


Spring 2016

# Globalization of the Food Industry: Transnational Food Corporations, the Spread of Processed Food, and Their Implications for Food Security and Nutrition

Elizabeth Black

*SIT Graduate Institute - Study Abroad*, eblack4@luc.edu

Follow this and additional works at: [http://digitalcollections.sit.edu/isp\\_collection](http://digitalcollections.sit.edu/isp_collection)

 Part of the [Food Security Commons](#), [Growth and Development Commons](#), [Income Distribution Commons](#), and the [International and Community Nutrition Commons](#)

---

## Recommended Citation

Black, Elizabeth, "Globalization of the Food Industry: Transnational Food Corporations, the Spread of Processed Food, and Their Implications for Food Security and Nutrition" (2016). *Independent Study Project (ISP) Collection*. Paper 2353.  
[http://digitalcollections.sit.edu/isp\\_collection/2353](http://digitalcollections.sit.edu/isp_collection/2353)

This Unpublished Paper is brought to you for free and open access by the SIT Study Abroad at SIT Digital Collections. It has been accepted for inclusion in Independent Study Project (ISP) Collection by an authorized administrator of SIT Digital Collections. For more information, please contact [digitalcollections@sit.edu](mailto:digitalcollections@sit.edu).

GLOBALIZATION OF THE FOOD INDUSTRY: TRANSNATIONAL FOOD  
CORPORATIONS, THE SPREAD OF PROCESSED FOOD, AND THEIR  
IMPLICATIONS FOR FOOD SECURITY AND NUTRITION

Elizabeth Black  
Spring 2016

SIT Switzerland: Global Health and Development Policy  
Dr. Alexandre Lambert

Loyola University Chicago  
International Studies, Communication Studies

## **Abstract**

We are currently experiencing a significant shift in our world's food systems and dietary patterns. Access, availability, and the quality of food are changing and the need for proper nutrition and food security has come to the forefront of the global health agenda. While globalization has fostered greater variety and access to food in many places; access to healthy, affordable food is not universal, leaving many populations buying cheaper food that has poor nutritional value. My purpose for this paper is to determine how the forces of globalization, the business practices of transnational food companies, and the prevalence of processed foods contribute to these shifts in food security and nutrition.

I have found that urbanization and foreign direct investment lead to greater availability, affordability, and consumption of processed westernized foods due to an increased presence of transnational food corporations in local markets. This presence highly influences consumer preference and consumption of processed foods due to the advanced advertising, marketing and business strategies of large companies. Additionally, the sheer control that large food corporations have over domestic markets puts small farmers at a disadvantage because they are often unable to compete with the high international standards and market power of such corporations. As a result, food security, food sovereignty, and the presence of healthy food can be diminished. This creates adverse health affects like malnutrition, which can lead to disease and lower economic productivity, among other things. Certain forces of globalization and business practices of transnational food corporations, when they go unmonitored and unaccounted for, can contribute greatly to food insecurity and malnutrition. However, globalization and the private sector can also be a part of the solution in combatting these ills. Overall, the purpose of this paper is to shed light on flaws within the global food system so that

we may better approach more equitable, sustainable, and healthy food systems in developing countries.

## **Preface**

In general, I conduct this research with a deep interest in the global paradox of overnutrition and undernutrition, with an attempt to understand the contemporary global food system as it is affected by increasing external influence. Additionally, I combine my passions for food, nutrition, and sustainable food development in low-income countries. Food security and nutrition levels in developing countries are often dependent on forces of globalization, such as urbanization and foreign direct investment encouraged by free market trade and capital flow. Specifically, such forces give rise to powerful, sophisticated new actors who play a role in this shift in food systems and dietary patterns: multinational food and beverage corporations. These actors have immense control over food systems around the world. Their market power, production capabilities, and marketing/advertising strategies create food systems in which populations become dependent on global food corporations for their food supply – often with little choice. When such corporations become dominant in the markets of developing countries and out-compete local producers like small farmers, nutrition and food insecurity may be compromised.

I am grounded in this subject by my strong belief that food security, including the ability to maintain proper nutrition, is a universal human right and that anything that impedes access to food security disempowers and undermines the livelihoods of populations. However, I am aware of the fact that the globalization of the food industry is in many ways positive, as it allows for the greater movement of goods, ideas, technology, and business opportunities that may improve food security and nutrition. Overall, my aim through this paper is to understand how the practices of

large global food producers and the processed food they promote can undermine the world's state of food security and nutrition. I conduct this research from a learning perspective, with no previous conflicts of interest that inhibit my views on the topic. My hope is to provide a perspective on globalization of the food industry that highlights the needed improvements within the global food system. This paper is not necessarily a criticism of globalization or transnational food corporations, since both can and do provide benefits in many countries around the world. Rather, it is an overview of how globalization, transnational food corporations, and the spread of processed food have created food systems in many countries that are not sustainable for long-term food security and nutrition.

### **Acknowledgments**

There are many people who helped shape the trajectory of this paper. Without the expertise and willingness of various experts, professionals, and authors, my research methods and my independent study project would not be where it is today. Thank you to the SIT Global Health and Development Policy staff for their invaluable guidance, resources, and support. I would also like to thank each and every one of the professionals who took the time to speak with me about this subject: Ms. Siva Jamal Aziz of the World Food Programme; Mr. Christoph Spennemann of UNCTAD; Mr. Diwakar Dixit of the World Trade Organization; and Ms. Stineke Oenema of the United Nations Standing Committee on Nutrition. Additionally, I would like to thank those who have dedicated their time and lives to research and analyze the forces of globalization, food production, food security, and nutrition. Whether it be an individual or an entire organization, their research has inspired me to actively pursue answers to my own questions about these interrelated subjects. Lastly, I would also like to thank my fellow SIT students and my family for their support and enthusiasm towards my research and education.

## TABLE OF CONTENTS

<b>ABSTRACT</b>	2-3
<b>PREFACE</b>	3-4
<b>ACKNOWLEDGMENTS</b>	4
<b>TABLE OF CONTENTS</b>	5
<b>INTRODUCTION</b>	6-7
<b>RESEARCH METHODOLOGY</b>	7-8
<b>LITERATURE REVIEW</b>	8-9
<b>GLOSSARY &amp; ABBREVIATIONS</b>	9-11
<b>ANALYSIS</b>	
<b>PART I: THE FORCES OF GLOBALIZATION: INFLUENCING DIETARY PATTERNS AND THE NUTRITION TRANSITION</b>	11-17
<b>URBANIZATION</b>	12-15
<b>FOREIGN DIRECT INVESTMENT</b>	15-17
<b>PART II: TRANSNATIONAL CORPORATIONS AND THEIR HARMFUL EFFECTS ON FOOD SECURITY AND FOOD SOVEREIGNTY</b>	18-25
<b>TNCS VS. SMALL PRODUCERS: WHO DOMINATES?</b>	18-22
<b>BUSINESS, MARKETING, AND ADVERTISING STRATEGIES OF TNCS</b>	22-25
<b>PART III: THE SPREAD OF PROCESSED, NUTRIENT-POOR, WESTERN-STYLE FOOD: WHY THIS IS A PROBLEM</b>	26-36
<b>EVOLUTION OF THE GLOBAL FOOD SYSTEM</b>	27-28
<b>EVOLUTION OF DIET: WHAT OUR CURRENT DIET LOOKS LIKE</b>	28-32
<b>HOW THESE CHANGES EXACERBATE MALNUTRITION</b>	32-36
<b>CONCLUSION</b>	36-39
<b>BIBLIOGRAPHY</b>	40-42

## Introduction

The phenomenon of globalization is having a significant effect on the food systems of developing countries around the world. Forces manifested by globalization, such as market and trade liberalization, capital flow, and urbanization, have changed the nature of our food systems by increasing the diversity and affordability of food, but also by changing its quality and nutritional value. However, the increase in access, availability, and affordability of food by globalization is by no means universal. Many populations in developing countries struggle to find or afford nutritious food, like fresh fruits and vegetables. This is largely because, through such forces of globalization, markets for Western-style and processed food products have found a place in developing countries worldwide. Many of these food products are energy dense and high in sugar, salt, and unhealthy fats – which is not nutritious or sustainable for a healthy lifestyle. However, because powerful multinational food corporations control many of these markets, small food producers struggle to compete for control of their local food systems. The market power of transnational food corporations combined with the spread of processed food products is impacting food security and nutrition patterns worldwide.

Overall, the purpose of this paper is to explore how facets of globalization affect food systems and dietary patterns in developing countries. More specifically, I aim to answer the question: *How has globalization of the food industry, through the business practices of transnational food corporations and the spread of nutrient-poor, processed food, impacted food insecurity and malnutrition in developing countries?* I argue that globalization of the food industry has reinforced food security and poor nutrition in developing countries by (1) allowing large food corporations to monopolize local food systems and out-compete small producers through trade and market liberalization, foreign direct investment, and advanced marketing

mechanisms and (2) by the spread and consumption of nutrient poor, processed, and fast foods which exacerbate malnutrition and NCDs through increased intake of sugar, salt, bad fats, and unhealthy additives.

In this paper, I will discuss three main ideas: (1) how forces of globalization have influenced the nutrition transition and changes in dietary patterns; (2) how transnational corporations can have harmful effects on food security and food sovereignty; (3) the effect of processed, nutrient-poor food on nutrition and the rise of non-communicable diseases. The first section will discuss the phenomenon of urbanization and growing foreign investment and how they contribute to changes in the way the world eats. The second section will elaborate on the dangers TNCs may pose for small, local food producers and the business, marketing, and advertising strategies that influence dietary consumption. The third section will discuss malnutrition as a result of nutrient-poor food, with a primary focus on overnutrition. It will also address the growing prevalence of NCDs in developing countries and how this is related to nutrition. Through all of these sections, I attempt to provide an overview of how globalization of the food industry adversely influences food insecurity and nutrition, through transnational corporations and the availability and consumption of nutrient-poor foods.

### **Research Methodology**

I utilized several different types of data throughout my research. My primary data consists mostly of in-person and Skype interviews that I conducted in Switzerland, but also of relevant government documents. Criteria for the selection and recruitment of interviewees includes: (1) individuals and organizations well-educated and experienced on any or all of the following topics: food security, food systems and food sovereignty, nutrition, forces of globalization, food trade relationships with developing countries, and the business practices of



multinational and transnational corporations; (2) individuals that have a sufficient understanding of the complex relationship(s) between these concepts; (3) individuals and organizations primarily located in Switzerland, though I did not exclude relevant sources who are based elsewhere. I researched potential interviewees via the Internet and also utilized recommendations I received from my advising professors. For the interviews, I prepared all of my questions in advance, but also encouraged unstructured conversation after the formal interview to promote more dialogue.

For ethical considerations, I assured my interviewees that they were free to skip any questions they did not want to answer, or were not legally allowed to answer due to employment or conflict of interest reasons. I also offered to keep their personal information anonymous if they desired. I had problems with non-response from individuals and organizations who (1) did not respond to my email or phone interview requests; (2) were away on work assignments or holiday and unable to complete an interview. My secondary data consisted of academic journal articles, research reports, organization publications, books, and bibliographies (used to locate sources) that I collected from the library and reputable Internet databases and websites. I utilized Loyola University Chicago's library online database to obtain access to most of the relevant journals, reports, and academic or governmental publications used in this research. Additionally, I utilized the online database at the United Nations library to gain access to additional documents as well as print books found within the UNOG library.

### **Literature Review**

There was an immense amount of literature that supported my research. Each journal article, book, and report provided unique thoughts, data, and perspectives that were relevant to different sub sections of the research. Some articles were consistently relevant to many areas,

while others were relevant to just one section or idea. There were four major reports that provided a fantastic overview of the major components of my research subject: (1) *Globalization of food systems in developing countries: impact on food security and nutrition* by the Food and Agriculture Organization of the United Nations (2) *2016 Global Food Policy Report* and the *2015 Global Nutrition Report*, both by the International Food Policy Research Institute (3) *Unhealthy Developing World Food Markets* by The Rockefeller Foundation.

Jean Zeigler's book, *The Fight for the Right to Food*, was also a top source in helping me understand the complex and not so forgiving factors of globalization and the business practices of global food producers. Additionally, Corinna Hawkes' article "*Uneven dietary development: linking the policies and processes of globalization with the nutrition transition, obesity and diet-related chronic diseases.*" provided a fantastic cross-analysis of globalization, the nutrition transition, obesity, and NCDs. This was very helpful in improving my understanding of how all four are complexly interrelated. In regards to understanding how TNCs and the spread of processed food affect nutrition and health, the article "Food Consumption and its Impact on Cardiovascular Disease: Importance of Solutions Focused on the Globalized Food System," by Anand *et al.* and the article "Global Nutrition Transition and the pandemic of obesity in developing countries," by Popkin *et al.* were invaluable. The rest of the articles, webpages, and books I utilized each had their own purpose within the research and were important in various ways. While there is endless research on many of the components related to this subject, I found that the specific literature I used helped provide a comprehensive learning and understanding experience.

## **Glossary and Abbreviations**

First, it is important to define several key concepts in order to provide a clear understanding of their meaning in the context of this research. Such concepts include: globalization; food security; food sovereignty; Big Food; food systems; malnutrition; and nutrition. The term globalization will follow the WHO's two-part definition: "the opening of borders to increasingly fast flows of goods, services, finance, people and ideas across international borders; and the changes in institutional and policy regimes at the international and national levels that facilitate or promote such flows."<sup>1</sup> Second, food security is also defined in accordance with the WHO definition, meaning that people at all times have "access to sufficient, safe, nutritious food to maintain a healthy and active life."<sup>2</sup> Food security is made up of three main pillars: (1) accessibility, including affordability and allocation; (2) availability, which includes production and distribution; (3) utilization, which is knowledge about nutrition and health. This concept also focuses on the importance of an individual's energy, nutrient needs for life, activity, pregnancy, growth and long-term capabilities. Thus, food insecurity exists "when people do not have adequate physical, social or economic access to food" and the above attributes are compromised.<sup>3</sup>

Third, food sovereignty was a term first coined by the Via Campesina movement in 1996. Their definition is being used in this paper for its comprehensive and straightforward explanation. Essentially, food sovereignty is the right of populations to have healthy and culturally appropriate food produced through their own sustainable, defined food and agriculture systems. It also, "puts those who produce, distribute and consume food at the heart of food

---

<sup>1</sup> WHO. "Globalization." Last modified 2016. <http://www.who.int/trade/glossary/story043/en/>

<sup>2</sup> WHO. "Food Security." Last modified 2016. <http://www.who.int/trade/glossary/story028/en/>

<sup>3</sup> *UN High Level Task Force on the Global Food Security Crisis*. United Nations, 2010. Print.

systems and policies rather than the demands of markets and corporations.”<sup>4</sup> Fourth, Marion Nestle and David Stuckler refer to “Big Food” as a term to describe multinational and transnational food companies with a large amount of concentrated market power<sup>5</sup>. I will also refer to such transnational companies as ‘TNCs’. Fifth, food systems refer to all of the activities that bring food from its origin to destination: production, processing, transport, and consumption of food. Food systems also encompass the economics, governance, and sustainability of food production and distribution.<sup>6</sup> Sixth, the term malnutrition will be defined as: “any state of nutritional imbalance and includes under- and over-nutrition and inadequacies in micronutrients.”<sup>7</sup> Lastly, I will define nutrition as: the state of obtaining the right amount of healthy food with essential nutrients that your body needs to function optimally. Relevant abbreviations include: TNC for transnational corporations and NCD for non-communicable disease.

## **Part I: The Forces of Globalization: Influencing Dietary Patterns and the Nutrition Transition**

There are several tenets of globalization that play a role in influencing dietary patterns and the resulting nutrition transition. Due to the broad nature of globalization, I focus on two main areas: urbanization and growing foreign investment. While the natures of these topics are

---

<sup>4</sup> Via Campesina. “Food Sovereignty and Trade: Declaration of Nyéléni.” February 27, 2007. <http://viacampesina.org/en/index.php/main-issues-mainmenu-27/food-sovereignty-and-trade-mainmenu-38/262-declaration-of-nyi>

<sup>5</sup> Nestle, Marion, and Stuckler, David. “Big Food, Food Systems, and Global Health,” *PLoS Medicine* 9, no. 6 (2012): p. 1. Accessed April 17, 2016. Doi: 10.1371/journal.pmed.1001242

<sup>6</sup> Future of Food: The Oxford Martin Programme on the Future of Food. “What is the food system?” Last modified, 2016. <http://www.futureoffood.ox.ac.uk/what-food-system>

<sup>7</sup> *Globalization of food systems in developing countries: impact on food security and nutrition*. Rome: Food and Agriculture Organization of the United Nations, 2004, p.13. Accessed April 13, 2016. <http://www.fao.org/3/a-y5736e.pdf>

increasingly complex on their own, I aim to understand their importance in relation to the changing nutritional status and dietary patterns in global society. There are many perspectives and components of these relationships and there lies no simple answer for why forces of globalization, such as urbanization and foreign direct investment, have the influence that they do. Regardless, it is important to understand that these areas play a significant role in how populations obtain, choose, and consume their food.

### *Urbanization*

Urbanization has become one of the most important influences on dietary patterns in developing countries. Now more than ever, people are migrating from rural to urban areas in response to a wide range of push and pull factors, like better living conditions, employment opportunities, healthcare and education. Currently, more than 54% of the world's population lives in urban areas, with a projected increase to 66% by 2050. Most of this urban growth is occurring in countries within Africa and Asia<sup>8</sup>. With a greater amount of jobs and a greater need for a higher income, more and more people are entering the workforce – including women, who typically have held more informal work roles within the home. With more of the population entering the workforce, there has been a significant shift in dietary patterns for several reasons. First, there is less ability, time, and desire to prepare food at home. The lack of land for farming along with decreased time spent at home causes families to increasingly need or want to eat outside of the traditional home setting. For example, in Tanzania, 70% of calories consumed by low to middle income groups come from street food – including fast food, packed food, high

---

<sup>8</sup> “World’s urban population increasingly urban with more than half living in urban areas.” *Un.org*. Last modified July 10, 2014. <http://www.un.org/en/development/desa/news/population/world-urbanization-prospects-2014.html>

amounts of meat, and sweets.<sup>9</sup> Thus, “attention to dietary balance and dietary quality, which was traditionally “intuitive” at the household level, is now subject to wider cultural changes and external influence.” This is extremely important because it shows that people are (1) giving up control over the type and quality of food they are putting into their bodies (2) increasingly influenced by the globalization of food products and the corresponding consumption patterns.<sup>10</sup>

Another way dietary patterns are changing as a result of urbanization is through the presence of global food companies and their corresponding ideas, culture, and infrastructure. New technologies, mass media, and improved infrastructure has led to an increase in the availability and access to non-traditional, imported foods.<sup>11</sup> As a result, there are a greater number of fast food joints, informal or formal restaurants or bars, supermarkets, and other convenient food options. Access to these new foods begins to correspond with growing economic and social development<sup>12</sup>. As people increasingly interact with the urban environment and corresponding forces of globalization, growing cultural and economic behaviors regarding the idea of modernization and convenience heavily influences the consumption of foods outside of the home. Non-traditional food found in fast-food joints and convenience stores have come to be seen as more sophisticated, modern eating experiences, so people prioritize those foods over the food found in traditional wet markets and mom-and-pop stores. As a result, tastes and

---

<sup>9</sup> Matuschke, Ira. “Rapid urbanization and food security: using food density maps to identify food security hotspots.” *Food and Agriculture Organization of the United Nations*. 2009, p. 6. [http://www.fao.org/fileadmin/user\\_upload/esag/docs/RapidUrbanizationFoodSecurity.pdf](http://www.fao.org/fileadmin/user_upload/esag/docs/RapidUrbanizationFoodSecurity.pdf)

<sup>10</sup> *Globalization of food systems in developing countries: impact on food security and nutrition*. Rome: Food and Agriculture Organization of the United Nations, 2004, p. 11. Accessed April 13, 2016. <http://www.fao.org/3/a-y5736e.pdf>

<sup>11</sup> *Globalization of food systems in developing countries: impact on food security and nutrition*. p. 55.

<sup>12</sup> Popkin, Barry M. Adair, Linda S. Ng, Shu Wen. “Global Nutrition Transition and the pandemic of obesity in developing countries.” *Nutrition Reviews* 70 no. 1 (2012): 9. Accessed April 26, 2016. Doi: 10.1111/j.1753-4887.2011.00456.x

preferences become molded to these foods over time, so the demand for imported, processed, and typically nutrient-poor food increases while that of healthier food decreases. All of these changes mark a shift toward energy-dense foods that are high in sugar, salt, fats, and oils – all of which affect the nutrition of the individuals who consume them. This change in diet as a result of urbanization and urban ideas has become marked by increased intakes of saturated fat, cholesterol, and harmful refined ingredients.<sup>13</sup>

Additionally, rapid urbanization – where people are migrating to urban areas faster than the city can absorb their needs – is increasingly affecting food security. Rapid urbanization is becoming the norm in many developing countries and places a significant strain on the availability of goods and services, like food, for several reasons. First, as cities grow, land for agricultural use declines as residential and industrial areas expand outward. The land that is available for agricultural use may be less productive due to water or pollution constraints from corresponding urban domestic and industrial uses.<sup>14</sup> Second, a growing population demands a higher amount of food. If cities have precarious transportation and distribution infrastructure and technologies, the increased demand for food can put a significant strain on the supply of food products.<sup>15</sup> Thus, it is important to understand that while urbanization is increasingly characterized by the availability of unhealthy food, it may also be characterized by an utter lack of any food – a significant factor of urbanization that affects the food security, nutrition, and dietary patterns of populations.

---

<sup>13</sup> *Globalization of food systems in developing countries: impact on food security and nutrition.* p. 82

<sup>14</sup> Matuschke, Ira. “Rapid urbanization and food security: using food density maps to identify food security hotspots.” p. 5.

<sup>15</sup> *Ibid.*

While urbanization can provide various opportunities and benefits, including higher availability, affordability, quality, and diversity of food, it may also create food insecurity, malnutrition, and the disappearance of traditional food systems and producers. Urbanization is an extremely complex and dynamic concept, so it is difficult to simplify its effect on food systems and dietary patterns. However, it is crucial to have a basic understanding of its broader impact on the way food is viewed and consumed.

### *Foreign Direct Investment*

Foreign direct investment in developing countries also has a significant impact on changes seen in dietary patterns. Foreign direct investment (FDI) may be defined as a “long-term investment by an enterprise in one country into an enterprise in another, in which the foreign enterprise becomes...the parent (transnational) company.”<sup>16</sup> The saturation of markets in developed countries, along with the opening of new markets in developing countries, prompted foreign transnational food companies to invest in low-middle income countries all over the world<sup>17</sup>. Initial entry into markets focuses on packaged and highly processed foods that are marketed as exotic, convenient, and modern. Such investment has become so successful that food processing now has the highest amount of FDI compared to other parts of the food system. Most astonishing is the fact that FDI in the global processed foods market is more important than FDI in global trade.<sup>18</sup> This fact is extremely important because it reiterates just how much market power is involved within the global food industry – particularly the sector that markets the most unhealthy, nutrient-poor food. Such extensive investment by transnational Big Food companies

---

<sup>16</sup> 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): p. 6. Accessed April 20, 2016. Doi: 10.1186/1744-8603-2-4.

<sup>17</sup> Popkin, Barry. et al. “Global Nutrition Transition and the pandemic of obesity in developing countries.” p. 9.

<sup>18</sup> Hawkes, Corinna. “Uneven dietary development...” p. 6



has created food systems that are increasingly influenced by external forces, rather than forces within the domestic country.

Growth of foreign investment in developing countries has had several important effects. First, it made processed foods available and affordable to more people, thus encouraging the purchase and consumption of nutrient-poor foods. Second, it has created a rise in fast food chains, restaurants, and large supermarkets – all of which offer greater diversity, convenience, and quality of food, but compromise nutrition and health. The perceived modernization and wealth associated with buying from these entities has attached “social desirability” to processed, Western-style food and encouraged cultural behaviors geared toward its consumption.<sup>19</sup> Third, FDI has led to the simultaneous existence of dietary convergence and dietary adaptation. Dietary convergence has led to increased processed food consumption and dietary adaptation has led to a wider availability of processed foods targeted to various markets within developing countries.<sup>20</sup> I discuss these concepts in greater detail later in the analysis. Fourth, FDI has made it possible to increase sales of processed food, through the lowering of prices, creating new ways to purchase food, and enhancing effective marketing and advertising strategies that influence consumer preference.<sup>21</sup>

Lastly, FDI has allowed for increased control of domestic food systems by global food producers. Many developing countries want to attract foreign investment so as to fuel economic growth within their countries. As a result, many foreign food companies receive unilateral advantages from countries seeking their investment, such as exemption from taxes, zero or few

---

<sup>19</sup> “Unhealthy Developing World Food Markets,” *Rockefeller Foundation*. p. 5. Last modified May 2013. <https://www.rockefellerfoundation.org/app/uploads/Unhealthy-Developing-World-Food-Markets.pdf>

<sup>20</sup> Hawkes, Corinna. “Uneven dietary development...” p. 7

<sup>21</sup> Ibid.

restrictions on imports or exports, and unfortunately, the ability to ignore labor law provisions.<sup>22</sup> Additionally, companies also receive legal protection from trade agreements, such as bilateral investment agreements (BITs), or the GATT and TRIMs provisions under the World Trade Organization. Such agreements can protect companies from government actions that could prevent or impair profit making. All of these measures can be very profitable for large global food producers. Yet, when investment becomes profitable, large global food producers often take over local food production and distribution systems. While this may be beneficial in some places where there is a lack of food or quality, it can also exacerbate food insecurity and malnutrition for two reasons. First, it can steer support away from local food producers, production companies, and distribution companies who cannot compete with the unilateral and bilateral advantages that big companies are receiving. Second, it drives away the value of healthy, traditional food and promotes the consumption of food that is nutrient-poor and detrimental to health.

Foreign direct investment, much like urbanization, is extremely complex and subjective to different situations. Therefore, it is not my purpose to provide a comprehensive, detailed overview of foreign direct investment, but to provide a background that allows readers to draw on its influence and relationship with food security and malnutrition. Overall, foreign direct investment can be beneficial for many developing countries. But it can simultaneously be harmful. There is a strong need for more responsible investing, in a way that does not compromise the livelihoods of domestic producers or the food security and health of populations.

---

<sup>22</sup> *The Profit Behind Your Plate: Critical Issues in the Processed Food Industry*. Amsterdam: SOMO – Centre for Research on Multinational Corporations, 2006. p. 40. Accessed April 25, 2016. ISBN: 90-71284-11-5

## **Part II: Transnational corporations and their harmful effects on food security and food sovereignty**

In this section, I discuss the how transnational food corporations, or “Big Food”, can have harmful effects on the food security and food sovereignty of populations. I discuss two main concepts: (1) how TNCs can undermine the business of local food producers, such as small farmers (2) the business, marketing, and advertising strategies of TNCs and how they affect food sovereignty, consumption and consumer preference.

### *TNCs vs. Small Producers: Who Dominates?*

One of the most harmful effects on food security and food sovereignty, as a result of the practices of transnational corporations, is the undermining of small farmers and other local food producers. According to IFAD, there are about 500 million small farms in developing countries, which support about 2 billion people – more than one third of the world’s population.<sup>23</sup> Yet most of these small farmers and their families live on less than two dollars a day, as they are unable to keep up with increased demand, higher costs, and changing market developments. It is important to ask: why do some small farmers struggle to stay afloat when the globalization of ideas, technology, and new markets should make it easier to produce and distribute food? The answer often has to do with the practices and concentration of powerful transnational corporations who control various food markets.

Small farmers and producers can struggle because as TNCs gain more power through trade liberalization agreements, subsidies, and increased demand through investments abroad, they begin controlling many aspects of local food systems. In fact, Jean Zeigler argues that TNCs control the whole food chain, from the production, trade, and processing, to the marketing,

---

<sup>23</sup> IFAD. “Food prices: smallholder farmers can be part of the solution” Last modified 2016. [https://www.ifad.org/what/operating\\_model/tags/1963528](https://www.ifad.org/what/operating_model/tags/1963528)

retailing, and distribution of food.<sup>24</sup> Additionally, much of this control is concentrated within a few big companies rather than millions of smallholders.<sup>25</sup> Globalization affects this kind of market power in three ways. First, foreign companies become competitors with domestic producers by supplying food products to the domestic market. Second, this puts pressure on domestic producers, including small farmers, to lower their prices and increase their standards. Lastly, if domestic producers cannot lower their costs and increase standards without going bankrupt, they are forced to leave the market.<sup>26</sup> This process is exactly what allows TNCs to dominate domestic industries and put small producers out of business. In many cases, TNCs sell their food products at prices below the cost of production for farmers in developing countries, so it becomes increasingly difficult for domestic producers to compete. Mr. Christoph Spennemann, a legal expert with United Nations Commission on Trade and Development, says that this can be particularly detrimental for countries and farmers who have one or two primary exports, or a comparative advantage. While Spennemann believes that globalization can create better access to the global market by reducing trade barriers for agricultural goods, he argues that the subsidies and trade agreements that protect foreign markets and farmers in developed countries can be “disastrous” for farmers in developing countries who want to export.<sup>27</sup>

Additionally, this situation is also exacerbated by the poor access farmers have to credit arrangements, irrigation, and other technological supplies that would increase their productivity

---

<sup>24</sup> Zeigler, Jean. Golay, Christophe. Mahon, Claire. Way, Sally-Anne. *The Fight for the Right to Food*. United Kingdom: Palgrave Macmillan, 2011, 91.

<sup>25</sup> Stineke Oenema, interview/conversation with Elizabeth Black, *Skype*, May 2, 2016.

<sup>26</sup> Henderson, Dennis. Handy, Charles. Neff, Steven A. “The Processed Food Sector in the Global Perspective” in *Globalization of the Processed Foods Industry*. USDA, 1997. Accessed April 5, 2016. <http://www.ers.usda.gov/media/938639/aer742a.pdf>

<sup>27</sup> Cristoph Spennemann, interview by Elizabeth Black, *UNCTAD*, April 21, 2016.

and allow them to successfully lower costs.<sup>28</sup> Additionally, because their land is the most valuable property they own, it is the first thing to be taken away from them when they cannot make payments to creditors.<sup>29</sup> In an interview, Diwakar Dixit, an economic affairs officer who works in the Agricultural division of the World Trade Organization, argues that this lack of access to resources and government support for farmers is due to severe underinvestment in agriculture. Dixit believes that the governments of low to middle income countries need to invest in more training, research, and infrastructure that will allow farmers and distributors to deal with challenges and compete successfully on the global market.<sup>30</sup> Until then, the ability of farmers to compete against Big Food can be tainted and there lies a cyclical process that compromises the food sovereignty of farmers, local communities, and developing countries as a whole.

In fact, over the past 30 years, 49 of the least-developed countries have moved from being net food exporters to net food importers because subsidized food products from developed countries are cheaper than those produced domestically by small farmers and local producers.<sup>31</sup> Food import bills as a portion of GDP more than doubled between 1974 and 2004.<sup>32</sup> Additionally, according to Jean Zeigler, the cost of food imports hovers around 70% of total merchandise exports, which makes it increasingly difficult for developing countries to pay for

---

<sup>28</sup> Ramanujam, Nandini, Caivano, Nicholas, Semahagn, Abebe. "From Justiciability to Justice: Realizing the Human Right to Food," *McGill International Journal of Sustainable Development Law and Policy* 11, no. 1 (2015): p. 7. Accessed April 17, 2016. <file:///Users/ElizabethBlack/Downloads/11McGillIntlJSustDevLPoly.pdf>

<sup>29</sup> Ibid.

<sup>30</sup> Diwakar Dixit, interview by Elizabeth Black, *World Trade Organization*, April 27, 2016.

<sup>31</sup> Zeigler et al. *The Fight for the Right to Food*, 71.

<sup>32</sup> 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): p. 3. Accessed April 20, 2016. Doi: 10.1186/1744-8603-2-4

their food imports<sup>33</sup>. As a result, it becomes financially problematic to produce any food domestically and guarantee the funds to buy food, both at the family and country level. It is also important to note that a high level of food imports comes with a high level of dependency by populations. This can be dangerous for net food-importing countries because they are “relying primarily on global markets for food supplies and open trade policies [which] reduces the policy space to deal with market shocks.”<sup>34</sup>

All in all, there is an overwhelming theme in the relationship between large international food producers and small farmers: TNCs seek maximum profit and market power, both of which can violate the tenets of food sovereignty and human rights for small farmers. Essentially, with the dominance of “Big Food”, populations in the developing world, as well as their governments, have lost control of their food security and food sovereignty. Additionally, there is growing concern that local food culture and traditions are disappearing. With the growing presence of supermarkets and shopping malls, consumers are being attracted away from traditional and local community food stores and moving towards the diverse and cross-seasonal availability of food found in foreign store chains or supermarkets.<sup>35</sup>

While large suppliers may benefit populations by selling cheaper and higher quality foods, they may simultaneously disadvantage populations by putting small, local producers out of business and ridding communities of their unique local food culture. Thus, both food security and food sovereignty may become compromised with the presence of Big Food. It is important to note that food sovereignty includes emphasizing the needs of farmers and local citizens, not

---

<sup>33</sup> Zeigler et al. *The Fight for the Right to Food*, 71.

<sup>34</sup> “The State of Food Insecurity in the World.” Rome: *Food and Agriculture Organization of the United Nations*, 2015, p. 34. Accessed April 5, 2016. <http://www.fao.org/3/a4ef2d16-70a7-460a-a9ac-2a65a533269a/i4646e.pdf>

<sup>35</sup> *Globalization of food systems in developing countries: impact on food security and nutrition*. FAO. p. 17-18.

those of international markets and corporations. Small farmers and local food producers are incredibly important in preserving food security and sovereignty because they have the ability to improve food security within their own communities through local production and exports into the global market.<sup>36</sup> Therefore, their rights must be protected. Mr. Dixit argues that domestic handling of competition policy and investment is not enough to protect farmers in their own countries. Instead, he advocates the need for an international policy framework on competition and investment between foreign and domestic entities, so as to induce healthy competition and fair trade.<sup>37</sup>

### *Business, Marketing, and Advertising Strategies of TNCs*

One of the most interesting practices about “Big Food”, or transnational food corporations, is the sheer amount of business, marketing, and advertising strategies they use to elicit their dominance in the food industry. I will primarily emphasize the strategies of marketing and advertising, but will also discuss the role of intellectual property rights. There is one common theme associated with the practices of TNCs: mass amounts of capital earning and spending. For example, Nestlé, the Swiss company who employs over 330,000 people, had revenue of \$103.5 billion in 2014 – making it one of the largest food corporations in the world<sup>38</sup>. Other top ten food corporations also brought in enormous amounts of revenue in 2014: Unilever Group generated \$68.5 billion; PepsiCo at \$66.4 billion; and Coca-Cola at \$46.9 billion<sup>39</sup>. This

---

<sup>36</sup> Ramanujam, Caivano, and Semahagn, “From Justiciability to Justice: Realizing the Human Right to Food,” 18.

<sup>37</sup> Diwakar Dixit, interview by Elizabeth Black, *World Trade Organization*, April 27, 2016.

<sup>38</sup> Hess, Alexander E.M. “Companies that control the world’s food.” *USA Today*, Last modified August 16, 2014, <http://www.usatoday.com/story/money/business/2014/08/16/companies-that-control-the-worlds-food/14056133/>

<sup>39</sup> *Ibid.*

revenue is largely associated with the amount of successful marketing and advertising strategies that TNCs employ to generate profit.

According to the Food and Agriculture Organization, successful advertising by food companies plays a large role in the “rapid adoption of new foods in the diet”. Considering the enormous advertising and marketing expenditures of TNCs, this makes logical sense.

Advertising and marketing budgets of the world’s largest food companies can surpass country’s national expenditures on health education and promotion by large amounts.<sup>40</sup> Nestlé and Coca-

Cola respectively spent \$3 billion on advertising in 2014; PepsiCo spent \$2.5 billion; and

Unilever spent a whopping \$7.4 billion, which was more than their \$6.7 billion profit in 2014<sup>41</sup>.

What is the purpose behind spending large amounts on advertising and marketing? Essentially, the goal is to influence consumption habits and create demand, which drives production, and thus profit. This is done through a multitude of mediums: TV commercials; websites; sales promotions; viral marketing; celebrity, music, and sports sponsorships; product placement in films and television; and in-school marketing.<sup>42</sup> Big Food uses such methods for three particular purposes: (1) to urge new people to consume the product (2) to urge people already familiar with the product to consume it more frequently (3) to encourage more consumption of the product in one sitting.<sup>43</sup>

This is relevant to our research question for two reasons. First, it demonstrates the sheer amount of capital and power that food companies use to influence consumer preference, choice,

---

<sup>40</sup> *Globalization of food systems in developing countries: impact on food security and nutrition*. FAO. p. 12.

<sup>41</sup> Hess, Alexander E.M. “Companies that control the world’s food.” *USA Today*. Last modified August 16, 2014. <http://www.usatoday.com/story/money/business/2014/08/16/companies-that-control-the-worlds-food/14056133/>

<sup>42</sup> Hawkes, Corinna. “Uneven dietary development...p. 9.

<sup>43</sup> *Ibid.*



and dietary patterns across global borders. The influence of companies along with the acceptance by consumers creates a codependent relationship, in which one relies on the other for survival. Second, it demonstrates the increased presence and influence of large food producers in new domestic markets in developing countries. The overload of markets in high-income countries has caused Big Food to expand globally into low- and middle-income countries. Mass-marketing campaigns in accordance with foreign investment have played a huge role in successful global expansion and domestic market permeation.<sup>44</sup>

Essentially, marketing is a process of globalization, because it speeds up the availability, idea, and demand for diverse food products. There are three main components of this globalized food marketing: (1) the globalization of Big Food and the products they promote; (2) the globalization of advertising and marketing agencies targeted with promoting such food products; (3) the globalization of communication technologies<sup>45</sup>. Together, these forces have immense power to influence diets worldwide. According to Corinna Hawkes, author of *“Uneven dietary development...”* marketing increases “rapid product turnover” because it, “attracts attention to new products, creates perceived differences between similar products, and improves the apparent value and desirability of products.”<sup>46</sup> It is important to realize the power that marketing and advertising processes have on consumer preference, diet, business for local food producers, and the overall globalization of the food industry. People of low socio-economic status are often culturally influenced by the global dietary trend toward heavily advertised food products made

---

<sup>44</sup> Nestle, Marion, and Stuckler, David. “Big Food, Food Systems, and Global Health,” p. 1

<sup>45</sup> Hawkes, Corinna. “Uneven dietary development: linking the policies and processes of globalization with the nutrition transition, obesity and diet-related chronic diseases.” p. 13

<sup>46</sup> Hawkes, Corinna. “Uneven dietary development...” p. 9

with cheap oils, trans-fat, and sugar because of their earlier popularity with wealthier groups.<sup>47</sup> For example, in urban areas of Johannesburg, South Africa, fried food is considered to be “a sign of modern living and wealth” while boiled food is considered to be outdated and inferior.<sup>48</sup> The trend of mass advertising and marketing is monumental in determining what we eat and how much of it. The appeal to be “modern” by eating a Westernized diet is growing, and transnational food companies clearly understand that.

The use of ownership agreements and intellectual property rights is another method that allows Big Food to dominate food production, distribution, and influence consumer choice. Their ownership of brands, trademarks, colors, typeface, formulas, processing technologies, and other aspects of manufacturing and distribution determine the way their own products and the products of others are sold in the foreign market.<sup>49</sup> Spenneman, who works in the Intellectual Property and Technology unit at UNCTAD, articulates that it is difficult for developing countries to expand their technologies because companies in the north are often “very hesitant to share the benefits of their technologies with provider countries in the south.”<sup>50</sup> As a result, technologies and infrastructure that would improve developing countries’ ability to compete on the global market are often not made easily accessible by large companies. This can give global food producers a large advantage in addition to advertising. Thus, it is becoming more difficult for small local producers and distributors to compete with the standards, technologies, and consumer influence held by Big Food.

---

<sup>47</sup> Hawkes, Corinna. “Uneven dietary development...” p. 14

<sup>48</sup> *Globalization of food systems in developing countries: impact on food security and nutrition*. FAO. p. 13.

<sup>49</sup> *The Profit Behind Your Plate: Critical Issues in the Processed Food Industry*. Amsterdam: SOMO – Centre for Research on Multinational Corporations, 2006. p. 40. Accessed April 25, 2016. ISBN: 90-71284-11-5

<sup>50</sup> Cristoph Spennemann, interview by Elizabeth Black, *UNCTAD*, April 21, 2016.

### **Part III: The spread of processed/nutrient-poor food: why this is a problem**

This section discusses the spread of processed, nutrient-poor food, or the “Western diet”, and the effects this has on the nutrition of populations in developing countries. First, I will address how the global food system and the dietary patterns of populations have evolved to comprise the current food system and diet. Essentially, these changes encompass part of what is called the global “nutrition transition”. Along with decreased physical activity, new technologies, and jobs that promote a more sedentary lifestyle, changes in diet – including what we consume and how often – majorly affect global health. The global nutrition transition – specifically changes concerning diet – is an important concept to know because it allows us to better understand the current state of global food security and nutrition. Second, I will explore current diet patterns and how this affects the global food supply and food systems in developing countries. More specifically, I will focus on the shift toward refined carbohydrates and added sugars; the increasing intake of vegetable oils; increasing consumption of meat; the increase in packaged, highly processed foods; and inadequate food and vegetable intake. Additionally, it is important to understand how large global food producers, like TNCs, accelerate and encourage these changes.

Third, and perhaps most importantly, I will focus on how such changes exacerbate malnutrition, as access to healthy food decreases while that of processed food increases. The primary focus of this section will be on the rising double burden of malnutrition: undernutrition and overnutrition. Additionally, I will look at how malnutrition contributes to the growing prevalence of NCDs in developing countries, which is a large part of the nutrition transition. However, this exploration of nutrition and health is by no means a comprehensive overview;

there is little focus on physical or mental health, as well as many other external factors that influence the nutrition and health of populations.

### *Evolution of the Global Food System*

The changes in the global food system, along with changes in global diets, did not happen simply or all at once. The emergence of the ‘global’ food system, rather than a focus on state food systems is complex and is influenced by hundreds of years of gradual shifts in government investment, trade, intervention in markets, infrastructure, changes in production systems, international relations, urbanization, and culture. One of the major shifts in production systems has been making calories from major agricultural crops like corn, rice, and wheat cheaply available to both high-income and low-middle income countries.<sup>51</sup> Additionally, this change led to the manufacturing of cheap livestock feed and low input costs for processed food. As a result, incentives for this type of production grew and became reinforced by technology improvements through globalized production and transportation, mass media and food marketing, movement of capital and services, and the supermarket and fast food revolutions<sup>52</sup>. The old food system focused on local production by local producers for local markets. There was little to no processing and populations generally knew where their food came from.<sup>53</sup> Now the food system involves multiple international actors whose goals are to maximize efficiency, reduce costs, increase production, and attract consumers. According to Anand *et al.*, the control of the farm-to-

---

<sup>51</sup> Anand, Sonia S. Hawkes, Corinna. De Souza, Russell J., Mente, Andrew. Dehghan, Mahshid. Nugent, Rachel. Zulyniak, Michael A. “Food Consumption and its Impact on Cardiovascular Disease: Importance of Solutions Focused on the Globalized Food System,” *Journal of the American College of Cardiology* 66, no. 14 (2015): 1592. Accessed April 27, 2016.

<sup>52</sup> Popkin, Barry. et al. “Global Nutrition Transition and the pandemic of obesity in developing countries.” p. 9.

<sup>53</sup> Anand, Sonia S. *et al.* “Food Consumption and Its Impact on Cardiovascular Disease...” p. 1591.

fork food supply by these actors is “more the rule than the exception.”<sup>54</sup> There are three main catalysts that influenced this change in the food system: (1) “the globalized distribution of technology related to food production, transportation, and marketing” (2) the spread and influence of mass media and information (3) the flow of capital and services.<sup>55</sup> It is very difficult to pinpoint and understand all of the factors that caused changes in the food system, especially within the confines of this paper. Thus, this analysis is not comprehensive but generally shows how changes in the approach to production systems have paved the way for changes in our diet.

### *Evolution to Current Diets*

Traditional diets, particularly in developing countries, used to be rich in whole coarse grains like millet and barley, with high sources of dietary fiber and plants, including vegetables and fruits. The modern diet has moved to include refined grains/carbohydrates, animal products, unhealthy fats, hydrogenated oils, and added sugar and salt. With the incorporation of such components into our diet, there is a marked decrease in whole grain, fruit, vegetable, legume, fish and nut consumption<sup>56</sup>. Fundamentally, our diet is becoming sweeter and more energy dense<sup>57</sup>. There are two important phenomenons that describe these dietary changes: dietary adaptation and dietary convergence. Dietary adaptation consists of changes in the diet to include more processed, refined, and branded foods due to lifestyle changes such as availability of new foods, increase in new food retail outlets, time demands, more exposure to food advertising and

---

<sup>54</sup> Anand, Sonia S. *et al.* “Food Consumption and Its Impact on Cardiovascular Disease...” p. 1592.

<sup>55</sup> Popkin, Barry M. *et al.* “Global Nutrition Transition and the pandemic of obesity in developing countries.” p. 9.

<sup>56</sup> *Ibid.*

<sup>57</sup> Popkin, Barry M. “Global nutrition dynamics: the world is shifting rapidly toward a diet linked with noncommunicable diseases,” *The American Journal of Clinical Nutrition* 84 (2006): 293. Accessed April 28, 2016.

marketing, and cultural influence.<sup>58</sup> Dietary convergence means that diets are growing more similar to one another worldwide. This is because there is greater dependence on grains such as wheat and rice and greater consumption of meat, edible oils, sugar, and salt, with a lower intake of fiber.<sup>59</sup> While there is growing dietary adaptation and convergence around the world, it is important to understand that dietary patterns differ in various countries and regions. The broad outlook that this paper provides on global dietary patterns cannot do justice to all of the unique facets of food systems and diets in developing countries. While there is still a significant lack of research on the nature of global diets, there are several universal elements that have occurred as a result of the nutrition transition.

Overall, there are five major components that characterize the current dietary patterns and global food supply: (1) shift to refined grains/carbohydrates and added sugar (2) increased intake of vegetable fats through edible oils (3) increasing global consumption of meat (4) increase in packaged and ultra-processed foods and (5) inadequate fruit and vegetable intake. The price levels of production and distribution, the price per calorie of food, and consumer preference affected by mass media and local culture all affect such shifts in dietary pattern and food supply. Often times, populations choose foods typical of the modern diet – refined, processed, sugary, and high in fat – because they are cheaper. Usually they are cheaper because they have a longer shelf life, are easier to store and transport, and have lower cost of inputs.<sup>60</sup> When families lack the income to buy food and are unable to grow it themselves, they usually choose the “cheapest

---

<sup>58</sup> *Globalization of food systems in developing countries: impact on food security and nutrition*. FAO. p. 11.

<sup>59</sup> “Food security in an urban future,” Food and Agriculture Organization of the United Nations, *Fao.org/newsroom*, last modified 2004. [http://www.fao.org/newsroom/en/focus/2004/51786/article\\_51797en.html](http://www.fao.org/newsroom/en/focus/2004/51786/article_51797en.html)

<sup>60</sup> “Unhealthy Developing World Food Markets,” *Rockefeller Foundation*. p. 5. Last modified May 2013. <https://www.rockefellerfoundation.org/app/uploads/Unhealthy-Developing-World-Food-Markets.pdf>

cost per calorie” from the available options.<sup>61</sup> Simultaneously, if the prices of fatty, sugary, and processed foods are cheap relative to foods that are healthy such as vegetables or legumes, then healthy food becomes less attractive because it is associated with higher expense.<sup>62</sup> This process soon becomes cyclical: unhealthy processed foods are produced cheaply; consumers choose to buy them because they are more affordable; demand by consumers increases; producers produce and distribute more unhealthy food. As a result, dietary patterns and the global food market continually reinforce one another.

All five components mentioned above are crucial indicators of the changes in food systems and diet. The shift toward refined carbohydrates and added sugars is seen in staples such as white rice, refined flour, and cornstarch with low fiber content. The cheap production of processed vegetable oils has led to an increase in soybean, palm, and rapeseed/canola oils and decline in the consumption of animal fat, such as butter and lard.<sup>63</sup> In fact, individual intake of vegetable oils in the developing world increased between three and six times between 1985 and 2010.<sup>64</sup> Meat production and consumption is also steadily increasing: production has increased by 20% in the past decade and global annual consumption per capita will increase by 1.6 kg to 35.5 kg by 2024<sup>65</sup>. Increase in meat consumption in developing countries is largely associated with urbanization (119). The increase in the production and consumption of processed foods is one of the most significant shifts in the global diet. For example, in Mexico, 58% of calories that

---

<sup>61</sup> Popkin, Barry M. *et al.* “Global Nutrition Transition and the pandemic of obesity in developing countries.” p. 10.

<sup>62</sup> *Ibid.*

<sup>63</sup> Anand, Sonia S. *et al.* “Food Consumption and Its Impact on Cardiovascular Disease...” p. 1592.

<sup>64</sup> Popkin, Barry M. *et al.* “Global Nutrition Transition and the pandemic of obesity in developing countries.” p. 8.

<sup>65</sup> *OECD-FAO Agricultural Outlook 2015-2024*. Paris: OECD/Food and Agricultural Organization of the United Nations, 2015, p. 119. Accessed April 28, 2016. [http://www.oecd-ilibrary.org/agriculture-and-food/oecd-fao-agricultural-outlook-2015\\_agr\\_outlook-2015-en](http://www.oecd-ilibrary.org/agriculture-and-food/oecd-fao-agricultural-outlook-2015_agr_outlook-2015-en)

the population consumes come from packaged food and beverages.<sup>66</sup> According to the ETC group, an organization dedicated to addressing socioeconomic issues that have impacts on the world's poorest people, the global packaged foods market was worth approximately \$1.37 trillion in 2009. Additionally, the top ten food and beverage corporations control more than 28% of the global market for packaged food products, with combined sales reaching close to \$400 million.<sup>67</sup> Overall, the growth of packaged foods is five times higher in developing countries compared to developed countries<sup>68</sup>. The intense growth and consumption of packaged foods in developing countries presents one of the largest barriers to proper nutrition in low to middle income countries. Lastly, many populations do not consume enough fruits and vegetables. In low to middle income countries, 77.6% of men and 78.4% of women consume less than the minimum recommended daily serving.<sup>69</sup> There are many reasons for this lack of adequate consumption but the main idea is that low consumption restricts proper intake of nutrients. All of these components have significant effects on the nutrition of populations.

As mentioned in previous sections, global food producers also play a large role in the way dietary patterns have changed over the years. In fact, David Stucker and Marion Nestle argue that global producers are “the main reason why the “nutrition transition” from traditional, simple diets to highly processed foods is accelerating.”<sup>70</sup> Through increased trade liberalization, foreign direct investment, and advertising, the presence of Big Food in developing countries,

---

<sup>66</sup> Anand, Sonia S. *et al.* “Food Consumption and Its Impact on Cardiovascular Disease...” p. 1595.

<sup>67</sup> “Who Will Control the Green Economy?” *ETC Group*. December 2011. p. 37. Accessed April 12, 2016. [http://www.etcgroup.org/sites/www.etcgroup.org/files/publication/pdf\\_file/ETC\\_wwctge\\_4web\\_Dec2011.pdf](http://www.etcgroup.org/sites/www.etcgroup.org/files/publication/pdf_file/ETC_wwctge_4web_Dec2011.pdf)

<sup>68</sup> “Unhealthy Developing World Food Markets,” *Rockefeller Foundation*. p. 5.

<sup>69</sup> Anand, Sonia S. *et al.* “Food Consumption and Its Impact on Cardiovascular Disease...” p. 1595.

<sup>70</sup> Nestle, Marion, and Stuckler, David. “Big Food, Food Systems, and Global Health,” *PLoS Medicine* 9, no. 6 (2012): 1-3. Accessed April 17, 2016. Doi: 10.1371/journal.pmed.1001242



specifically through processed foods, has increased exponentially. Additionally, heavy subsidies, commodity incentives, and high margins have caused TNCs to focus primarily on unhealthy food production because it is the most profitable<sup>71</sup>. In fact, three-fourths of world food sales account for processed foods, where the largest manufacturers control over one third of the global market.<sup>72</sup> While many global producers argue that nominal processing of foods can improve nutritional quality, “most processing is done so to increase palatability, shelf-life, and transportability” – all of which reduce nutritional quality. Additionally, through the spread of these “unhealthy commodities”, it’s increasingly easy to overeat. The Rockefeller Foundation argues that this is because of the “intense palatability, omnipresence, and sophisticated marketing” of ultra-processed products.<sup>73</sup> Overall, there seems to be a recurring theme related to large global food producers: “food systems are not driven to deliver optimal human diets but to maximize profits.” In other words, proper nutrition and health are not prioritized; they are increasingly left behind as companies race to the bottom to find top profit. In this next section, I explore the tenets of malnutrition and how the global food system and its corresponding actors have failed to provide adequate nutrition for populations in many developing countries.

#### *How these changes exacerbate malnutrition*

According to author E.M. Young, “the most blatant failure of the current [food] system is that it fails to feed approximately one billion people adequately each year yet manages to overfeed approximately 800 million people worldwide.”<sup>74</sup> According to the most recent data

---

<sup>71</sup> “Unhealthy Developing World Food Markets,” *Rockefeller Foundation*. p. 7.

<sup>72</sup> *Ibid.*

<sup>73</sup> “Unhealthy Developing World Food Markets,” *Rockefeller Foundation*. p. 5.

<sup>74</sup> Young, E.M. “Deadly diets: geographical reflections on the global food system.” *Geography* 95, no. 2 (2010): p. 60. Accessed April 14, 2016. <http://www.jstor.org.flagship.luc.edu/stable/pdf/20789350.pdf>

presented in the 2016 Global Food Policy Report, 2 billion people have micronutrient deficiencies and 795 million people are undernourished. In contrast, more than 2 billion people are overweight or obese.<sup>75</sup> Overall, malnutrition affects one in three people on the planet.<sup>76</sup> It is important to note that malnutrition encompasses both undernutrition and overnutrition. Undernutrition is defined as insufficient food intake, and includes stunting, wasting, and micronutrient deficiency<sup>77</sup>. Overnutrition is the consumption of too many calories, often those that are poor quality. There are various direct and indirect causes of malnutrition including: poverty, food insecurity, armed conflict, natural disasters, lack of education, poor infant and children feeding practices, lack of access to adequate diets, and the marketing and availability of unhealthy food and drinks.<sup>78</sup> For the purposes of this paper, I focus on malnutrition – specifically overnutrition – as the result of spread of processed, nutrient-poor food.

As discussed previously in the paper, the presence and practices of Big Food companies can severely affect the food security of populations in developing countries. Inability to compete against big companies and find/pay for healthy food can affect the food security of local producers/farmers, their families, and populations. Most times, when food security is compromised, nutrition also becomes compromised. It's quite simple: total lack of food or lack of nutritious food leads to malnutrition because individuals generally aren't getting enough to eat and/or they are not getting proper nutrients from the food they are eating. Thus, the spread of

---

<sup>75</sup> International Food Policy Research Institute (IFPRI). *2016 Global Food Policy Report*. Washington, D.C.: International Food Policy Research Institute (IFPRI), 2016, p. 10. <http://dx.doi.org/10.2499/9780896295827>

<sup>76</sup> *2015 Global Nutrition Report: Actions and Accountability to Advance Nutrition & Sustainable Development*. Washington D.C.: International Food Policy Research Institute, 2015. Accessed April 10, 2016. <http://ebrary.ifpri.org/utils/getfile/collection/p15738coll2/id/129443/file/129654.pdf>

<sup>77</sup> “Undernutrition” *UNICEF*. <http://www.unicef.org/progressforchildren/2006n4/undernutritiondefinition.html>

<sup>78</sup> UNICEF. “Nutrition: Faces of Malnutrition.” Last modified December 24, 2015. [http://www.unicef.org/nutrition/index\\_faces-of-malnutrition.html](http://www.unicef.org/nutrition/index_faces-of-malnutrition.html)

processed, nutrient-poor food by Big Food companies also exacerbates malnutrition, specifically overnutrition. Because unhealthy foods – high in fat, sugar, salt, and chemical additives – are becoming more available and affordable, many populations choose them over traditional food items that are more expensive and less “modern.”<sup>79</sup> Essentially, the marketing, desirability and availability of these items “have encouraged the urban poor to consume lower-quality foods that are obesogenic.”<sup>80</sup> However, this comes at a price.

Higher consumption of energy-dense, nutrient-poor foods increases the prevalence of obesity and other non-communicable diseases, like diabetes and cardiovascular disease. In developing countries, this is a relatively new phenomenon: in the past, undernutrition and communicable disease were among the top global health concerns. While this is still the case in many countries, overnutrition and non-communicable disease is quickly becoming a greater global health concern. Currently, three-fourths of deaths from non-communicable disease, or 28 million, occur in low and middle-income developing countries, where the burden of NCDs is growing at alarming speeds.<sup>81</sup> In 2013 alone, more than 8 million people died from NCDs before their sixtieth birthday.<sup>82</sup> The rise of unhealthy diets as a result of globalization, the practices of global food producers, and the spread of processed food are directly correlated with malnutrition and the rise of non-communicable diseases. According to the World Health Organization, such diets cause “raised blood pressure, increased blood glucose, elevated blood lipids, and obesity”,

---

<sup>79</sup> “Unhealthy Developing World Food Markets,” *Rockefeller Foundation*. p. 3.

<sup>80</sup> Popkin, Barry M. *et al.* “Global Nutrition Transition and the pandemic of obesity in developing countries.” p. 10.

<sup>81</sup> WHO. “Non-communicable diseases.” Last modified 2016. <http://www.who.int/mediacentre/factsheets/fs355/en/>

<sup>82</sup> Daniels, Mitchell. Donilon, Thomas. Bollyky, Thomas. Independent Task Force Report No. 72: *The Emerging Global Health Crisis: Non-Communicable Diseases in Low-and Middle-Income Countries*. New York: Council on Foreign Relations, 2014, p.3. Accessed April 20, 2016. <http://www.cfr.org/diseases-noncommunicable/emerging-global-health-crisis/p33883>

all of which are risk factors and cause for cardiovascular disease and diabetes.<sup>83</sup> Malnutrition deserves significant attention because it impairs people's mental and physical development, increases their risk for acute and chronic disease, hampers their ability to get an education, and undermines labor productivity.<sup>84</sup> The corresponding costs of non-communicable diseases are also extremely high.

According to a task force report on non-communicable disease by the Council on Foreign Relations, NCDs create negative side effects at three different levels: household, national, and global. At the household level, there is less income, potential high healthcare costs, and a high probability of impoverishment. At the national level, there is lower economic productivity and competitiveness in the global market; higher health and welfare costs; and “a potential missed opportunity for the demographic dividend that lifted the fortunes of many higher-income countries.”<sup>85</sup> Lastly, at the global level, the financial cost of NCDs is exorbitant. In fact, a report by the World Economic Forum and Harvard School of Public Health stated that processed, nutrient-poor foods are one of the main reasons why global NCD costs will reach \$30 trillion over the next 20 years.<sup>86</sup> The fact that unhealthy diets can trigger all of these effects is a rather alarming realization. However, Ms. Stineke Oenema of the UN Standing Committee of Nutrition, argues that while diet is central to many of these problems, it is also central to their

---

<sup>83</sup> Ibid.

<sup>84</sup> *2015 Global Nutrition Report: Actions and Accountability to Advance Nutrition & Sustainable Development*. p. 663-664

<sup>85</sup> Fan, Shenggen. *2016 Global Food Policy Report: Reshaping the Global Food System for Sustainable Development*. Washington, D.C.: International Food Policy Research Institute (IFPRI), 2016, p. 10. <http://dx.doi.org/10.2499/9780896295827>

<sup>86</sup> Daniels et al. “*The Emerging Global Health Crisis...*” p. 4.

<sup>87</sup> “Unhealthy Developing World Food Markets,” *Rockefeller Foundation*. p. 4.

solutions.<sup>88</sup> This is an extremely important concept to understand because it reiterates how diet is not only related to disease and health, but also to poverty, economic productivity, successful market competition, and the overall success of a country. Diet can do as much good as it can do harm. Overall, there is a strong need to build a global food system that “makes it easier to consume safe, nutritious, diverse diets in appropriate amounts, while limiting processed foods of limited nutritional value” so that communities all over the world have the ability to thrive without the burden of malnutrition and NCDs.<sup>89</sup> Malnutrition and related NCDs as a result of unhealthy diets – a preventable risk factor – can no longer be accepted as a global norm.

### **Conclusion**

Throughout this research, I have explored the complex but interrelated ideas of globalization, urbanization, foreign direct investment, transnational food corporations, food security, and nutrition. Specifically, my goal was twofold for this research: to understand how the presence and practices of transnational food corporations affect food security, food sovereignty, and nutrition, and to understand how the globalization of Westernized diets, through the spread of food that is processed and nutrient-poor, has affected the nutrition of populations in low-income/developing countries. I focused on the detrimental rather than the beneficial forces of globalization and TNCs in an attempt to draw attention to the marginalization of populations at the hands of large global forces and actors and flaws within the global food system. My purpose was not to condemn globalization and TNCs but to provide the basis for a constructive criticism of their disadvantageous effects on populations in developing countries.

---

<sup>88</sup> Stineke Oenema, interview/conversation with Elizabeth Black, *Skype*, May 2, 2016.

<sup>89</sup> 2016 *Global Food Policy Report*. p. 10

I have found that there is a significant un-level playing field between low- and high-income countries in regards to control of food systems. While there is consistent research showing that globalization, free trade, and competition in the global market can have profound benefits for governments, companies, communities, and families, I have found equally consistent research on the detriments that such mechanisms can impose on those who are more vulnerable. For instance, I have found that urbanization has led more people to cede control over the type and quality of food they consume as they increasingly eat outside of the home. Additionally, urban culture influenced by modern trends and wealth, along with the greater prevalence of global food products, like fast food and packaged goods, has led to dietary adaption of foods high in fat, oil, sugar, and salt. Foreign direct investment has made processed food more available and affordable, influencing consumer preference toward unhealthy food and giving greater control of domestic markets to foreign entities.

Such foreign entities enjoy unparalleled power, immense trade benefits, government protection, technologies, and other resources that allow them to become virtually untouchable in global markets. These large food producers and distributors, nicknamed Big Food, use these benefits to out-compete domestic producers and dominate global and local food systems. I have found that small farmers, producers, and distributors in developing countries often cannot compete with the high standards and sophisticated marketing practices of Big Food and are quickly forced to leave the market or sell their assets to compensate. Thus, countries start to lose their food security and sovereignty, and begin to depend primarily on food imports from other countries. In addition to lowering the prices of their products, TNCs spend mass amounts of money on advertising and marketing, swaying consumer choice and preference toward more colorful, “modern” food. For many consumers who live on low incomes, the cheap, unhealthy

food marketed by TNCs becomes the first choice and consumption of healthy food declines. As a result, malnutrition increases, as well as the prevalence of non-communicable diseases. The harmful effects of malnutrition, as a result of unhealthy diets, are extensive at the household, community, and national level in developing countries: increased prevalence of disease, poverty, lower economic productivity, lower income, and higher costs. I have come to the conclusion that certain areas of the global food system are broken – benefitting the powerful and wealthy and exploiting the poor. Since when is it the norm to import millions of tons of grain when small farmers could produce it right down the road? Why is it that unhealthy food is less expensive than healthy food and why do families have to choose between their health and saving money? These questions highlight several of the inequalities produced by complex forces within the global food system, and it is important that the global community does not ignore their presence.

However, while it is easy to point fingers, it is more difficult to holistically right the wrongs of our global food system. While forces of globalization and the private sector may be to blame for many of these issues, they must also be the solution. I have found, through my research and interviews with various experts, that the increased flow of ideas, technologies, partnerships, trade, and competition fostered by globalization and Big Food are all essential to the growth and development of developing countries. Moreover, they “create improvements in the quality of living that no country would willingly forego.”<sup>90</sup> Such benefits must outweigh the detriments if we are to move forward in successfully combating food security and nutrition. Additionally, all four of my primary interviewees, Mr. Diwakar Dixit, Ms. Siva Jamal Aziz, Mr. Cristoph Spennemann, and Ms. Stineke Oenema, stated the importance of responsible collaboration with the private sector, including large global food producers. In fact, Ms. Siva

---

<sup>90</sup> Popkin et al. “Global Nutrition Transition and the pandemic of obesity...” p. 16.

Jamal Aziz believes that the only way to properly combat food insecurity and nutrition is through a constant, yet socially responsible presence of the private sector in developing countries<sup>91</sup>.

Exclusion of the private sector is out of the question if we want to comprehensively fix our food system. The benefits of higher quality, availability, and affordability of food are invaluable and can be made to create food systems that are healthier and more sustainable.

Overall, there needs to be greater dialogue on nutrition; greater accountability and corporate social responsibility of TNCs; better support, protection, and resources for small farmers and producers in developing countries; increased funding in agriculture by the government; and an international policy framework that draws standards on competition and trade policy. As Ms. Oenema so eloquently articulates, “We need to look at the problem from an integrated view; we should never single out a partial problem and then single out a partial solution.”<sup>92</sup> I hope that through addressing several problems within the global food system, this research contributes to the conversation about the need for a better global food system and the need to improve and hold accountable the effects of globalization, the practices of transnational food corporations, and prevent the spread of unhealthy foods and diets. Global health, sustainability, and development begin with what we put into our bodies, and we must be stewards of what we hope to see in our surround environments.

---

<sup>91</sup> Siva Jamal Aziz, interview by Elizabeth Black, *Committee on Food Security, World Food Programme Geneva*, April 21, 2016.

<sup>92</sup> Stineke Oenema, interview/conversation with Elizabeth Black, *Skype*, May 2, 2016.



## Bibliography

- 2015 Global Nutrition Report: Actions and Accountability to Advance Nutrition & Sustainable Development*. Washington D.C.: International Food Policy Research Institute, 2015. Accessed April 10, 2016. <http://ebrary.ifpri.org/utils/getfile/collection/p15738coll2/id/129443/filename/129654.pdf>
- Anand, Sonia S. Hawkes, Corinna. De Souza, Russell J., Mente, Andrew. Dehghan, Mahshid. Nugent, Rachel. Zulyniak, Michael A. “Food Consumption and its Impact on Cardiovascular Disease: Importance of Solutions Focused on the Globalized Food System,” *Journal of the American College of Cardiology* 66, no. 14 (2015): 1590- 1614. Accessed April 27, 2016.
- “Daniels, Mitchell. Donilon, Thomas. Bollyky, Thomas. Independent Task Force Report No. 72: *The Emerging Global Health Crisis: Non-Communicable Diseases in Low-and Middle-Income Countries*. New York: Council on Foreign Relations, 2014. Accessed April 20, 2016. <http://www.cfr.org/diseases-noncommunicable/emerging-global-health-crisis/p33883>
- Dixit, Diwakar. Interview by Elizabeth Black, *World Trade Organization*, April 27, 2016.
- Food security in an urban future,” Food and Agriculture Organization of the United Nations, *Fao.org/newsroom*, last modified 2004. [http://www.fao.org/newsroom/en/focus/2004/51786/article\\_51797en.html](http://www.fao.org/newsroom/en/focus/2004/51786/article_51797en.html)
- Future of Food: The Oxford Martin Programme on the Future of Food. “What is the food system?” Last modified, 2016. <http://www.futureoffood.ox.ac.uk/what-food-system>
- Globalization of food systems in developing countries: impact on food security and nutrition*. Rome: Food and Agriculture Organization of the United Nations, 2004. Accessed April 13, 2016. <http://www.fao.org/3/a-y5736e.pdf>
- 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): 1-18. Accessed April 20, 2016. Doi: 10.1186/1744-8603-2-4
- Henderson, Dennis. Handy, Charles. Neff, Steven A. “The Processed Food Sector in the Global Perspective” in *Globalization of the Processed Foods Industry*. USDA, 1997. Accessed April 5, 2016. <http://www.ers.usda.gov/media/938639/aer742a.pdf>
- Hess, Alexander E.M. “Companies that control the world’s food.” *USA Today*. Last modified August 16, 2014. <http://www.usatoday.com/story/money/business/2014/08/16/companies-that-control-the-worlds-food/14056133/>

- IFAD. “Food prices: smallholder farmers can be part of the solution” Last modified 2016.  
[https://www.ifad.org/what/operating\\_model/tags/1963528](https://www.ifad.org/what/operating_model/tags/1963528)
- International Food Policy Research Institute (IFPRI). *2016 Global Food Policy Report*. Washington, D.C.: International Food Policy Research Institute (IFPRI), 2016.  
<http://dx.doi.org/10.2499/9780896295827>
- Jamal Aziz, Siva. Interview by Elizabeth Black, *Committee on Food Security, World Food Programme Geneva*, April 21, 2016.
- Matuschke, Ira. “Rapid urbanization and food security: using food density maps to identify food security hotspots.” *Food and Agriculture Organization of the United Nations*. 2009.  
[http://www.fao.org/fileadmin/user\\_upload/esag/docs/RapidUrbanizationFoodSecurity.pdf](http://www.fao.org/fileadmin/user_upload/esag/docs/RapidUrbanizationFoodSecurity.pdf)
- Nestle, Marion, and Stuckler, David. “Big Food, Food Systems, and Global Health,” *PLoS Medicine* 9, no. 6 (2012): 1-3. Accessed April 17, 2016. Doi: 10.1371/journal.pmed.1001242
- Nestle, Marion. *Food Politics*. California: University of California Press, 2007.
- OECD-FAO Agricultural Outlook 2015-2024*. Paris: OECD/Food and Agricultural Organization of the United Nations, 2015. Accessed April 28, 2016. [http://www.oecd-ilibrary.org/agriculture-and-food/oecd-fao-agricultural-outlook-2015\\_agr\\_outlook-2015-en](http://www.oecd-ilibrary.org/agriculture-and-food/oecd-fao-agricultural-outlook-2015_agr_outlook-2015-en)
- Oenema, Stineke. Interview/conversation with Elizabeth Black, *Skype*, May 2, 2016.
- Popkin, Barry M. “Global nutrition dynamics: the world is shifting rapidly toward a diet linked with noncommunicable diseases,” *The American Journal of Clinical Nutrition* 84 (2006): 289-298. Accessed April 28, 2016.
- Popkin, Barry M. Adair, Linda S. Ng, Shu Wen. “Global Nutrition Transition and the pandemic of obesity in developing countries.” *Nutrition Reviews* 70 no. 1 (2012): 3-21. Accessed April 26, 2016. Doi: 10.1111/j.1753-4887.2011.00456.x
- Ramanujam, Nandini, Caivano, Nicholas, Semahagn, Abebe. “From Justiciability to Justice: Realizing the Human Right to Food,” *McGill International Journal of Sustainable Development Law and Policy* 11, no. 1 (2015): 1-39. Accessed April 17, 2016.  
<file:///Users/ElizabethBlack/Downloads/11McGillIntlJSustDevLPoly.pdf>
- Spennemann, Cristoph. Interview by Elizabeth Black, *United Nations Commission on Trade and Development*, April 21, 2016.
- The Profit Behind Your Plate: Critical Issues in the Processed Food Industry*. Amsterdam: SOMO – Centre for Research on Multinational Corporations, 2006. Accessed April 25, 2016. ISBN: 90-71284-11-5

“The State of Food Insecurity in the World.” Rome: *Food and Agriculture Organization of the United Nations*, 2015. Accessed April 5, 2016. <http://www.fao.org/3/a4ef2d16-70a7-460a-a9ac-2a65a533269a/i4646e.pdf>

“Undernutrition” UNICEF.  
<http://www.unicef.org/progressforchildren/2006n4/undernutritiondefinition.html>

“Unhealthy Developing World Food Markets,” *Rockefeller Foundation*. Last modified May 2013. <https://www.rockefellerfoundation.org/app/uploads/Unhealthy-Developing-World-Food-Markets.pdf>

*UN High Level Task Force on the Global Food Security Crisis*. United Nations, 2010. Print.

UNICEF. “Nutrition: Faces of Malnutrition.” Last modified December 24, 2015.  
[http://www.unicef.org/nutrition/index\\_faces-of-malnutrition.html](http://www.unicef.org/nutrition/index_faces-of-malnutrition.html)

Via Campesina. “Food Sovereignty and Trade: Declaration of Nyéléni.” February 27, 2007.  
<http://viacampesina.org/en/index.php/main-issues-mainmenu-27/food-sovereignty-and-trade-mainmenu-38/262-declaration-of-ny>

“World’s urban population increasingly urban with more than half living in urban areas.”  
*Un.org*. Last modified July 10, 2014.  
<http://www.un.org/en/development/desa/news/population/world-urbanization-prospects-2014.html>

WHO. “Food Security.” Last modified 2016. <http://www.who.int/trade/glossary/story028/en/>

WHO. “Globalization.” Last modified 2016. <http://www.who.int/trade/glossary/story043/en/>

WHO. “Non-communicable diseases.” Last modified 2016.  
<http://www.who.int/mediacentre/factsheets/fs355/en/>

“Who Will Control the Green Economy?” *ETC Group*. December 2011. Accessed April 12, 2016.  
[http://www.etcgroup.org/sites/www.etcgroup.org/files/publication/pdf\\_file/ETC\\_wctge\\_4web\\_Dec2011.pdf](http://www.etcgroup.org/sites/www.etcgroup.org/files/publication/pdf_file/ETC_wctge_4web_Dec2011.pdf)

Young, E.M. “Deadly diets: geographical reflections on the global food system.” *Geography* 95, no. 2 (2010): 60-69. Accessed April 14, 2016.  
<http://www.jstor.org.flagship.luc.edu/stable/pdf/20789350.pdf>

Zeigler, Jean. Golay, Christophe. Mahon, Claire. Way, Sally-Anne. *The Fight for the Right to Food*. United Kingdom: Palgrave Macmillan, 2011.