



GLOBALIZATION RESEARCH CENTER

GLOBALIZATION AND FOOD SECURITY

Introduction

Two in three of the world's 150 malnourished children live in Asia¹. This level of vulnerability corresponds to indices of 'food security' in public discourses on nutrition and health. However, there are many ways of defining food security, USAID incorporated fundamental concepts of four global governance organizations to comprise the following definition:

"When all people at all time have both physical and economic access to sufficient food to meet their dietary needs for a productive and healthy life." (www.usaid.gov/pubs/ads/200/pd19.pdf)

Although this is a generally accepted definition of food security, a more elaborate alternative definition is provided by M.S. Swaminathan. Food security is thus defined as:

" providing physical and economic access to balanced diets and safe drinking water to all people at all times¹."

Food and water are two basic health necessities. Food security is the term commonly used by policy makers to describe the availability of nutrition for different populations. For populations that do not produce their own food, cost is usually the prohibitive factor in obtaining adequate nutrition. Secondary factors include knowledge of nutrition, cultural/religious beliefs, and the availability of food items for purchase. In rural communities, which are able to produce their own food, vectors of globalization acting on livestock and agriculture are more likely to affect health. More often, people are affected by a combination of these factors.

As with other health determinants, levels of food security are inextricable from global and local political economies. The following section examines some of the recurrent questions and advocated strategies in food security policy discourse.

¹Hilary, John "The Wrong Model: GATS, trade liberalisation and children's right to health." London, UK: *Save the Children Fund*, 2001.

¹Swaminathan, M.S. "Building national and global nutrition security systems." In: *Global Aspects of Food Production*, eds. M.S. Swaminathan and S.K. Sinha, 417-449. Natural Resources and Environment Series, vol.20 London: Tycooly Publishing.

Differing ways in which globalization impacts issues of Food Security

1. Can global food production keep up with a growing population? How?

A major theme of Monsanto and other biotech corporations is that genetic engineering of food is necessary to help solve world hunger by increasing agricultural yields. They believe that greater global food production must be targeted as a key mechanism of food security. These people ask:

Can world food production keep up with increasing demand? Or have we reached the limits of what the available cultivable land, water and yield improving technologies?

“A Doubly Green Revolution”	www.ifpri.cgiar.org/pressrel/052799.htm
“Remembering the Green Revolution”	www.foodfirst.org/progs/global/biotech/rosset.pdf
“Growing Demand – Can we Feed Eight Billion?”	http://info.tve.org/lps/doc.cfm?aid=650
“Croplands”	www.ourplanet.com/aaas/pdfs/75-78.pdf

2. How to ensure different population's access to adequate food?

Beyond affirming the basic need for food security, many argue that increasing global food production does not guarantee adequate access to food at either the household or national level. Widespread hunger exists today in a context of a global oversupply of food. Often, people go hungry because they either have no means to produce their own food nor earn enough money to buy it, not because of a global shortage of food.

The World Food Summit (1996) identified access to food, rather than amounts of food produced globally, as the key issue in food security. Many proponents of developing agricultural scientific knowledges believe that technological innovations are sure investments in food security.

The following articles further discuss the relationships between food access and food security issues:

The <u>World Hunger Notes</u> provide a helpful overview/ explanation of the actions of international governing bodies to address food security	http://www.worldhunger.org
“Feast or Famine? Food Security in the New Millenium”	http://www.oneworld.org/panos/briefing/food.htm
A history of food security	http://www.icsu.org/Publications/FoodSci/sec2/cha3.html
Commonly asked questions on food security	http://www.ers.usda.gov/briefing/globalfoodsecurity/questions/answers.htm
"The Cost of Hunger”	http://www.fao.org/News/2001/stockholm/arcandfull.pdf

Generally, development groups concerned with increasing access to food advocate one of two strategies:

a. Increased participation in global markets

Food deprived populations would benefit from the extension of market liberalization policies and greater integration into capitalist market because these will result in a greater production of food and a broader distribution of food through the implementation of: <ul style="list-style-type: none"> • Import based strategies for food security • Capital Intensive food production • Microenterprise/ microlending practices 	
Groups advocating this strategy for Global Food Security:	
The International Fund for Agricultural Development	(IFAD: http://www.ifad.org/) Their primary focus on the rural poor: their 2001 Rural Poverty Report (http://www.ifad.org/poverty/e_sum.pdf)
Institute for Agriculture and Trade Policy	www.iatp.org
The Consultative Group on International Agricultural Research(CGIAR)	http://www.cgiar.org/research/index.html
International Food Policy Research Institute	(one of CGIAR) subsidiary groups: http://www.ifpri.org/

b. Development of alternative methods that are sustainable and self sufficient systems

Alternative Strategies for Increasing Access to Food		
Articles on Cuban Agriculture Successes	http://www.projectcensored.org/c2001stories/12.html	
	http://www.foodfirst.org/cuba/success.html	
GRACE Factory Farm Project	http://www.factoryfarm.org/	
SAFE World Research Project	(on the development of sustainable agriculture): http://www2.essex.ac.uk/ces/ResearchProgrammes/SAFEWresprogmmain.htm	SAFE: 47 Portraits of Sustainable Agriculture Projects and Initiatives: http://www2.essex.ac.uk/ces/ResearchProgrammes/SAFEW47casesusag.htm

3. Is investment in biotechnology the best strategy to insure global food security?

Increasingly, debates over the management of global food security focus on the effects of biotechnological innovations and investments in biotechnology research.

A Debate Between Researchers on Biotechnology and Food Security:	
"Ten Reasons Why Biotechnology Will Not Ensure Food Security, Protect the Environment and Reduce Poverty in the Developing World (1999a)": http://www.agbioforum.org/vol2no34/altieri.htm	
"Ten Reasons Why Biotechnology Will Be Important to the Developing World": http://www.agbioforum.org/vol2no34/mcgloughlin.htm	
Strengthening the Case for Why Biotechnology Will Not Help the Developing World: Response to McGloughlin. 1999b <i>AgBioForum</i> 2(3-4): 226-236. http://www.agbioforum.org/vol2no34/altierireply.htm	
Informative insight into the polarization of debates over the role of biotechnology in food security: http://www.foodfirst.org/progs/global/biotech/pegmos.html	

3a. Institutions arguing for further investment in biotechnology for global food security

Publications of the International Council for Science: http://www.icsu.org/Publications/FoodSci/sec4/cha11.html
Syngenta Foundation For Sustainable Agriculture: http://www.syngentafoundation.com/agricultural_policy.htm
Syngenta Article: "Food Security for a Growing World Population": http://www.syngentafoundation.com/food_security_population.htm#
CGIAR/ IFPRI: http://www.ifpri.cgiar.org/2020/focus/focus07.htm "Appropriate Technology for Sustainable Food Security": http://www.ifpri.cgiar.org/2020/focus/focus07/focus07_04.htm
International Potato Center: "Belgian Technology contributes to developing-country food security": http://www.cipotato.org/Market/Belgtech/belgtech.htm
USDA: "Issues in Food Security: Biotechnology and Food Security": www.ers.usda.gov/publications/aib765/aib765-11.pdf
AG Care: http://www.agcare.org
Agriscape: http://agriscape.com
AgBioWorld: "31 Critical Questions in the World of Agricultural Biotechnology": http://www.agbioworld.org/biotech_info/articles/critical.html
AgBioForum: "A journal devoted to the management and economics of agro-biotechnology": http://www.agbioforum.org/
Functional foods: new kind of GMO http://www.globalissues.org/EnvIssues/GEFood/Functional.asp
Michigan State University Department of Agricultural Economics articles: http://www.aec.msu.edu/agecon/fs2/psynindx.htm

3b. Evidence demonstrating the detrimental effects of biotechnology in agricultural practices and developing economies

"Terminator Technology Threatens World Food Security": http://www.gaiabooks.co.uk/environment/terminatorseed.html
OXFAM Community Aid Abroad: "Genetically Modified Hunger": http://www.caa.org.au/horizons/september_2000/soapbox.html
Institute for Global Dialogue: "Terminator Technology, What Future for Household Food Security?" http://www.igd.org.za/publications/global_dialogue/green_pages/terminator.html
Asia-Pacific Research Network: The People's Caravan 2000: Citizens on the Move for Land and Food Without Poisons: http://www.aprnet.org/pc.htm
Genetic Resources Action International (GRAIN): http://www.grain.org/front/index.cfm
Food First Institute for Food and Development Policy: "Articles Critiquing Biotechnology and Industrial Agriculture": http://www.foodfirst.org/progs/global/biotech/

In contrast to arguments for investment in agricultural technologies, many researchers believe that biotechnology actually *contributes* to global food insecurity. They argue that strategies that address food security through biotechnological innovations:

- a. will not reach the most food insecure populations,
- b. may be unsafe for human consumption,
- c. do not address underlying factors of food access,
- d. provide the legal means for exploiting poor populations,
- e. that further investment in technological innovations may actually increase the prevalence and incidence of famine and starvation.

4. How does the 'technologization' of food production intersect with global human rights?

As agricultural technologies become more globalized, the question of legal claims over certain practices have complicated the evaluation of the effectiveness of certain agricultural innovations in furthering global access to food.

Food Related Patenting Rights Articles and Organizations: Biotechnology Corporation issues, Patenting rights, TRIPS & IPRs, etc.	
Research Foundation for Science, Technology and Ecology (RSFTE)	www.vshiva.net
Intellectual Property Rights Resource Center	http://www.ids.ac.uk/eldis/ipr/
<i>Primal Seeds</i> (organization)	http://www.primalseeds.org/
"Intellectual Property Rights and Development" (article)	www.ictsd.org/issarea/iprs-sd/docs/PolicyPaperIPRs.pdf
International Cooperation for Development and Solidarity (CIDSE): 'Biopatenting *and the Threat to Food Security' (article)	http://www.cidse.org/pubs/tg1ppcon.htm
article on IPRs from GRAIN	www.grain.org/publications/asiaipr-en-p.htm
"Trade, Intellectual Property, Food and Biodiversity" (article)	www.btinternet.com/~g.tansey/trips/
'Intellectual Property, Seeds and Food Security' (article)	http://europa.eu.int/comm/europeaid/projects/resal/Download/report/mission/coord/1000stcoordtripsgb.pdf

Food and Food Security Issues in the Asia Pacific Regions

Global trends affect different regions differently. In Asia Pacific regions, the impact of macroeconomic and political changes on issues of food and food security develop into particularized concerns in varied communities.

a. Organizations and conferences focusing on food security in Asia and Pacific regions

The <i>Harvard University Asia Center</i> had a conference on Food Security in Asia (1999). Proceedings from the conference can be viewed at :	http://www.fas.harvard.edu/~asiactr/disasters.html#papers
The Asia Pacific Research Network publishes news related to food security in Asia and the Pacific	http://www.aprnet.org
APRNetwork publishes news on the "People's Caravan 2000: Citizen's on the Move for Land and Food Without Poisons"	http://www.aprnet.org/pc.htm
The <i>M.S Swaminathan Research Foundation Center for Research on Sustainable Agricultural and Rural Development</i> specializes in researching agricultural and sustainable development practices in Asia.	http://www.mssrf.org
The Food Security Network provides information on the benefits of biotechnology in agricultural practices that is specific to Asia/Oceania.	http://www.foodsecurity.net/index.php?geo=ao
The University of Hawaii's Agriculture Department in Association with the East-West Center are collaborating on a study of the Effects of Institutions and Economic Changes on the Agri-Food Industries of the Asia-Pacific Region.	http://www.hawaii.edu/apfat/welcome.html
Consumers International Regional Office on Asia and the Pacific (Food Programme)	http://www.ciroap.org/food/

b. Articles and other resources that address the impacts of globalization on food security in Asia and Pacific regions

The FAO published their "World Food Summit: Food Security Situation and Issues in Asia and the Pacific" from their 23 rd Conference was held in Apia, Samoa on 14-18 May 1996.	http://www.fao.org/wfs/resource/english/aprc964.htm
"The GATT Agreement on Agriculture and its Impact on Indian Agriculture"	http://www.aprnet.org/aprndhar.htm
"Canada's Overseas Development Aid: A Canadian Trade Unionist's View at the Year 2000: Effects on Asia"	http://www.aprnet.org/warnock.htm
A "Food Insecurity Atlas of Rural India"	http://www.mssrf.org/foodinsecurity/mssrf.html
Food Security, Poverty and Women: Lessons from Rural Asia	http://www.ifad.org/gender/thematic/rural/rural_toc.htm
Food Security Implications of Climate Change for South and Southeast Asia	http://www.mssrf.org/reports/climatechange/climatechange1.html
The USDA's National Resources Conservation Service published: "Land Quality and Food Security in Asia"	http://www.nhq.nrcs.usda.gov/WSR/papers/food-security-asia.htm

c. Debates over the genetic modification of food products in Maori nations

Indigenous Self Determination and Food Agritechnologies:	
Maori food traditions and GMOs	http://www.gmcommission.govt.nz/publications/Maori_Bevan_Tipene-Matua.pdf
Te Kiti Ipurangi: Online Learning Center	http://www.tki.org.nz/r/hot_topics/gm_e.php
Genetic Modification issues and the Treaty of Waitangi	http://www.converge.org.nz/pma/redefi.htm
"Approval of GMOs Fuels Maori Backlash"	http://www.poptel.org.uk/panap/latest/backlash.htm
Listing of articles on Maori rights and GMO	http://www.kaitiaki.org.nz/virgule/article/older.htm?start=10
"The Vexed Issue of Genetic Modification" (speech)	http://www.scoop.co.nz/mason/stories/PA0111/S00056.htm
Rural Advancement Foundation International	www.rafi.org

Additional Information

<u>Non governmental bodies/ NGOs:</u>	
The Food Security Network	http://www.foodsecurity.net/
Friends of the Earth food campaign	http://www.foe.co.uk/campaigns/real_food/index.html
The Hunger Site	http://www.hungersite.org
Consumers International Regional Office on Asia and the Pacific (Food Programme)	http://www.ciroap.org/food/
Foodfirst: Institute for Food and Development Policy	http://www.foodfirst.org/
America's Second Harvest	http://www.secondharvest.org/
Bread for the World	http://www.bread.org/
Carleton's Global Network on Food Security	http://www.ncf.carleton.ca/ip/social.services/global-food/
Center on Hunger and Poverty (USA)	http://www.centeronhunger.org/
Organizations addressing GM agricultural issues (The genetic modification of food products/ seed, conservation of biodiversity, etc.):	
<ul style="list-style-type: none">- www.purefood.org Organic Consumers Association- www.truefoodnow.org Greenpeace- www.antenna.nl/aseed Action for Solidarity, Equality, Environment & Development (ASEED)- www.grain.org Genetic Resources Action International- www.gene-watch.org Council for Responsible Genetics- www.twinside.org Third World Network- www.transgenicos.org RIAD- www.artactivist.com/geneact/ Genetixaction!- http://www.cropchoice.com/- "Last Plant Standing" : http://info.tve.org/lps/doc.cfm	
<u>International governing bodies of food security include:</u>	
a. The UN Food and Agricultural Organization (FAO) (http://www.fao.org/)	
b. FAO Regional Office on Asia & the Pacific Documents: http://www.fao.or.th/Publications/publications.htm	
c. UNICEF: http://www.unicef.org/	
d. The World Food Programme : http://www.wfp.org/index2.html	
e. The United Nations Development Programme on Poverty Reduction : http://www.undp.org/poverty/	
f. FAO Regional Office for Asia and the Pacific: http://www.fao.or.th/	
g. OXFAM International: http://www.oxfam.org/	
