Should alternative assumptions be adopted because of their ethical significance? Examples of issues we will explore include: the selection of indicators in global food foresight studies; the specification and evaluation of what counts as a relevant worst-case scenario in global food foresight studies.

**Work Package #4: Political and Governance Issues in Global Food Foresight Studies**

What role do and should various conceptions of domestic and global justice, aspirational ideals, and comprehensive visions of utopias and dystopias play in global food foresight studies? Do we have an obligation to enhance governance capabilities over food foresight-relevant data production, access, and ownership? Whose voices need to be included or amplified in global food foresight studies given what we know about the “lifecycle” of these studies from their conception to the ways they are strategically used by policy-makers, the private sector, and social actors?
This project elaborates on an idea originally developed as part of the Global Food Ethics Project (2013-2015) and featured in the *7 by 5 Agenda: Ethical Challenges in Projections of Global Food Demand, Supply, and Prices*.

**Project Duration: 3 Years (May 2016-April 2019)**

**Funder:** Stavros Niarchos Foundation
Presentation of Project Team

Johns Hopkins Core Team Members

- **Yashar Saghai**, M.A., Ph.D., Research Scholar and Associate Faculty, Principal Investigator on the Ethics, Politics, Knowledge and Our Planet’s Food Futures Project, Johns Hopkins Berman Institute of Bioethics
  - Areas of expertise relevant to the project: Practical ethics, political philosophy, and philosophy of science with a focus on foresight/futures studies, food and agriculture, behavioral economics and cognitive psychology
- **Claire Davis**, M.A., Writer and Project Coordinator, Johns Hopkins Berman Institute of Bioethics
  - Areas of expertise relevant to the project: Humanitarian emergencies; refugees; Eastern European studies
- **Ruth Faden**, Ph.D., M.P.H., Founder Berman Institute of Bioethics, Inaugural Andreas C. Dracopoulos Director, and Philip Franklin Wagley Professor, Johns Hopkins University
  - Areas of expertise relevant to the project: Practical ethics (in particular, public health ethics); public policy; global justice
- **Jessica Fanzo**, Ph.D., Bloomberg Distinguished Associate Professor of Ethics and Global Food and Agriculture, Director, Global Food Ethics and Policy Program, School of Advanced International Studies (SAIS), Berman Institute of Bioethics, Bloomberg School of Public Health, Department of International Health, Johns Hopkins University
  - Areas of expertise relevant to the project: Nutrition and food systems in developing countries; practical food and nutrition ethics; nutrition big data and indicators
- **Elizabeth Fox**, Ph.D., Post-Doctoral Fellow, Johns Hopkins Berman Institute of Bioethics
  - Areas of expertise relevant to the project: Nutrition; indicators of food systems; nutrition big data; network analysis; ethnographic methods
- **Alan Goldberg**, Ph.D., Professor of Toxicology, Founding Director (Emeritus), Center for Alternatives to Animal Testing, Johns Hopkins Bloomberg School of Public Health; Johns Hopkins University
  - Areas of expertise relevant to the project: Animal welfare; food ethics
Areas of Expertise of External Core Team Members

(TBA: Contracts in Progress; Five from the European Union)

- Agronomist:
  - Areas of expertise relevant to the project: Agronomy; agroecology; evidence-based agriculture; data quality; big data in agriculture
- Agricultural economist:
  - Areas of expertise relevant to the project: Agricultural policy; food scenario building practice and management
- Development economists:
  - Areas of expertise relevant to the project: Global and regional food foresight studies, modeling, and scenarios; statistical analysis
- Philosopher of science:
  - Areas of expertise relevant to the project: Climate modeling and climate change policy; computer simulation; evidence; uncertainty; measurement; values in science; science and public policy
- Social scientist:
  - Areas of expertise relevant to the project: Food and agricultural governance; food sovereignty

Advisors to the Project

- Deborah Bräutigam, Ph.D., Bernard L. Schwartz Professor in International Political Economy Professor of International Development and Comparative Politics, Director of International Development Program and China-Africa Research Initiative, School of International Studies (Washington, DC), Johns Hopkins University
  - Areas of expertise relevant to the project: Food security; foreign aid and global poverty; land grabs; agricultural policy, trade, and commodities; Africa-China agrifood relations; international development strategies; governance and corruption
• Jerome C. Glenn, M.A., Founding Director and Executive Director of the Millennium Project (Washington, DC)
  o Areas of expertise relevant to the project: Futures studies and research methodology; foresight practice
• Per Pinstrup-Andersen, Ph.D., Emeritus Professor of Food and Nutrition Policy, Cornell; former Director of the International Food Policy Research Institute (IFPRI)
  o Areas of expertise relevant to the project: Agricultural economics; food systems; food and nutrition policy
• Cor van der Weele, Ph.D., Professor in Humanistic Philosophy, Wageningen University (Netherlands)
  o Areas of expertise relevant to the project: Food ethics (food culture and customs; ethics of in vitro meat); philosophy of biology; fact/value distinction; selective attention and strategic ignorance