

Food, hunger and NCDs David Legge (2015)

The interrelationships between globalization and food systems are complex and contested, and have important implications for human health. The disease burden associated with both under-nutrition and diet-related NCDs is huge. Under-nutrition includes acute malnutrition, chronic hunger, stunting and susceptibility to other diseases due to specific deficiencies, such as maternal deaths due to iron deficiency. The leading diet-related NCDs include ischaemic heart disease, hypertension, stroke, diabetes and some cancers.

Current patterns of investment and trade in food and related commodities contribute in various ways to poverty, hunger, urbanisation, and the NCDs epidemic. These complex dynamics include:

- the provisions of the WTO Agreement on Agriculture (AoA) contribute to the dumping of subsidised food products (and exclusion of developing country farmers from rich world markets) which contribute to collapse of small farming, rural poverty, urban migration, and dependence on imported foods;
- continuing pressures (from the IMF, the WB, and bilaterally from the food exporters) on L&MICs:
 - to reduce import tariffs, including on food imports (which may be dumped at below cost),
 - to privatise and marketise farm support functions (technical support, credit, input subsidies, irrigation, marketing, insurance, public procurement and food distribution programs).
- the corporate restructuring of global food systems in accordance with the imperatives of the global value chain (maximise opportunities to 'add value'; maximise 'productivity' and 'efficiency'; control small suppliers, avoid tax, etc):
 - corporate development of input-intensive, large scale, agro-industry farming models (including through land-grabbing) as required by the GVC;
 - over-consumption of meat products (associated with the diversion of arable land to stockfeed);
 - aggressive marketing of energy intensive packaged foods which are processed (hence have value added); are cheap, because they are light (with a low water content); have a long shelf life and can be transported long distances (because they do not rot);
 - intensively marketing of sweet beverages, snack foods, and convenience foods;
 - supermarket dominance over small suppliers (brand marketing requires standardisation of inputs; monopoly purchasing forces prices down for small suppliers)

- the diversion of arable land to biofuels (because of oil price politics) and to stock feed (because of premium value of meat products);
- income inequality contributes to maldistribution of good food;
- speculation in commodity futures leads to price volatility (damaging for small farmers) and price spikes (contribute to hunger and riots);
- impact of climate change and extreme weather events (associated with global warming) on small farmers;
- water shortages associated with climate change, upstream demand, lack of public investment in irrigation infrastructure.

Policy debates regarding the reform of food systems extend broadly:

- fair trade and re-negotiation of the AoA;
- food sovereignty and recognition of the cultural and ecological values of traditional food systems (agro-ecology in contrast to industrial agriculture);
- closer regulation of food marketing including taxes, labels and subsidies to make healthy eating cheaper and easier than junk diets;
- resistance to extreme trade liberalisation to allow space for protection of small farming;
- restoration of public revenues and resistance to tax competition through a binding multilateral agreement on taxation;
- resistance to land grabbing;
- action on climate change including mitigation and adaptation;
- international regulation of TNCs.

References dealing generally with globalization, trade and food

Institute for Agriculture and Trade Policy (www.iatp.org).

Agriculture and trade policy think tank. Excellent resources.

Food First. <http://foodfirst.org/>

Food policy think tank producing materials to support communities and social movements working towards food justice and food sovereignty.

International Food Policy Research Institute (IFPRI, www.ifpri.org/)

IFPRI is the main policy institute within the CGIAR (originally the Consultative Group for International Agricultural Research; now the Consortium of International Agricultural Research Centers). The CGIAR is committed to food security through increased agricultural productivity with new crop strains, new techniques for controlling pests etc. It is supported by G20 governments, the World Bank and other development banks, various philanthropies (Gates, Rockefeller, Ford), and the private sector. IFPRI

produces a range of reports, books, etc which correspond to the broad perspective of CGIAR.

Food and Agriculture Organisation (FAO) <http://www.fao.org/>

Useful materials on food security and related issues.

Hawkes, Corinna, Chantal Blouin, Spencer Henson, Nick Drager, and Laurette Dubé, eds. *Trade, Food, Diet and Health: Perspectives and Policy Options*. Chichester: Blackwell, 2010.

Excellent collection, comprehensive and authoritative, from leaders in the field. Part 1 provides useful overview of food trade, diet and health. Part 2 deals with a range of different links between trade and nutrition. Part 3 includes five essays on policy options.

Hawkes, Corinna, and Sophia Murphy. "An Overview of Global Food Trade." Chap. 2 In *Trade, Food, Diet and Health: Perspectives and Policy Options*, edited by Corinna Hawkes, Chantal Blouin, Spencer Henson, Nick Drager and Laurette Dubé, 16-34. Chichester: Blackwell, 2010.

In this extremely useful chapter Hawkes and Murphy outline the key provisions of contemporary trade agreements which affect food systems; review FDI in the food supply chain; sketch the numbers, focus and reach of transnational food corporations; and review the changing patterns in trade in foodstuffs.

Gereffi, Gary, and Michelle Christian. "Trade, Transnational Corporations and Food Consumption: A Global Value Chain Approach ". Chap. 6 In *Trade, Food, Diet and Health: Perspectives and Policy Options*, edited by Corinna Hawkes, Chantal Blouin, Spencer Henson, Nick Drager and Laurette Dubé, 91-110. Chichester: Blackwell, 2010.

Extremely useful chapter introducing the methodology of global value chain (GVC) analysis and illustrating its use in relation to global food systems. Works through three case studies (soya beans in China, corn in Mexico, and import dependence in Trinidad and Tobago) and then reviews the GVCs in which McDonalds and Pepsico operate.

Nestle, Marion. *Food Politics: How the Food Industry Influences Nutrition and Health*. California Studies in Food and Culture. edited by Darra Goldstein. 3rd ed. Berkeley, Los Angeles, London: University of California Press, 2013.

This comprehensive, well documented and widely read text is largely focused on food politics in the USA but most of it accurately projects to the global arena.

References focusing on hunger and under-nutrition

Clapp, Jennifer, and Kim Burnett. "Governing Trade in Global Food and Agriculture." Chap. 6 In *Handbook of Global Economic Governance: Players, Powers and Paradigms*, edited by Manuela Moschella and Catherine Weaver, 79-94. Abingdon and New York: Routledge, 2013.

Overview of the recent history regarding the changing structures through which trade in food and agriculture is governed; from the GATT, to the Agreement on Agriculture (AoA) to the private regulation of agricultural commodity value chains.

Excellent background to the negotiation of the AoA and debates around the Doha 'development round'. Extremely useful description of agricultural commodity chains as a regime of private sector global food governance. Highlights the progressive delegitimation of the global trade in agriculture regime and discusses the fair trade movement and the food sovereignty movement in this context.

Wise, Timothy A, and Sophia Murphy. *Resolving the Food Crisis: Assessing Global Policy Reforms since 2007*. IATP and GDAE, 2012.

http://iatp.org/files/2012_01_17_ResolvingFoodCrisis_SM_TW.pdf.

Reports on policy changes following the food price spikes of 2007/8 and 2011. Reviews a range of global policy settings. Finds that in three areas action is urgently needed: limiting the expansion of biofuels cropping; controlling speculation in food commodities; and land grabbing.

Wise, Timothy A. *Agricultural Dumping under NAFTA: Estimating the Costs of U.S. Agricultural Policies to Mexican Producers*. Woodrow Wilson International Center for Scholars, 2010.

<http://www.ase.tufts.edu/gdae/Pubs/rp/AgricDumpingWoodrowWilsonCenter.pdf>.

The North American Free Trade Agreement (NAFTA) reduced tariffs between Mexico and the US but did not address US Government support for farm products. As a consequence a range of agricultural commodities were exported from US to Mexico at prices below the cost of production ('dumping'). Wise estimates the costs to Mexican farmers of such dumping.

Bush, Sasha Breger. "Gambling on Hunger and Climate Change." In *State of Power 2015: An Annual Anthology on Global Power and Resistance*, edited by Nick Buxton and Madeleine Bélanger Dumontier, 38-49. Amsterdam: Transnational Institute, 2015. http://www.tni.org/sites/www.tni.org/files/download/tni_state-of-power-2015.pdf

Role of finance sector in speculation in food commodities and price volatility, conflict and hunger.

Lock, Karen, David Stuckler, Kate Charlesworth, and Martin McKee. "Potential Causes and Health Effects of Rising Global Food Prices." *BMJ* 339 (2009-07-13 10:22:30 2009). doi: <http://dx.doi.org/10.1136/bmj.b2403>.

Identifies speculation in food futures as the principal causes of the 2008-9 spike in food prices.

Ghosh, Jayati, James Heintz, and Robert Pollin. "Speculation on Commodities Futures Markets and Destabilization of Global Food Prices: Exploring the Connections." *Int J Health Services* 42 no. 3 (2012): 465-83. doi: <http://dx.doi.org/http://dx.doi.org/10.2190/HS.42.3.f>.

Arguing for regulation of trading on food futures markets. Find no evidence for the claim that liquidity in futures markets stabilizes prices at "fundamental" values or that spot market prices are free of any significant influence from futures markets. Urges regulators to enforce policies to dampen speculative trading on the commodities markets for food.

Clapp, Jennifer. *Hunger in the Balance: The New Politics of International Food Aid*. Ithaca: Cornell University Press, 2013.

Excellent overview of the politics of food aid. Useful review of main policy debates including "tied" (food donation) versus "untied" (financial assistance) food aid, the place of genetically modified foods and the relations of aid to trade.

Clapp, Jennifer, and Sophia Murphy. "The G20 and Food Security: A Mismatch in Global Governance?". *Global Policy* 4, no. 2 (2013): 129-38. doi: <http://dx.doi.org/10.1111/1758-5899.12039>.

Examines the role of the G20 in promoting food security after the 2007 food price spikes. Finds that G20 role not very helpful (apart from the fact that it excludes most of the developing countries and civil society). Urges that G20 support more appropriate bodies such as the UN Committee on World Food Security (CFS).

Patel, Rajeev C. "Food Sovereignty: Power, Gender, and the Right to Food." *PLoS Med* 9, no. 6 (2012): e1001223. doi: <http://dx.doi.org/10.1371/journal.pmed.1001223>.

"Understanding hunger and malnutrition requires an examination of what systems and institutions hold power over food. The concept of "food security" captures the notion of hunger not as a deficit of calories, but as a violation of a broader set of social, economic, and physical conditions. Gender is key to food insecurity and malnourishment, because women and girls are disproportionately disempowered through current processes and politics of

food's production, consumption, and distribution. La Via Campesina has advocated for food sovereignty, through which communities have the right to define their own food and agriculture policy. Women's rights are central elements to food sovereignty. The role of the food industry demands attention within the food system, where power is concentrated in the hands of a few corporations."

Windfuhr, Michael, and Jennie Jonsén. *Food Sovereignty: Towards Democracy in Localized Food Systems*. Bourton-on-Dunsmore, Rugby, Warwickshire, UK: ITDG Publishing and FIAN-International, 2005. <http://www.ukabc.org/foodsovpaper.htm>

Excellent overview of the case for food sovereignty.

Privatization and marketization of farm support functions (credit, inputs, marketing, insurance, etc)

Krishnamurthy, Prasad, Vikram Singh Pathania, and Sharad Tandon. *Food Price Subsidies and Nutrition: Evidence from State Reforms to India's Public Distribution System*. SSRN, 2014. <http://ssrn.com/abstract=2345675>.

The Indian Public Distribution System (PDS) has been quite controversial. This study takes advantage of a natural experiment, comparing changes in nutrition in Chhattisgarh (after this state greatly strengthened its PDS) with neighboring states and with people in Chhattisgarh who were not PDS eligible. Demonstrates that the availability of subsidised rice led to increases in intake of pulses and meat as well as rice.

Wise, Timothy A. "Us Opposition to Ambitious Indian Program a 'Direct Attack on the Right to Food'." Global Post Blogs, 2013
<http://www.globalpost.com/dispatches/globalpost-blogs/global-pulse/obama-administration-food-security-act>.

Comment on debate before the 2014 Bali meeting of the Ministerial Council of the WTO where the US sought to force India to dismantle its Public Distribution System on the grounds that it is 'trade distorting'.

GHW. "Nutrition and Food Sovereignty." Chap. C3 In *Global Health Watch 4: An Alternative World Health Report*, edited by Editorial group, 198-212. London and New York: Zed Books, 2014. http://www.ghwatch.org/sites/www.ghwatch.org/files/C3_0.pdf

Presents two case studies from India and from the Pacific Islands exploring nutrition status in relation to food systems and food policy. The Indian case looks at state involvement in food distribution

Stockfeed, biofuels and land-grabbing; the corporate restructuring of global food systems

Food Tank. *Rethinking Industrial Animal Production* Food Tank, 2014.

<http://foodtank.com/news/2014/11/new-research-rethinking-industrial-animal-production>.

Provides a well referenced overview of criticisms of intensive industrial animal production. Highlights antibiotic use, use of water, diversion of cropland to feedstock, waste and other problems.

Steinfeld, Henning, Pierre Gerber, Tom Wassenaar, Vincent Castel, Mauricio Rosales, and Cees de Haan. *Livestock's Long Shadow: Environmental Issues and Options*. Rome: FAO, 2006. <http://www.fao.org/docrep/010/a0701e/a0701e00.HTM>.

In-depth assessment of the various impacts of the world's livestock sector on the environment highlighting the contribution of animal agriculture to climate change and air pollution, to land, soil and water degradation and to the reduction of biodiversity.

Pimentel, David, and Marcia Pimentel. "Sustainability of Meat-Based and Plant-Based Diets and the Environment." *The American Journal of Clinical Nutrition* 78, no. 3 (2003): 660S-63S. <http://ajcn.nutrition.org/content/78/3/660S.abstract>

Compares the land, water and energy use of a meat-based diet with those of a plant-based diet. Finds that, having regard to environmental limits and global food security, the meat based food production system, as in the US, is unsustainable.

High Level Panel of Experts on Food Security and Nutrition. *Biofuels and Food Security*. Rome: FAO, 2013.

http://www.fao.org/fileadmin/user_upload/hlpe/hlpe_documents/HLPE_Reports/HLPE-Report-5_Biofuels_and_food_security.pdf.

In depth review of the development of biofuels industry, including its use of land and water, and its implications for food security. Highlights the need for policy coherence between biofuels and food policies.

McMichael, Philip. "The Land Question in the Food Sovereignty Project."

Globalizations (2014): 1-18. doi: <http://dx.doi.org/10.1080/14747731.2014.971615>.

Explores the implications for food sovereignty of so-called 'land grabbing'. Highlights the investment flows funding the enclosure of land for industrial agriculture and/or speculation, challenging the rights of small producers. Calls for a new discursive politics to reframe what is at stake, namely the

protection and support of a production model based on social co-operation, multifunctionality and ecologically restorative principles.

The High Level Panel of Experts on Food Security and Nutrition. *Land Tenure and International Investments in Agriculture* Rome: Committee on Food Security, FAO, 2011. http://www.fao.org/fileadmin/user_upload/hlpe/hlpe_documents/HLPE-Land-tenure-and-international-investments-in-agriculture-2011.pdf.

Panel commissioned by CFS to report on land tenure and international investment in agriculture, and in particular on: –the respective roles of large-scale plantations and of small-scale farming, including economic, social, gender and environmental impacts. Concludes that large scale investment in land enclosures is damaging the food security, incomes, livelihoods and environment for local people. Highlights speculation as well as growing demand for food, feed, biofuels, minerals and timber as driving large scale international land investments.

Margulis, Matias E., Nora McKeon, and Saturnino M. Borrás. "Land Grabbing and Global Governance: Critical Perspectives." *Globalizations* 10, no. 1 (2013/02/01 2013): 1-23. doi: <http://dx.doi.org/10.1080/14747731.2013.764151>.

Introduction to a collection of articles on land grabbing. Situates land grabbing in an era of advanced capitalism, multiple global crises, and new configurations of power and resistance in global governance institutions.

Cotula, Lorenzo, Sonja Vermeulen, Rebeca Leonard, and James Keeley. *Land grab or development opportunity? Agricultural Investment and International Land Deals in Africa*. Rome: FAO, 2009. <http://www.fao.org/docrep/011/ak241e/ak241e00.HTM>.

Discusses key trends and drivers in land acquisitions, the contractual arrangements underpinning them and the way these are negotiated, as well as the early impacts on land access for rural people in recipient countries.

References dealing with diet related NCDs

Hawkes, Corinna. "Uneven Dietary Development: Linking the Policies and Processes of Globalization with the Nutrition Transition, Obesity and Diet-Related Chronic Diseases." *Globalization and Health* 2, no. 4 (2006). doi: <http://dx.doi.org/10.1186/1744-8603-2-4>.

Reviews the pathways through which globalization can influence diet. Focuses on three processes (i) production and trade of agricultural goods; (II) foreign direct investment in food processing and retailing; and (III) global food advertising and promotion and discusses each of these with history, technical detail and case studies. 'Agricultural production and trade policies have

enabled more vegetable oil consumption; policies on foreign direct investment have facilitated higher consumption of highly-processed foods, as has global food marketing. These dietary outcomes also reflect the socioeconomic and cultural context in which these policies are operating.'

Highlights the convergence in food consumption globally plus the development of niche markets, including markets for 'healthy choices' including fruit and vegetables and excluding trans fats. 'This convergence-divergence duality raises the policy concern that globalization will exacerbate uneven dietary development between rich and poor. As high-income groups in developing countries accrue the benefits of a more dynamic marketplace, lower-income groups may well experience convergence towards poor quality obesogenic diets, as observed in western countries.'

Hawkes, Corinna. "The Influence of Trade Liberalisation and Global Dietary Change: The Case of Vegetable Oils, Meat and Highly Processed Foods." Chap. 3 In *Trade, Food, Diet and Health: Perspectives and Policy Options*, edited by Corinna Hawkes, Chantal Blouin, Spencer Henson, Nick Drager and Laurette Dubé, 35-59. Chichester: Blackwell, 2010.

This is an exceptional article in which Hawkes traces the liberalisation of trade in vegetable oils, meat and highly processed foods and reviews the evidence regarding the consequent impact on price, availability, marketing and consumption. Concludes that trade liberalisation has facilitated the increased consumption, particularly in developing countries of vegetable oils, meat and highly processed foods.

Lobstein, Tim. "Tackling Childhood Obesity in an Era of Trade Liberalisation." Chap. 11 In *Trade, Food, Diet and Health: Perspectives and Policy Options*, edited by Corinna Hawkes, Chantal Blouin, Spencer Henson, Nick Drager and Laurette Dubé, 195-218. Chichester: Blackwell, 2010.

Starts by exploring investment in manufacturing, retail and marketing for foods contributing to childhood obesity. The drawing on a range of WHO reports it sets out specific policy options (global, national, and local) to address the trade-related influences on childhood obesity.

Hawkes, Corinna, Mickey Chopra, and Sharon Friel. "Globalization, Trade and the Nutrition Transition." Chap. 10 In *Globalization and Health: Pathways, Evidence and Policy*, edited by R. Labonté, R. Schrecker, C. Packer and V. Rummels, 235-62. London: Routledge, 2012.

Sets out the trends in global nutrition including concomitant under-nutrition and obesity/overweight and reviews the kinds of social change and changes

in food systems associated with these trends. Describes the role of transnational food companies (TFCs) and the significance of trade liberalisation and increased FDI flows in driving changes in national food systems.

Drewnowski, Adam, Andrew S. Hanks, and Trenton G. Smith. "International Trade, Food and Diet Costs, and the Global Obesity Epidemic." Chap. 5 In *Trade, Food, Diet and Health: Perspectives and Policy Options*, edited by Corinna Hawkes, Chantal Blouin, Spencer Henson, Nick Drager and Laurette Dubé, 77-90. Chichester: Blackwell, 2010.

Very useful chapter is structured around five 'propositions' regarding food choices and costs, in each case citing relevant evidence; propositions: (i) world trade has reduced the relative cost of dietary energy; (ii) energy dense foods and diets cost less; nutrient dense foods and diets cost more; (iii) consumption of energy dense foods and diets increase as incomes decline; (iv) low cost energy dense diets contribute to obesity among the poor; (v) rising global food prices count lead to increasing global obesity rates.

Finkelstein, Eric A., Christopher J. Ruhm, and Katherine M. Kosa. "Economic Causes and Consequences of Obesity." *Annual Review of Public Health* 26, no. 1 (2005): 239-57. doi: <http://dx.doi.org/doi:10.1146/annurev.publhealth.26.021304.144628>.

Examines economic causes behind the obesity epidemic; describes economic consequences of obesity, including increasing obesity-related medical expenditures; and discusses the role of government in combating the obesity epidemic.

Atkins, Vincent J. "Agricultural Trade Policy Instruments to Promote Healthy Diets in Developing Countries: An Assessment of the Opportunities within the Framework of the Wto Agreement on Agriculture and the Doha Development Agenda." Chap. 14 In *Trade, Food, Diet and Health: Perspectives and Policy Options*, edited by Corinna Hawkes, Chantal Blouin, Spencer Henson, Nick Drager and Laurette Dubé, 264-78. Chichester: Blackwell, 2010.

Reviews the provisions of the AoA and reform proposals being considered under the Doha Development Agenda (DDA), in particular, market access, domestic support and export competition. Summarises the flexibilities in the AoA and under the DDA which might enable the promotion of healthy diets and in the DDA.

Diet related NCDs across the regions

Goryakin, Yevgeniy, Tim Lobstein, W. Philip T. James, and Marc Suhrcke. "The Impact of Economic, Political and Social Globalization on Overweight and Obesity in

the 56 Low and Middle Income Countries." *Social Science & Medicine* 133 (5// 2015): 67-76. doi: <http://dx.doi.org/http://dx.doi.org/10.1016/j.socscimed.2015.03.030>.

Presents an econometric analysis of influence of economic, political and social globalization on obesity and overweight in adult women across the period 1991-2009. Globalization, in particular the components classified under social and political, has a strong influence on obesity in younger adult women.

Baker, Phillip, Adrian Kay, and Helen Walls. "Trade and Investment Liberalization and Asia's Noncommunicable Disease Epidemic: A Synthesis of Data and Existing Literature." *Globalization and Health* 10, no. 1 (2014): 66. doi: <http://dx.doi.org/10.1186/s12992-014-0066-8>.

Extensive literature review; identifies seven key challenges to governing the health–trade nexus as it relates to risk commodities and non-communicable diseases in Asia.

Grain. *Against the Grain: Free Trade and Mexico's Junk Food Epidemic*. Barcelona: Grain, 2015. <http://www.grain.org/article/entries/5170-free-trade-and-mexico-s-junk-food-epidemic>.

Comments on obesity and hunger in Mexico. Links investment provisions in NAFTA to the increase in foreign investment (largely from the US) in food processing and retail in Mexico and increases in the consumption of sugar sweetened beverages. Links hunger to the dismantling of support for small farmers which followed NAFTA.

Thow, Anne Marie, and Corinna Hawkes. "The Implications of Trade Liberalization for Diet and Health: A Case Study from Central America." *Globalization and Health* 5, no. 1 (2009): 5. <http://www.globalizationandhealth.com/content/5/1/5>

Explores the relationship between trade liberalization policies and food imports and availability (and implications for diet and health) using Central America as a case study region. Concludes that the policies of trade liberalization in Central American countries over the past two decades, particularly in relation to the United States, have been a factor in facilitating rising rates of obesity and chronic diseases such as cardiovascular disease and cancer.

Thow, Anne Marie, Wendy Snowdon, Ronald Labonté, Deborah Gleeson, David Stuckler, Libby Hattersley, Ashley Schram, Adrian Kay, and Sharon Friel. "Will the Next Generation of Preferential Trade and Investment Agreements Undermine Implementation of the Global Action Plan for Prevention and Control of Noncommunicable Diseases? A Prospective Policy Analysis of the Trans Pacific

Partnership Agreement." *Health Policy* 119, no. 1 (2014): 88-96. doi:

<http://dx.doi.org/10.1016/j.healthpol.2014.08.002>.

Assesses the Trans Pacific Partnership Agreement (TPPA) as an example of a new generation of economic integration ('trade') investment agreements focusing specifically on nutrition 'policy space' and the prevention of noncommunicable diseases (NCDs). The authors evaluate the chapters of the Korean US Trade Agreement (KORUS) against the WHO's NCD Global Action Plan and identify a range of provisions which are likely to constrain regulatory and fiscal policies for public health. Concludes with suggestions for exclusions and exceptions and stronger international standards for arbitral guidance in trade disputes.

WHO, UNDP, and UNOHCHR. *Pacific Trade and Human Rights*. 2014.

http://www.wpro.who.int/southpacific/publications/pacifictrade_humanrights/en/.

Reviews the human rights implications of trade liberalisation in the Pacific Islands. Calls for a rights based approach to trade negotiations to find strategies for sustainable development which do not harm human rights.

Sahal Estimé, Michelle, Brian Lutz, and Ferdinand Strobel. "Trade as a Structural Driver of Dietary Risk Factors for Noncommunicable Diseases in the Pacific: An Analysis of Household Income and Expenditure Survey Data." *Globalization and Health* 10, no. 1 (2014): 48.

Develops cross-country profiles of food consumption and expenditure patterns in the Pacific, highlighting the main 'unhealthy' food imports in each country to inform targeted policymaking. Confirms previous findings on trade as a structural driver of NCD risk and identifies the top imported foods that could serve as policy targets.

Snowdon, Wendy, Astika Raj, Erica Reeve, Rachael Guerrero, Jioje Fesaitu, Katia Cateine, and Charlene Guignet. "Processed Foods Available in the Pacific Islands." *Globalization and Health* 9, no. 1 (2013): 53.

Reports on a dataset developed for the Pacific Islands on nutrient composition of processed foods sold and their sources. Concludes that the globalisation of the food supply is impacting on diets in the Pacific Islands.

Cassels, Susan. "Overweight in the Pacific: Links between Foreign Dependence, Global Food Trade, and Obesity in the Federated States of Micronesia." *Globalization and Health* 2, no. 1 (2006): 10.

<http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=1533815>

Case study of the Federated States of Micronesia (FSM) which has high rates of overweight and obesity. Focuses on social and developmental causes of obesity. Reviews the long history of foreign rule and social change over the last 100 years, and suggests that a combination of dietary change influenced by foreigners, dependence on foreign aid, and the ease of global food trade has contributed to poor diet and increased rates of obesity. Highlights the Pacific tuna trade as an example of how foreign dependence and global food trade exacerbates the obesity epidemic.