Challenges for Food Sovereignty: Four Theses

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During the past month, I have been poring over the details of the Bush Administration proposal for the 2007 Farm Bill, so the opportunity to speak with you about the big picture of food sovereignty is a welcome change. I am grateful to Tufts University and particularly to the graduate student organizers of this symposium for this opportunity. My fellow panelists, Corrina Steward and Ben Burkett, have eloquently expressed concrete examples of food sovereignty in action. My less happy task is to talk about challenges to food sovereignty.

To judge by the Food and Agriculture Organization's *World Agriculture Towards 2015/2030*, food sovereignty doesn't have much chance of prospering in the 21st century. According to FAO Director General Jacques Diouf, "[n]et cereal imports by developing countries will almost triple over the next 30 years while net meat imports might even increase by a factor of almost five."[1] Food sovereignty subordinates international trade to provide sustainable food security through local knowledge, resources and producers.

This forecast of yet greater import dependency does not bode well for food sovereignty. Happily, thanks in part to great work by Tuft's Global Development and Environment Institute,[2] we know the methodological limitations of econometric scenario building and modeling. Therefore, there is grounds to be skeptical of FAO's and similar projections of a huge increase in import dependency.

However, such projections do not come without a program intent upon ensuring their realization. The FAO, the World Bank, the Bill and Melinda Gates Foundation, the Rockefeller Foundation, transnational agribusiness firms, and a host of other powerful organizations are launching somewhat coordinated initiatives for a Second Green Revolution. This so-called revolution is launched not only in the name of feeding the estimated 854 million chronically food insecure people but the 9 billion people who are projected to share our planet by 2050.[3] Who could

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[1] World Agriculture: Towards 2015/2030; Summary report. Food and Agriculture Organization. Rome, 2002. iv.

[2] e.g. Ackermann, Frank. "The Shrinking Gains from Trade: A Critical Assessment of Doha Round Projections." Global Development and Environment Institute. Working Paper No. 05-01. October 2005. <http://www.ase.tufts.edu/gdae> and Gallagher, Kevin and Tim Wise, "Doha Round and Developing Countries: Will the Doha deal do more harm than good? RSI Policy Briefs. No. 22. April 2006. <http://www.ase.tufts.edu/gdae/Pubs/rp/DohaRIS2Apr06.pdf>

[3] Kempf, Hervé. "Nourrir 9 milliards de Terriens." Le Monde. March 10, 2007.

possibly criticize, much less offer alternatives to, the technologies, food supply chains, trade rules and overall re-engineering of the global food system for such a noble endeavor? More to the topics of our symposium, what challenges do the trade policy and technology facets of this Second Green Revolution, and the concomitant increase in net food import dependency, pose to food sovereignty?

I'll try to answer this question by developing four theses in response to four topics of discussion at the Nyéléni Forum for Food Sovereignty held in February in Mali.[4] The topics are 1) local markets and international trade; 2) local knowledge and technology; 3) access and control over resources and 4) production models.

Local markets and international trade

The slogan perhaps most associated with food sovereignty and trade is, "WTO Out of Agriculture!" The reason for this exhortation is that current trade-related rules impede realization of food sovereignty.

First thesis: *Despite the WTO's decision to develop binding disciplines on the so-called non-trade concerns to promote food security, rural development and livelihoods, it has not been able to design an effective policy tool to implement this decision. The decision reduces these three aspects of food sovereignty to criteria that may be used to justify a Special and Differential Treatment exemption to a general tariff reduction formula.*[5] *The ferocity of opposition to Special Products, especially by the United States, indicates the likelihood of a trade dispute challenge against developing countries using the Special Products tariff reduction exemption.*

Consider the attempt by developing countries to implement the food security, rural development and livelihood or employment criteria of food sovereignty in the agreed framework of the Doha Round of World Trade Organization negotiations.

One implementation tool is a tariff (an import tax) reduction exemption for Special Products that developing countries prove can fulfill those criteria. According to *Inside U.S. Trade*, the Doha negotiations are stalled because India won't lower its demands on Special Products until the United States cuts its domestic support payments in the Farm Bill. The U.S. won't cut domestic support until and unless WTO members concede to U.S. demands for greater market access for its agribusiness, non-agricultural and service industries exports.[6]

The Group of 33 developing countries is negotiating for the right to designate up to 20 percent of all agricultural tariff lines as Special Products. The U.S. has countered with an offer to allow as Special Products just five of more than a thousand agricultural tariff lines -- not enough to cover even one Special Product.

Maintaining a higher tariff is an indirect way of providing some protection against agriculture export dumping, i.e. selling at a price below the cost of

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[4] <http://www.nyeleni2007.org>

[5] Special and differential treatment in agriculture. FAO Trade Policy Technical Notes. No. 10. 2005. <ftp://ftp.fao.org/docrep/fao/008/j5529e/j5529e00.pdf>

[6] "G-4 Efforts To Dislodge Doha Stalled Over. U.S., India Fight." Inside U.S.Trade. March 30, 2007.

production. IATP has calculated that U.S. agribusiness firms dumped five major crops from 1990 to 2003.[7] Tufts researchers have shown how below cost of production feedstuffs act as an input subsidy to the broiler chicken industry.[8] Input subsidies for crops can be challenged under WTO rules, but feedstuffs as inputs to livestock are not covered by the rules.

WTO anti-dumping rules are designed to measure damage to large industrial firms that can lobby their governments for protection, rather than to measure damage to farmers whose products compete against dumped agricultural exports. Oxfam, Action Aid, Christian Aid and other NGOs have documented the damage to food security, rural development and livelihoods of dumped exports.

However, only governments, not NGOs, can initiate the WTO trade dispute settlement system to seek redress for this unfair and destabilizing business practice. Few developing countries can afford the expense and withstand the retaliation of prosecuting a WTO agricultural dumping case. If the Group of 4 negotiations next week in India do not produce a deal that is imposed on other WTO members, Canada may decide to file a dispute settlement claim against U.S. agricultural dumping.[9] You won't be able to count the number of friend of the court briefs for that case.

Local knowledge and technology

One Doha negotiating chip that Ambassador Susan Schwab will be taking to New Delhi is implementation plans for the Indo-U.S. Knowledge Initiative in Agricultural Research and Education. Food sovereignty puts a premium on using farmer knowledge and technology to develop indigenous crop and livestock varieties. The Nyélíni Forum reports, "The majority of the world's food is still being produced or harvested at relatively small scales by local communities, based on local knowledge, using locally based technologies and locally available resources."[10]

The Knowledge Initiative, whose corporate partners are WalMart, Archer Daniels Midland and Monsanto, will send 500 Indian students for U.S. doctoral and post-doctoral studies in food marketing, food safety, risk management in the futures and options markets, agri-processing, and agricultural biotechnologies. India will pay the costs of their studies, but any patents on their research will belong to the universities at which they study. In exchange for accepting the U.S. agricultural agenda, the U.S. 'conceded' to sell India nuclear energy technology that it is unable to sell in the U.S. market. The Initiative will ensure U.S. agribusiness access to India's rich agro-biodiversity resources. Products developed from those resources

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[7] "United States dumping on world markets." Sailing Close to the Wind: Navigating the Hong Kong WTO Ministerial." Institute for Agriculture and Trade Policy. November 2005.

[8] Starmer, Elanor. Feeding the Factory Farm: Implicit Subsidies to the Broiler Chicken Industry. Global Development and Environment Institute. Working Paper No. 06-03. June 2006. <http://www.ase.tufts.edu/gdae/Pubs/wp/06-03BroilerGains.pdf>

[9] "United States Subsidies and Other Domestic Support for Corn and Other Agricultural Products." Request for Consultations by Canada. World Trade Organization. WT/DS357/1. January 11, 2007.

[10] "Synthesis Report." Nyéléni 2007 - Forum for Food Sovereignty. February 23-27, 2007. Sélingue, Mali.

will be subject to patent protections and monopoly marketing privileges similar to those in the U.S.[11]

Already, reports Devinder Sharma, WalMart and Monsanto have indicated that they don't want research and product and development, but market access to be the immediate result of the Knowledge Initiative.[12] The Initiative assumes, all evidence to the contrary, that developing countries must depend on imported knowledge, technology and products for their food.

Second thesis: *There is little, if anything, in the Doha Agenda, the bilateral trade and investment agreements, or in trade related capacity building projects that ensures that local knowledge, technology, resources and producers will drive agricultural research and development.*

Technological missionaries, not withstanding their noble intentions of "feeding the world," come with products whose commercial monopoly is guaranteed by enforcement of patents on those products. The products in question usually are developed on the basis of traditional knowledge about genetic resources used in the patented products. Then farmers are asked to buy a genetically engineered variety of seeds that local communities of farmers may have crossbred recently or even hundreds of years ago. For example, Monsanto's Bt cotton seed developed for India costs 4-5 times as much as the indigenous varieties that served as the foundation seed for the Bt variety.[13] The cost price squeeze for Bt cotton in India has driven thousands of farmers to commit suicide.

Developing countries have proposed an amendment to the WTO intellectual property agreement to require patent applicants to disclose traditional knowledge and genetic resources used in patented products.[14] Disclosure would be a legal tool to bolster declining patent quality, a best endeavor provision of the WTO intellectual property agreement. Scholars have characterized incomplete or false patent documentation as part of the "patent pathology" that is preventing technological innovation.[15] Disclosure would also provide a documentary basis for licensing and reimbursement of traditional knowledge and resources that biotech and pharmaceutical companies usually have expropriated without any compensation whatsoever.

Licensing fees, to say nothing of compensation for bio-pirated resources, could contribute hundred of millions of dollars to developing countries, the source

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[11] Sahai, Suman. "Nukes in favor, crops downgraded." April 8, 2006. <http://www.indiatogether.org>

[12] Sharma, Devinder. "Indo-US Knowledge Initiative: Launching 2nd Green Revolution." Keynote Address for the International Symposium on "Seeds and Biotechnology in Agriculture" at Mysore, India. April 18-19,2006.

[13] Sahai. *Op cit.*

[14] Suppan, Steve. "Amending WTO intellectual property rules to prevent bio-piracy and improve patent quality." Institute for Agriculture and Trade Policy. July 2006. <http://www.tradeobservatory.org>

[15] Reichmann, Jerome. "Patent Law Harmonization and the Draft SPLT." Open Forum on the Draft Substantive Patent Law Treaty (SPLT). World Intellectual Property Organization. March 1-3, 2006. SCP/OF/GE/06/INF/2 <http://www.wipo.org>

of most agro-biodiversity. Part of these fees could be directed to the stewards of *in situ* conservation of bio-diversity, an essential global public good. How to enforce multilateral rules concerning the sustainable and equitable use of traditional knowledge and practice will likely involve an "enforcement pyramid" composed of indigenous tribal, national and international governing bodies.[16]

With the exception of Norway, developed countries, holders of about 99 percent of all patents -- have rejected any binding rules to protect and/or license traditional knowledge. This rejection has occurred not only at the WTO, but at the World Intellectual Property Organization, where the United States, the European Union and Japan are seeking to globalize recognition of their patents to reduce administrative costs and lock in monopolies for their products. If successful, the globally enforced patent could continue to expropriate local knowledge and technology, with no licensing fees or technology transfer requirements.

Seed purity harmonization with U.S. seed purity standards, facilitated by grants from the U.S. Agency for International Development, will disqualify traditional variety planters from access to credit or foreign markets. A free market in seeds will prevail, as long as you harmonize seed standards, buy the "right" kind of inputs, enforce patents and otherwise join the international food supply chain.[17] No wonder food sovereignty proponents cry out "No patents on life!" Or as the late plant scientist Bent Skovmand, an instigator of the underground vault in Norway protecting more than three million seed varieties, said: copyrighting computer generated gene sequences is "like copyrighting each and every word in *Hamlet*, and saying no one can use any word used in *Hamlet* without paying the author."[18]

Access and control over resources

Although food production continues to outstrip population, according to FAO, the persistence of hunger results in part from lack of money to buy food and/or lack of access to or control over food producing resources.[19] Access to resources -- land, water, inputs, training, post-harvesting technology, transport, financial credit, gender equality under the law etc. -- is a crucial plank of the food sovereignty platform.

Third thesis: *The technological fixes of the Second Green Revolution, if they entail expropriation, privatization and patenting of community resources, will greatly reduce, rather than expand, access to resources.*

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[16] Drahos, Peter. Towards an International Framework for the Protection of Traditional Group Knowledge and Practice. UNCTAD-Commonwealth Secretariat Workshop. Geneva. February 4-6, 2004.

[17] "The end of farm-saved seed?: Industry's wish list for the next revision of UPOV." Genetic Resources Action and Information Network. 2007. http://www.grain.org/briefings

[18] Cited in Douglas Martin, "Bent Skovmand, Seed Protector, Dies at 61." The New York Times. February 14, 2007.

[19] McAfee, Kathleen. "Sustainability and Social Justice in the Global Food System." Agroeclology and the Struggle for Food Sovereignty in the Americas. Ed. Avery Cohn et al. Yale School of Forestry and Environmental Studies. Report no. 4. 2006.

The intensification of production through transgenic varieties and perhaps in a few years, through synthetic biology[20], requires expensive inputs whose costs can only be recovered through applications to cash crops for export. Given the increasing agricultural trade deficit for least developed countries and the forty-year decline in agricultural commodity prices,[21] it is unlikely that most farmers will recoup the costs of transgenic varieties. These applications, even if they succeed technologically, are resource intensive diversions and invasions for those who provide food crops and household food security in most developing countries.

Access to resources is not only a matter of social justice but of economic efficacy, if not efficiency, in the substitute capital/technology for labor sense of efficiency in neo-classical economics. Without distributional equity of resources for the more than 70 percent of economically active women who work in agriculture in Least Developed Countries,[22] it may become impossible for them to continue to provide household and national food security.

At the Nyéléni Forum, the Women's Declaration on Food Sovereignty states, "women, who have historically held the knowledge about agriculture and food, who continue to produce up to 80% of food in the poorest countries, and who today are the principal custodians of biodiversity and seeds for farming, are particularly affected by neoliberal and sexist policies." Their call for women's access to resources is not an abstract issue of legal equity before the law. None of the United Nations Millenium Development Goals (MDG) for food security, rural development and livelihoods will be met in food insecure developing countries without a gender effective distribution of resources.

The World Bank/ International Food Policy Research Institute report "Agriculture and Achieving the Millennium Development Goals" acknowledges the MDG 3 of "promote gender equality and empower women."[23] But for all the talk of "mainstreaming gender" in multilateral technical assistance, the scale of international financial institution policy programs, to say nothing of loans, for empowering women farmers and rural entrepreneurs pales in comparison to support for contractors of the Second Green Revolution. If intergovernmental organizations and international financial institutions were to invest to secure access to indigenous resources, rather than to promote directly or indirectly imported technological fixes, female farmers who had managed to provide food, fiber and medicine for their household with little access to resources, likely could do a great deal more.

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[20] Extreme Genetic Engineering: An Introduction to Synthetic Biology. The ETC Group. January 2007. <http://www.etcgroup.org>

[21] The State of Food and Agriculture. FAO Council. November 20-25, 2006. <ftp://ftp.fao.org/es/esa/sofa/sofa_2006_pingali.pdf>

[22] Spieldoch, Alexandra. "A Row to Hoe: The Gender Impact of Trade Liberalization on our Food System, Agricultural Markets and Women's Human rights." Friedrich Ebert Stiftung. 2007. 6.

[23] Agriculture and Achieving The Millennium Development Goals. Agriculture and Rural Development Department, The World Bank and International Food Policy Research Institute. Report No. 32729-GLB. 2005. 10

Production models

The last challenge to food sovereignty that I'd like to discuss today concerns production models. The Nyéléni Forum report states, "Food sovereignty and environmental stability are underpinned by agroecological production of food and the use of ecologically sensitive artisanal fisheries practices. But this form of production can only continue if society values and supports it and buys local foods whilst at the same time removing privileges and subsidies from industrial production systems that benefit transnational corporations."

4th Thesis: *The so-called efficiency of industrialized agriculture depends on externalizing core environmental, public health and social costs from prices and on taxpayer subsidies to compensate for farmgate prices that are below the cost of production . A production system that continues to count depletion of natural capital as economic growth cannot be made "Green" through a technology fix.*

Agroecology, a site-specific form of largely organic agriculture production that relies on local knowledge and farmer participatory research, is dismissed as a romantic anachronism by those who believe only industrial agriculture can "feed the world" while managing such environmental problems as agro-biodiversity erosion, soil health depletion, and water quality degradation. The opponents of agroecology cannot be persuaded by the data bank of sustainable agricultural practices organized by Professor Jules Pretty, who calculated that the cost of environmental and public health externalization for British agriculture in 1996 alone amounted to over 2.3 billion pounds sterling.[24]

Nor can the critics if agroecology be disabused of unsustainable agricultural practices in light of peer reviewed controlled experiments comparing the effects of crop diversity vs. monoculture on incidence of rice blast on yield on 812 hectares in 1998 in Yunnan province, China. Blast severity, affecting an average of 20 percent of the monoculture control fields of glutinous rice, was reduced to one percent in plots where mixtures of four varieties were planted, resulting in an 18 yield increase compared to the monocultural plots. Gross value per hectare of mixed rice varieties was 40 percent more than for the monoculture. By 1999, no application of fungicides was needed to control rice blast in the mixed variety plots. Yunnan farmer interest in the genetic diversity experiment was such that by 2000, 40,000 hectares were planted with mixed rice varieties.[25]

Instead of experimenting with less chemically dependent agroecological methods, the proponents of industrial agriculture count on taxpayers to pay the costs of their environmental and public health damage. For example, in the U.S. Department of Agriculture's 2007 Farm Bill proposal, the Environmental Quality Incentives Program (EQUIP) pays part of the tab for cleaning up Confined Animal

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[24] Pretty, Jules. The Real Costs of Modern Farming. Resurgence. No. 205. March/April 2001. <http://www.resurgence.org> See also Jules Pretty. Agroecological Approaches to Agricultural Development. RIMISP. November 2006. < http://www.rimisp.org/getdoc.php?docid=6440>

[25] Zhu, Youyong et al. Genetic diversity and disease control in rice. Nature. Vol. 406. August 17, 2000. <http://www.nature.org>

Feeding Operation (CAFO) environmental problems. Farmers or corporate entities with up to an average adjusted annual gross income of $2.5 million are eligible to receive up to $450,000 in cost-share assistance. Due to Congressional budget restrictions, fewer than 800 EQUIP contracts paid out more than $100,000.[26] Rather than provide incentives for best environmental practices, a good part of EQIP's $1 billion budget for fiscal year 2008 will go to enabling the construction of CAFO manure management facilities.[27] Even particularly risk operations, such as the Smithfield contractor hog manure lagoons in the flood plains and hurricane zones of North Carolina, allow the production of so-called cheap food, thanks to "disaster relief" provided by taxpayers. In the same Farm Bill, however, there is scarcely any funding or technical assistance for farmers who want to transition to organic farming.

There is much more that can and should be said about the economics and agronomics of radically reducing the chemical and livestock non-therapeutic antibiotics dependence of industrialized agriculture. Even more should be said about the extent to which agroecology can mitigate some of the worst agro-environmental and public health problems caused by industrial agriculture, such as the Dead Zone in the Gulf of Mexico and increasing human antibiotic resistance due in part to the non-therapeutic use of antibiotics in CAFOs and in industrial aquaculture.

As Kathleen McAfee writes, "Food sovereignty is as much an ecological project as an alternative economic paradigm."[28] Despite its environmental and economic viability, food sovereignty practices receive little academic support or research money compared to the huge amount received by proponents of industrialized agriculture. So if you want food sovereignty to be a part of our future, you likely will have to take some risks with your careers.

Thank you for your attention to these remarks, and again, for the invitation to speak here today. I look forward to more discussion in what has been a very thought-provoking symposium.

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[26] Environmental Quality Incentives Program (EQIP): Program Assessment. Soil and Water Conservation Society and Environmental Defense Fund. March 2007. 8-11. <http://www.swcs.org/documents/EQIP_assessment.pdf>

[27] FY 2008: Budget Summary and Annual Performance Plan. U.S. Department of Agriculture. 65. <http://www.usda.gov>

[28] McAfee, *Op cit.* 21.