

## CHAPTER 1

### GLOBAL FOOD SUPPLY ACTORS AND METHODS OF MARKET INTEGRATION

The world of modern global agricultural practices consists of two contrasting manifestations. On the one hand technology and agriculture have bonded to create hyper productivity, create wealth and jobs, increase trade and development as well as investment in developing countries. On the other hand most of the world's poor are dependent to some degree on agriculture or agriculture related endeavors. This population may benefit little or not at all from global trade and investment and may suffer the negative effects of trade liberalization. The drivers of social inequality in the agriculture sector are complex. While agrarian communities make the switch from agriculture to industrial and/or information based economies the disparities between urban populations and rural people's incomes are widening. This downward spiral of rural communities has become one of the major push factors, forcing migration to cities and other countries in search of work and opportunities for a better life. Poverty is an excellent catalyst for exploitation while increasing the availability of impoverished people shows steady increase in exploitation. Alternative market strategies may offer some insights into the possibilities of a fairer global trading protocol, lessening these detrimental effects.

As a report to the Agribusiness Accountability Initiative conference confers,

<sup>1</sup>“The lack of knowledge and understanding about the major transformations taking place in how we grow, process, and distribute food is striking, particularly in terms of the larger moral questions arising from this transformation. The major dilemma caused by the restructuring of the food system is the conflict between a government's perceived need to feed all of its citizens and the chief mission of a corporation – to make a profit.”

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<sup>1</sup> William Heffernan and Mary Hendrickson, *The Global Food System: A Research Agenda*, (report to the Agribusiness Accountability Initiative Conference on Corporate Power in the Global Food System High Leigh Conference Centre, Hertfordshire, United Kingdom), pp. 1-19.

Moreover as William Heffernan, Mary Hendrickson and Robert Gronski state:

<sup>2</sup>“The emerging global food system has the power in many cases, through sheer volume, to challenge the national agricultural policies of the state.<sup>3</sup> In the case of food supply, this may prioritize corporate profits over the health and well being of citizens”.

At the very heart of the debate on globalization are discussions of food. By examining the ways we "feed ourselves" we also examine methods of global dominance. Waves of mergers and acquisitions have left the global food supply chain, from the farm to the grocer's shelf, in the hands of fewer and fewer trans-national corporations. <sup>4</sup>Multinational food giants like Cargill, Monsanto, ADM, Nestle' and Wal-Mart, strive to dominate and control global food supply through vertical and horizontal integration and through intellectual property rights rules within the <sup>5</sup>World Trade Organization's Trade-Related Aspects of Intellectual Property Rights (TRIPS) protocol, look to control plant species and even patent indigenous seed varieties.

<sup>6</sup>Global food supply chains, refers to the methods actors, transportation and communication strategies, as well as the corporate interactions and business practices and social, professional, and technological linkages, spanning the globe. These interactions form the basis of the global food supply chain, in short, how we feed ourselves. Waves of corporate consolidation, supported by market liberalization, are placing control of global food supply chains in the hands of fewer and fewer

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<sup>2</sup> William Heffernan, Mary Hendrickson and Robert Gronski. *Consolidation in the Food and Agriculture System* (report to the National Farmers Union, Denver, Colorado, 1999), pp. 1-20.

<sup>3</sup> The Global Food System: A Research Agenda. Report to the Agribusiness Accountability Initiative Conference on Corporate Power in the Global Food System High Leigh Conference Centre, Hertfordshire, United Kingdom, <http://foodcircles.missouri.edu/global.pdf>

<sup>4</sup> Amit Thorat. "Rising market Control of Transnational Agribusiness," in International Development Economics Associates (1 December 2003), pp. 1-10, [http://www.networkideas.org/focus/dec2003/Market\\_Control.pdf](http://www.networkideas.org/focus/dec2003/Market_Control.pdf).

<sup>5</sup> The WTO's Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS), negotiated in the 1986-94 Uruguay Round, introduced intellectual property rules into the multilateral trading system for the first time. The agreement also allows for some degree of patent control of seeds which threatens small farmers. For more information on the TRIPS agreement, see [http://www.wto.org/english/thewto\\_e/whatis\\_e/tif\\_e/agrm7\\_e.htm](http://www.wto.org/english/thewto_e/whatis_e/tif_e/agrm7_e.htm)

<sup>6</sup> Philip McMichael, "Global Development and the Corporate Food Regime," Cornell University, pp. 1-24.

transnational corporations. <sup>7</sup>Further, a survey of the World Trade Organization's (WTO), Agreement on Agriculture reveals the challenges currently faced by small scale farmers.

#### A. Research findings

<sup>8</sup>Food production has doubled in the last fifty years, food prices have fallen by half since the 1980s alone, more than enough food is produced every year for the entire population of the planet. Since the so called green revolution agricultural outputs meant a total grain yield increase of 250% over a 35 year period. <sup>9</sup>So why then, in a world of such obvious bounty, concern ourselves with something as mundane as global food supply chains? World-wide around 850 million people are chronically hungry due to extreme levels of poverty. <sup>10</sup> While an additional 2 billion people lack basic food security due to intermittent and varying degrees of poverty<sup>11</sup> these statistics beg the question, how can grain yields, poverty and hunger rise simultaneously? The fact of the matter is that while production is rising the majority of the food is marketed to and consumed in the global north. Small scale producers are being driven out of the marketplace by TNCs demanding higher yields and setting unreachable standards, thus eliminating smaller producers, to make way for the agri-giants geared towards export. Importantly, increased agricultural yields have come at the expense of greater, largely fossil fuel derived, chemical inputs, such as nitrogen fertilizers. Costly farm inputs are used at the expense of the environment and have become shackles for small scale agricultural producers, increasing their debt burden and dependency on large agricultural transnational corporations. <sup>12</sup>Under the guise of food aid, large quantities of grain are being brokered and dumped into developing

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<sup>7</sup> For further examination of the TRIPS protocol and a breakdown of WTO meetings concerning agriculture, see above.

<sup>8</sup> J. Timmons Roberts and Amy Bellone Hite, *The Globalization and Development Reader: Perspectives on Development and Global Change* (USA: Blackwell Publishing, 2007), p. 269.

<sup>9</sup> Sharon Astyk, "How Much Did the Green Revolution Matter? Or Can We Feed the World Without Industrial Agriculture?," *Energy Bulletin* (29 January 2007).

<sup>10</sup> Food and Agriculture Organization (FAO), 2003.

<sup>11</sup> Actionaid International, *Power Hungry: six reasons to regulate global food corporations*, pp. 1-72.

<sup>12</sup> Ibid.

<sup>13</sup> Ibid.

nations which undermines local pricing, making (local) produce artificially costly to (local) consumers and demanding a switch from subsistence production to an export based agricultural model. Export driven agriculture further threatens small scale farmers by demanding the large outputs only possible from factory farms.

“Five companies control 90 percent of the world’s grain trade”<sup>13</sup>

This findings from an actionaid report illustrates the power that global food TNCs have over market forces. Consolidation of agricultural TNCs on a massive scale, starting in the 1980s, has left power in the hands of fewer and fewer companies. TNCs like Monsanto, Cargill, Archur Daniels Midland, Nestlé, Baer and retail giants like Tesco and the U.S. based firm Wal-Mart have integrated to form a food supply system that strives to set process standards, which may exclude small scale farmers, and set farm gate prices, capturing the additional profits for the corporation, control seeds, production, processing and retail sales. Global food TNCs are well positioned to partake in the global food market because of their ability to access the enormous capital needed to off set risks within the volatile food commodities market. To understand how global TNCs dominate trade it is necessary to understand the forms of integration that makes dominance of global food supply possible.

‘For people who want to buy corn, there really isn’t much choice but to buy from us’ said Bob Kohlmeyer, former manager of the Cargill Corporation.

- 60 percent of terminal grain handling facilities is owned by four companies: Cargill, Cenex Harvest States, ADM and General Mills.
  - 82 percent of corn exporting is concentrated in three companies: Cargill, ADM and Zen Noh.
  - Beef packing is dominated by an 81 percent share among four companies: Tyson, ConAgra, Cargill and Farmland Nation.
  - 61 percent of flour milling capacity is owned by four companies: ADM, ConAgra, Cargill and General Mills.
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<sup>14</sup>It is common for economists to raise the red flag when the concentration ratio (CR<sub>4</sub>), the control of a given market by the top four firms, reaches 40 percent. Any number above the 40 percent mark calls into question the ability of the market to remain competitive<sup>15</sup>. A study of concentration ratios, categorized as horizontal and vertical integration, shows that a smaller number of U.S. agricultural producers control more and more of the global food supply chain.

Vertical integration refers to the control by-TNCs-of linkages within the global food supply chain. Chemical giants like Monsanto have become the major players in the seed business. Chemical companies are in turn linked to grain traders and food producers.<sup>16</sup> The same companies buy, ship, mill, feed to live stalk and or process cereals, all of which tend to move across many state boundaries. For example three companies control 90 percent of the world's coffee exports, each with a turnover greater than most African economies.

Horizontal integration, on the other hand, refers to industry control, through ownership or joint venture of, a large percentage of the production process. While processing entails taking raw agricultural goods and capturing value added steps of processing and packaging, vertical integration allows for production as well. As an example,<sup>17</sup>Dole pineapple owns plantations in the Philippines as well as canning factories and because of retail relationships, has the ability to bring the goods to market with many companies throughout the world.

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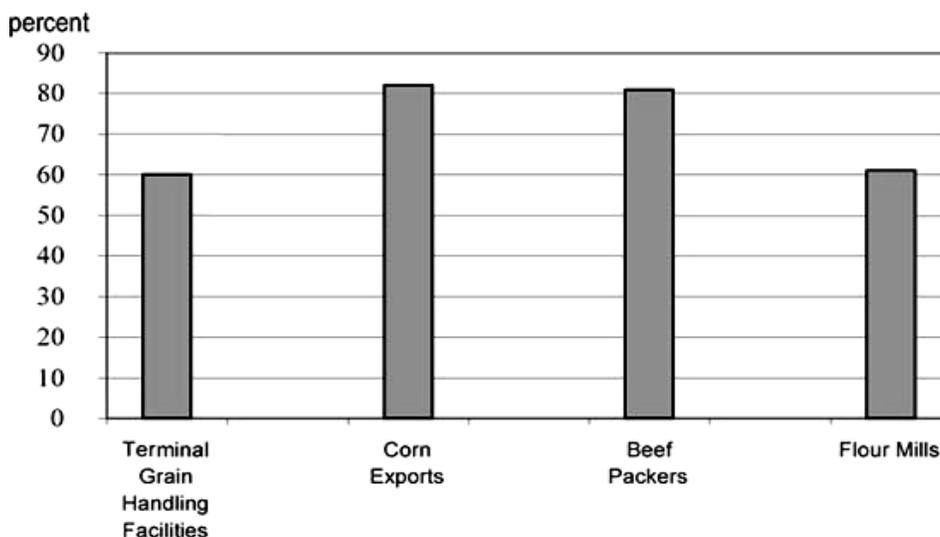
<sup>14</sup> “Heffernan, William & Hendrickson, Mary Date, “Consolidation in the Food and Agriculture System: University of Missouri Department of Rural Sociology and the National Farmers Union”, February 5, 1999, pg 17

<sup>15</sup> FAO, Economic and Social Department, *Trade reform and food security*, Rome 2003, <http://www.fao.org/docrep/005/y4671e/y4671e00.htm>.

<sup>16</sup> FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS ROME, “Trade reform and food security”. Commodity Policy and Projections Service Commodities and Trade Division, 2003

<sup>17</sup> Ibid.

Figure 1.1: Concentration Ratio (CR<sub>4</sub>) Concentration ratios of the top agricultural firms



<sup>18</sup> Note: William Heffernan and Mary Hendrickson, Department of Rural Sociology, University of Missouri (January 2005)

Vertical integration allows food TNCs to set an artificial price as the supply side price is not a market dictate. Because of this buyer-side control companies are free to set market prices through food company relationships, which is a distortion of the free market's ability to set prices. Importantly, agricultural goods are no longer traded between farmers and state agriculture boards or even state to state, but rather through transnational actors within TNCs and their partners and global associates. This factor allows for the market dominance that in turn may lead to exploitation of small scale farmers in the global south.

Many TNCs have linkages in up to 100 different countries; have access to vital market information making futures speculation somewhat less risky. Risk is controlled by buying-up futures markets which in turn allows for long-range price stability.

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<sup>18</sup> Phil Howard, "Consolidation in food and agriculture: implications for farmers and consumers," *CCOF Magazine* 20, no. 4 (Winter 2003-2004): 2-6, reprinted in *Well Being Journal* 13, no. 2 (March-April 2004): 13-21; *Natural Farmer* 2, no.68 (Spring 2006):17-20.

Table 1.1: Concentration Ratio (CR<sub>4</sub>) of the top agricultural firms, 2001

• <b>Beef packers (Tyson, Con Agra, Cargill, Farmland)</b>	<b>81%</b>
• <b>Corn exports ( Cargill-Continental Grain, ADM, Zen Noh)</b>	<b>81%</b>
• <b>Soybean crushing (ADM, Cargill, Bunge, AGP)</b>	<b>80%</b>
• <b>Soybean exports ( Cargill-Continental Grain, ADM, Zen Noh)</b>	<b>65%</b>
• <b>Flour milling (ABM, Con Agra, Cargill, General Mills)</b>	<b>61%</b>
• <b>Terminal grain handling facilities (Cargill, Cenex Harvest States, ADM, General Mills)</b>	<b>60%</b>
• <b>Pork packers (Smithfield, Tyson, Con Agra, Cargill)</b>	<b>59%</b>
• <b>Broilers (Tyson, Gold Kist, Pilgrim's Pride, Con Agra)</b>	<b>50%</b>
• <b>Pork production (Smithfield, premium Standard, Seaboard, Triumph)</b>	<b>46%</b>
• <b>Turkeys (Hormel, Con Agra, Cargill, Pilgrim's Pride)</b>	<b>45%</b>

Source: Phil Howard, "Consolidation in food and agriculture: implications for farmers and consumers",<sup>19</sup>

[A]ctionaid's "Power hungry: six reasons to regulate global food corporations" reports six corporate practices leading to global food trade injustice. The second half of the chapter will rely heavily upon this report to illustrate the control that agricultural TNCs through global consolidation, have over small scale farmers. Agricultural markets are being stitched together for control of the global food supply chain and to control and often exploit farmers, drive down farm gate prices and exclude smaller producers from global markets.

Much of the world's farming is becoming industrialized, following the path of the green revolution in the global north leading to a breakdown of traditional farming in the global south. Traditional culture is being undermined by mechanized farming as

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<sup>19</sup> Phil Howard, "Consolidation in food and agriculture: implications for farmers and consumers," *CCOF Magazine* 20, no. 4 (Winter 2003-2004): 2-6, reprinted in *Well Being Journal* 13, no. 2 (March-April 2004): 13-21; *Natural Farmer* 2, no.68 (Spring 2006):17-20.

half of the population of the developing world is involved in or dependent on agriculture<sup>20</sup>.

Equally damaging is mechanized farming<sup>21</sup> which is eliminating traditional and subsistence farming.<sup>22</sup> These trends coupled with neo-liberal policies allows agri-food giants to capture profits that might otherwise be realized by producers. Because of integration of the market these TNCs are able to dictate prices that would normally be the domain of a free market. However today, markets forces are influenced by policies that exclude small scale producers while leaving farmers vulnerable to price fixing. Lower farm gate prices coincide with greater costs from the same agri-food and agrichemical suppliers. As farm gate prices drop, the costs of chemical inputs like fertilizers is increasing, input demand is also increased with each years usage, as land becomes less fertile. The drop in farm gate prices<sup>23</sup> not only allows for greater profits for agri-food TNCs but also shackles farmers, in some cases to the same TNCs, for expensive farm inputs.

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<sup>20</sup> Catherine S. Dolan and Kristi Sorby, *Gender and employment in high-value agriculture industries*, Agriculture and Rural Development Working Paper 7 (Washington DC: World Bank, May 2003), pp. 1-90.

<sup>21</sup> Mechanized farming is the process of using agricultural machinery to massively increase farm output. In modern times, powered machinery has replaced many jobs formerly carried out by men or animals such as oxen and horses, [http://en.wikipedia.org/wiki/Mechanised\\_agriculture](http://en.wikipedia.org/wiki/Mechanised_agriculture).

<sup>22</sup> A free market economy is one where scarcities are resolved through changes in relative prices rather than through regulation. If a commodity is in short supply relative to the number of people who want to buy it, its price will rise, producers and sellers will make higher profits and production will tend to rise to meet the excess demand. If the available supply of a commodity is in a glut situation, the price will tend to fall, thereby attracting additional buyers and discouraging producers and sellers from entering the market. In a free market, buyers and sellers come together voluntarily to decide on what products to produce and sell and buy, and how resources such as labor and capital should be used. OECD, Glossary of Statistical Terms, <http://stats.oecd.org/glossary/search.asp>.

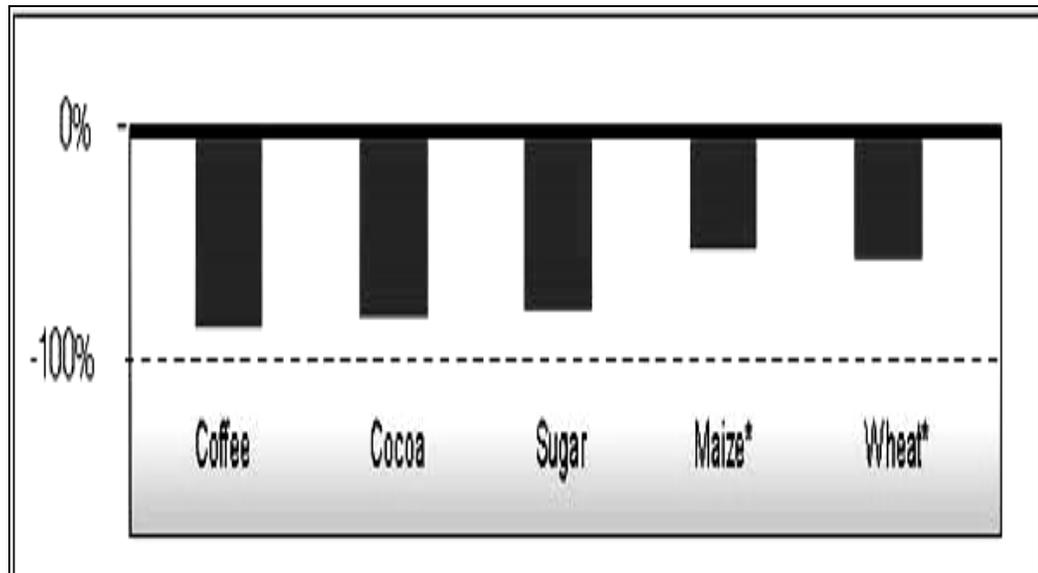
<sup>23</sup> Farm gate prices A basic price with the “farm gate” as the pricing point, that is, the price of the product available at the farm, excluding any separately billed transport or delivery charge. (ILO, IMF, OECD, Eurostat, UNECE, World Bank, 2004, Producer Price Index Manual: Theory and Practice, International Monetary Fund, Washington DC).

Table 1.2: Agriculture food chain

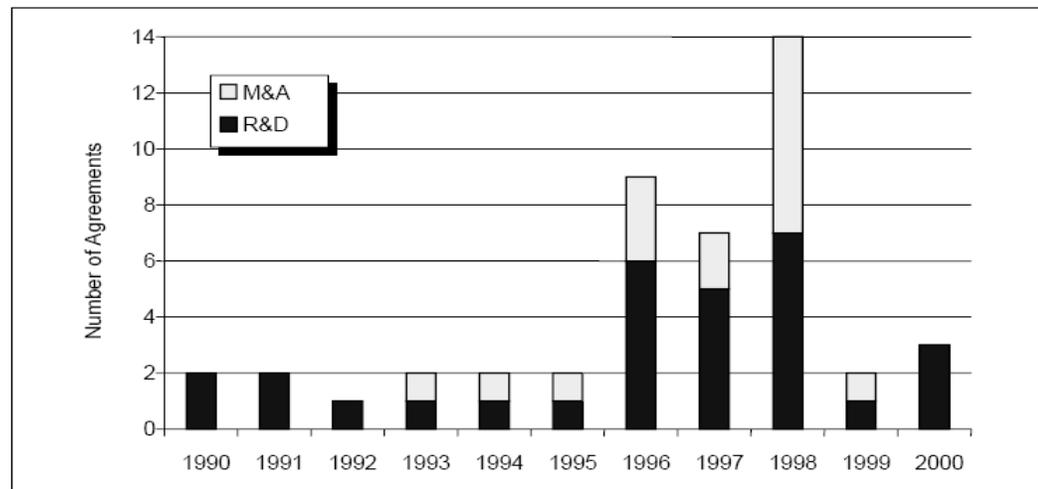
<b>The Agrifood Chain</b>	<b>Genes Seeds Chemical Inputs</b>	<b>Food/Fibre Trading Raw Processing</b>	<b>Further Processing Manufacturing</b>
<b>Leading TNCs</b>	Syngenta Monsanto DuPont Bayer	ADM Louis Dreyfus Bunge Cargill	Nestle' Kraft Foods Unilever PepsiCo
<b>Core Activities</b>	Seed and agrochemical production	Trading and primary processing of raw materials	Processing food and beverages
<b>Major Issues</b>	<ul style="list-style-type: none"> <li>• Control of intellectual property</li> <li>• Promoting technologies inappropriate for small farmers</li> <li>• Eliminating sustainable agriculture</li> </ul>	<ul style="list-style-type: none"> <li>• Using market power to push down prices</li> <li>• Unfair buying practices</li> </ul>	<ul style="list-style-type: none"> <li>• Using market power to push down prices</li> <li>• Standards that exclude small farmers</li> <li>• Unfair buying practices</li> </ul>
<b>Key Impact on Farmers</b>	<ul style="list-style-type: none"> <li>• Loss of right to save and exchange farm-saved seed</li> <li>• Increased input costs</li> <li>• Pesticide poisonings</li> <li>• Debt cycle</li> </ul>	<ul style="list-style-type: none"> <li>• Lower incomes</li> <li>• Exposure to volatile markets</li> <li>• Business costs and risks passed on to producers</li> </ul>	<ul style="list-style-type: none"> <li>• Lower incomes</li> <li>• Exclusion from markets</li> <li>• Business costs and risks passed on to producers</li> </ul>

Source: Action Aid, [www.actionaid.org](http://www.actionaid.org).

Figure 1.2: Farm gate price changes 1980-2002



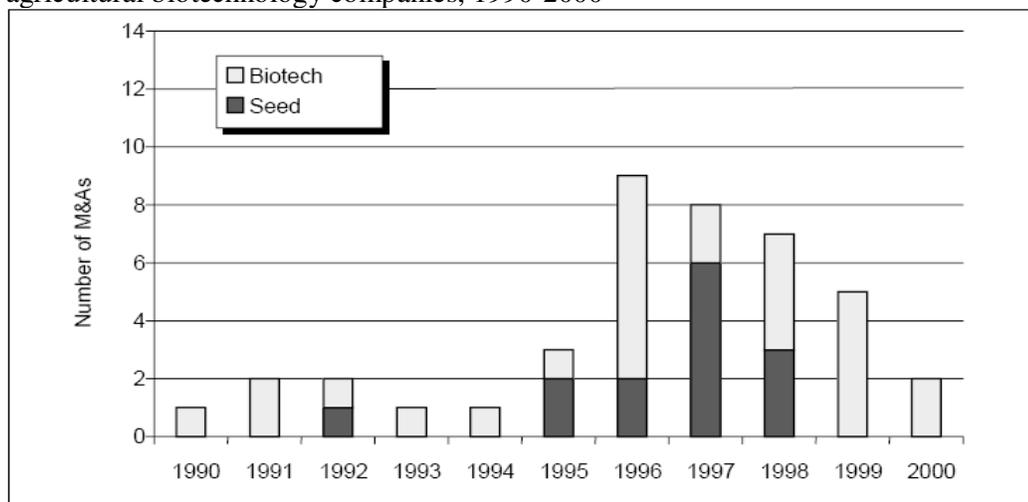
Source: Green Facts 2008, [www.greenfacts.org](http://www.greenfacts.org)

Figure 1.3: Merger and acquisition in research and development deals of Monsanto, 1990-2004<sup>24</sup>

Source: A Tale of Two Mergers: What We Can Learn from Agricultural Biotechnology Event Studies, <http://www.agbioforum.org/v5n1/v5n1a04-king.htm>

<sup>24</sup> John L. King, Norbert Wilson, and Anwar Naseem, "A Tale of Two Mergers: What We Can Learn from Agricultural Biotechnology Event Studies," *AgBioForum* 5, no. 1 (2002): 14-19, <http://www.agbioforum.org>, quoted in *Actions Database*, CD-ROM, Institute for Biotechnology Information. Raleigh, NC: Lexis-Nexis, 1999.

Figure 1.4: Biotechnology and seed company mergers and acquisitions by agricultural biotechnology companies, 1990-2000<sup>25</sup>



<sup>26</sup> A Tale of Two Mergers: What We Can Learn from Agricultural Biotechnology Event Studies, <http://www.agbioforum.org/v5n1/v5n1a04-king.htm>

The ability of agri-food TNCs to dictate market prices is developed through the vast web of linkages, partnerships and subsidiaries.

While global interactions have been beneficial in some cases, demanding higher agricultural standards across the board, these standards are also being used to exclude small scale farmers from major retail outlets. Further consolidation has allowed for price fixing agreements between producers and wholesalers that further degrade the free market. The sheer size of these emerging transnational agricultural

<sup>25</sup> "A Tale of Two Mergers," <http://www.agbioforum.org>, *quoted in* Structural Change in the Biotechnology and Seed Industrial Complex; Theory and Evidence, eds. N. Kalaitzandonakes and M. Hayenga with authors Updates (presented at the NE-165 conference. Transitions in Agbiotech: Economics of Strategy and Policy, Washington, DC, June 24-25, 1999).

<sup>26</sup> "A Tale of Two Mergers," <http://www.agbioforum.org>, *quoted in* Structural Change in the Biotechnology and Seed Industrial Complex; Theory and Evidence, eds. N. Kalaitzandonakes and M. Hayenga with authors Updates (presented at the NE-165 conference. Transitions in Agbiotech: Economics of Strategy and Policy, Washington, DC, June 24-25, 1999).

giants allows them to set prices, in most cases lower prices, forcing small scale farmers into debt and out of business. WTO regulations, Agreement on Agriculture, and IMF austerity measures give unfair advantage to the global north and in many cases forces developing countries to gear production to export oriented models resulting in, reduced social safety nets, inferior educational systems while increasing poverty. The TRIPS protocol, while intended to protect intellectual property rights, through patent awards, allows for the wholesale theft of indigenous agricultural resources such as seeds from the developing world. If the global food trade is left unchecked, it will wreak havoc on small scale producers. Free trade agreements will undoubtedly allow for continued grain dumping throughout the developing world, further undermining local pricing structures leaving small scale producers unable to compete. The Doha round of WTO negotiations voiced a high degree of discontent from the developing world. An immediate retooling of international food trade is fundamental to provide a just and sustainable global food supply. The future of small agricultural producers and communities hangs in the balance.

### **B. Challenges to the State: The Case of Cargill's Acquisition of Continental Grain**

Cargill's acquisition of Continental grain is a perfect example of horizontal integration. Anti-trust laws were designed to control the size and number of corporations within a given market.<sup>27</sup> The proposed merger of Cargill and Continental Grain, two of the biggest grain processors in the U.S., called into question the degree to which the market could remain competitive; the degree that processors are able to dictate price from their suppliers.<sup>28</sup> The U.S. Department of Justice (DOJ) uses the

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<sup>27</sup> Doug O. Brien, Developments in Horizontal Consolidation and Vertical Integration (research project from The National Center for Agricultural Law Research and Information, University of Arkansas School of Law, January 2005), pp. 1-12, [http://www.nationalaglawcenter.org/assets/articles/obrien\\_antitrust.pdf](http://www.nationalaglawcenter.org/assets/articles/obrien_antitrust.pdf).

<sup>28</sup> The Herfindahl-Hirschman Index (HHI) is calculated by squaring the market share of each firm competing in a market, and then summing the resulting numbers. The HHI number can range from close to zero to 10,000. The closer a market is to being a monopoly, the higher the market's concentration (and the lower its competition). If, for example, there were only one firm in an industry, that firm would have 100% market share, and the HHI would equal 10,000 ( $100^2$ ), indicating a monopoly. Or, if there were thousands of firms competing, each would have nearly 0% market share, and the HHI would be close to zero,

Herfindahl-Hirschman Index (HHI), a commonly accepted measurement of market concentration, for evaluating mergers. When calculating grain handling by the top four firms the U.S. Department of Justice estimated that the percentage of grain handled from any domestic port would figure at between 70-100 percent. They therefore decided that the merger of Cargill and Continental Grain could not take place as it stood. Cargill did however agree to sell 10 percent of its grain handling facilities to complete the merger.

Concerns about horizontal and vertical integration are not new. In the U.S. during the early part of the twentieth century several laws were passed to protect farmers. Due to the strength of large agriculture commodities traders during the late 19<sup>th</sup> century the United States Congress enacted the Sherman Act, the Clayton Act, the FTC Act and the Packers and Stockyard act.<sup>29</sup> These laws were designed to address the problems of horizontal and vertical integration. An examination of domestic laws and regulations may seem irrelevant when examining world politics, however when state policy can respond to international behavior and incorporate international norms and rules within (states) existing legal mechanisms international law becomes potent and enforceable. Moreover, state regulatory practices such as the court case detailed below, can be an important tool for international regulatory practice. That is to say that, if monopolistic practices and exploitation are unwelcome at home, they become equally unpalatable within the global arena. States that regulate corporate interactions at home are far more likely to ascend to international law such as the Food and Agriculture Organization's "Right to Food" treaty.

### **C. Cargill in the Amazon: Soybean Supply Chain Profile**

<sup>30</sup>“When it comes to Cargill's own production of chicken meat products, it controls the whole chain; from the soy farmer in the Amazon, to meat

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indicating nearly perfect competition. VESTOPEDIA,  
<http://www.investopedia.com/terms/h/hhi.asp>.

<sup>29</sup> Doug O'Brien, National Agricultural Law Center: *“Developments in Horizontal Consolidation and Vertical Integration”*2005

<sup>30</sup> Greenpeace report, *Eating up the Amazon* (April 6, 2006), pp. 1-64,  
<http://www.greenpeace.org/international/press/reports/eating-up-the-amazon>.

production and distribution, right up to the doors of the supermarkets and fast food chains.”

Cargill is the largest commodities trader in the world, with per annum sales of U.S.\$58 billion in 2001/2002.

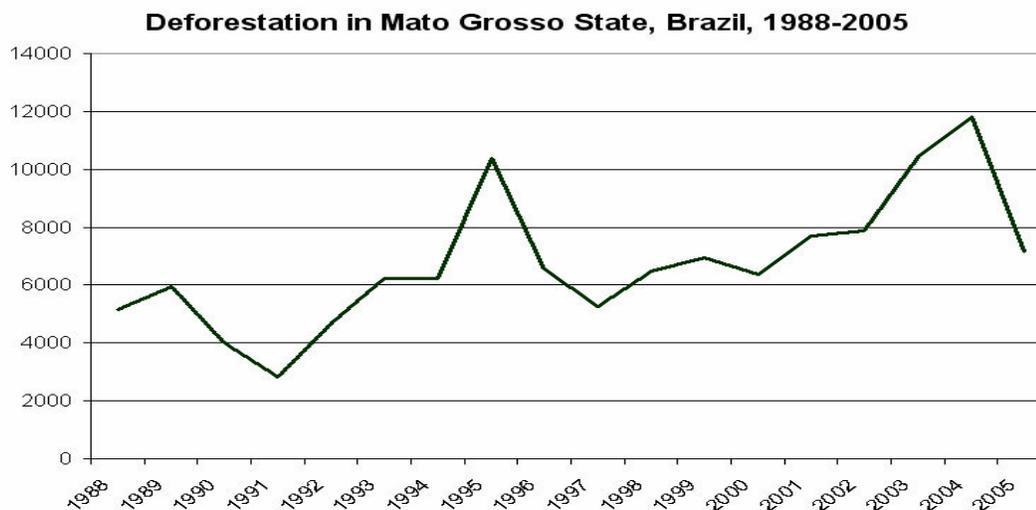
Cargill’s entrance into the Amazon spearheaded an unprecedented deforestation campaign fueled by cheap, often illegally obtained land and a growing global market for cheap protein based animal feed. Cargill was embroiled in legal battles with the Brazilian Environmental Agency (IBAMA) over an illegally built port used for transportation of soybeans to European ports. Located in Northern Brazil,<sup>31</sup> the port which was estimated to ship 1,000,000 tones of soybean a year at capacity was built without an impact study to the environment as mandated by Brazilian law. Rather than follow Brazilian law Cargill had decided to tie-up the already convoluted Brazilian judicial system with appeals. Meanwhile (Cargill) chose to operate the port illegally. Cargill, along with ADM and Bunge, supply everything from seeds and chemical inputs like fertilizer, to infrastructure, storage and transportation and shipping of foodstuffs to the global marketplace. Infrastructural developments as well as farming opportunities and jobs have acted as the pull factor for farmers entering the Amazon rain forest. The soybean feed is being produced to supply consumer driven demand in Europe with cheap meat and dairy products.<sup>32</sup>

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<sup>31</sup> Greenpeace report, *Eating up the Amazon* (April 6, 2006), pp. 1-64, <http://www.greenpeace.org/international/press/reports/eating-up-the-amazon>.

<sup>32</sup> Ibid.

Figure 1.5: Deforestation in Mato Grosso State, Brazil, 1988-2005



Source: Rhett A Butler, “State Deforestation in the Brazilian Amazon,” Mongabay.com, [http://www.mongabay.com/brazil-state\\_deforestation.html](http://www.mongabay.com/brazil-state_deforestation.html)

The soybean supply chain begins at the Mato Grosso (thick jungle) farms, among others, in the Central Amazon Rain Forest. Cargill’s port at Santarem in Northern Brazil made 300,000 hectares of land available for soybean cultivation. Amazon soybeans were then shipped to one of seven Brazilian ports;<sup>33</sup> the majority of the 780,000 tones in 2005 were destined for Cargill’s port at Santarem where Cargill was a trader/crusher for European export. From the port at Santarem the soybean was shipped to Liverpool, one of the European Union’s largest deep water ports with easy access via its direct infrastructure to Amsterdam. At this stage Cargill became a grain importer and distributor via the Netherlands to the UK. The grain was then transferred to a Cargill subsidiary feed producer, Sun Valley, where the soybean was fed to poultry then slaughtered and processed (chicken, fresh and frozen products) by Vion Food Group, Sun valley, for the retail and fast food industries; (McDonalds, KFC and the retail giant, Dutch Laurus Group).

Laws pertaining to domestic activities do not always affect interstate activity. For a further explanation of potential state and interstate control mechanisms we will turn to

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<sup>33</sup> Ibid at 14.

an examination of international agricultural organizations in chapter three. As a means by which to better understand the motivational factors in international business I explore the motivations behind the want of international expansion in chapter two. Why, given the many obstacles to international business do corporations seek global expansion and who suffers the consequences in this process?

#### **D. A Survey of current Literature on global food supply**

Although much literature exists concerning global food chains from an economic perspective, fewer studies give empirical evidence on the subject of agriculture and human rights. As most of the surveyed materials have a heavy bias, for or against liberalization, and the corresponding ramifications, positive or negative, I have included such mechanisms as well as those that may influence human rights such as corporate social responsibility (CSR), the Agreement on Agriculture as well as World Trade Organization policy and literature devoted to abuses within global food supply.

Three strands of thesis supporting literature contribute to the research. The first is the literature consisting of official WTO and UN (FAO) documentation; Agricultural agreements from the WTO's AoA protocols illuminate global agreements on free trade and investment. The second literature strand looks at critiques of global food chains. Civil society actors such as actionaid describe the global food supply chain as a force in need of regulations. Illustrating the lopsided nature of WTO agreements which gives greater control and advantage to the global north through the removal of government subsidies and protectionist tariffs from the global south while keeping intact government subsidies allotted to farmers in the U.S. and EU. This in turn denies small scale farmers needed government support for expensive farm inputs from agri TNCs, leading to a form of dependency on corporations for fertilizers and seeds and forcing small farmers deeper into debt.

Not Under the Same Sky: Bilateral Free trade Agreements (FTA's), Agriculture and Food Sovereignty by AZIZ Choudry is an initial report on the spread of Free Trade Agreements (FTAs) throughout the Asia-Pacific and their impacts on agriculture and food sovereignty, in the context of the current state of play of the

WTO, and the devastating legacy of agricultural liberalization through World Bank/International Monetary Fund structural adjustment programs. This report examines some of the agricultural liberalization aspects of FTAs, and also considers concerns about other provisions which have an impact on farmers and food sovereignty in the areas of intellectual property, sanitary and phytosanitary standards (SPS) and investment, including actual or projected impacts on relevant national legislation in areas such as bio-safety.

Like WTO agreements, FTA negotiating goals are formed by corporations working closely with government officials. This report backgrounds some of the history behind how agriculture first became subject to global free trade rules at the WTO, and examines both the interests of corporate capital in FTA moves, as well as broader geopolitical goals of the governments involved in FTAs in the Asia-Pacific.

Food Sovereignty: Towards democracy in localized food systems by Michael Windfuhr and Jennie Jonsén at FIAN-International shows how the food sovereignty policy framework addresses the global food supply dilemma. The policy framework starts by placing the perspective and needs of the majority at the heart of the global food policy agenda and embraces not only the control of production and markets, but also the Right to Food, people's access to and control over land, water and genetic resources, and the use of environmentally sustainable approaches to production. What emerges is a persuasive and highly political argument for refocusing the control of food production and consumption within democratic processes rooted in localized food systems.

Now, when there is intense debate about how the world will halve poverty and eradicate hunger, the policies that govern the way food is produced, consumed and distributed, how it is processed and traded, and who controls the food chain, need to be looked at comprehensively. This timely paper points a way forward and invites a more focused consideration of the principles behind what is fast becoming recognized as the most important food and agriculture policy consensus for the 21st century.

Achieving fairness in trading between supermarkets and their agrifood supply Chains, UK Food Group Briefing: September 2005, by Anne Tallontire and Bill Vorley reviews the opportunities and risks in incorporating fairness into mainstream trading between supermarkets and their agrifood supply chains. It was commissioned by the UK Food Group's Trans National Corporations Working Group to inform member organizations' research and campaigning strategies. The paper looks at the prospects for fair trade to become the norm rather than exception for trading between supermarkets, their suppliers, and farmers at home and round the world? Tesco and Asda, the UK's largest grocers together account for nearly half of supermarket spending, and are squeezing hundreds of millions of pounds from their suppliers every year in a permanent price war to deliver these kinds of profits and growth rates to their investors year after year. The paper shows how the cost of financial success is ruining rural livelihoods. (OFT, 2005).

Power hungry: six reasons to regulate global food corporations, illustrates how global food companies have grown too powerful and are undermining the fight against poverty in developing countries. How a wave of mergers, acquisitions and business alliances in the agrifood industry has concentrated enormous market power amongst trans national corporations (TNCs), how they are draining wealth from rural communities, marginalizing small-scale farming, and infringing people's rights. Action-aid stresses that urgent action is needed to re-govern agricultural markets so they benefit poor people, and to make companies legally accountable for their impacts on human rights and the environment. The report shows how transnational corporations such as Monsanto, Cargill, Nestlé and Wal-Mart have come to dominate supply chains for food and agricultural goods, from seed to supermarket shelf. Finally the report outlines the two decades of economic liberalization that enabled 'agrifood' TNCs to expand enormously in size, power and influence in developing countries; and as a result, how they now deal more directly with small-scale farmers and set farm gate prices.

Fair Trade For All: How Can Trade Promote Development, by Joseph E. Stiglitz and Andrew Charlton develops a plan to make market liberalization an effective tool for all. They begin with an overview of the current state of neo-liberal

policies and how they effect some of the world's most vulnerable. Further they build an argument for development that is beneficial to all. They suggest a development round of negotiations within the WTO to shore-up the liberalist model while attending to the inequities of past rounds (such as the Doha Round). Further they outline some mechanisms for special dispensations for developing countries, and in doing so examine the needs of players from behind their borders, making a case for an in depth analysis of actors and agreements at the community levels. They proceed to outline an effective way in which developing countries can ascend to global trading while suffering the least negative impacts. An important analysis is made of current global regimes such as the WTO recommending reforms to better facilitate fair trade. Finally an important analysis is made of the costs of structural adjustments as a means by which future agreements might not be so detrimental to the well being of developing states.

The works cited represent a body of literature relevant to the challenges of small scale agricultural producers.

### **E. Research Questions**

- How does the west dominate global food supply lines ?
- How can we expect the corporations to feed those who cannot afford to buy their food in the market?
- What kind of a private/public effort will it take to feed the hungry of the world?
- If developing countries are going to participate in the global food system, will it be as producers rather than as consumers? i.e. What percentage of land is being used for export rather than domestic production?
- How can and should independent farmers de-link from global food chains?
- What would happen if agriculture and food production were treated as any other form of production submitted to the rules of competition in an open and deregulated market, as decided in principle at the November 2001 WTO meeting in Doha?

- What national or international agency will track the changes happening in the food system in order for policymakers to make more informed decisions?
- Is food so unique it requires special policies? Is food different from other goods and services that are exchanged in the global system?

#### **F. Research Objectives**

1. Acquire a better understanding of the interplay between global food supply actors.
2. Discover the motivations behind global business practices and the effects such actions have on small farmers, development and human rights challenges.
3. Survey and analyze actors and mechanisms for potential change.

#### **G. Theoretical Framework**

Neo-liberalism is a policy that seeks to establish economic liberalism, which advocates minimal government intervention in the economy, promotes development and political liberties.<sup>34</sup> The overarching agenda in the neo-liberal movement has been the push towards free market-capitalist economies. Proponents of market liberalization claim that open markets create jobs, transparency in business, create more functional institutions ultimately leading to the democratization of the state. Neo-liberal agreements strive to remove trade barriers while increasing access to agricultural markets through tariff reduction. Agricultural trade agreements focus on the expansion of markets and further liberalization, above and beyond that which is required through austerity measures from the Breton Woods institutions. Detractors on the other hand claim that liberal markets or markets opened too free trade to quickly suffer from lack of competitive know-how and the capital to fully express their competitive advantage thus becoming sub-contractors to multinational food conglomerates, displacing local farmers and eroding local cultures. At the nexus of this debate lies the potential for policy change and adaptations leading to better development outcomes.

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<sup>34</sup> *Neoliberalism: Origins, Theory, Definition*, Political Philosophy at <http://web.inter.nl.net/users/Paul.Treanor/neoliberalism.html>.

Global business Transactions have increased steadily since the end of the cold war. The break-up of the former Soviet Union transformed many former eastern block countries from state controlled to free market economies. This change in the geopolitical make-up ushered in an era of global interaction unprecedented in history. The search for an appropriate theory with which to explain this transition has been elusive. Traditional international relations theories, the two common approaches, classical and scientific, proved insufficient. The Material based theories<sup>35</sup> of the realist perspective, mainly power; the pursuit of wealth and security are also inadequate. So called non-traditional theories like Kenneth Waltz's regime theory<sup>36</sup> and the social constructivist theory of Stephen Krasner<sup>37</sup> are concerned with how ideational factors influence state policy decision making and in turn, help to define the interactions within social, global, financial and commercial relationships, in effect how they influence material causes. Although neo-liberal policy provides the theoretical framework for this paper, these theories have also been influential. Likewise defining globalization is elusive. However, certain modern manifestations become precursors to a modern definition. Today there is a process of increased economic integration, a proliferation of political agreements, regional and international, used as a means to govern the process of international business<sup>38</sup> while promoting trade. These interactions can only be seen as part of the neo-liberal movement. China and India's rise as global powerhouses also helps us to view the process of neo-liberalization. Bi and multi lateral international commitments may signify a new age of globalization, differing significantly from the global governing agents of the old-war era. China's energy consumption and changing dietary needs now have the ability to effect marketing decisions in far corners of the globe. This

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<sup>35</sup> What makes a theory materialist is that it accounts for the effects of power, interests or institutions with reference to "brute" material forces. *Social theory of International Politics*, ed. Alexander Wend (New York: Cambridge University Press, 1999), p. 94.

<sup>36</sup> Kenneth Waltz's Regime theory states that actors will converge around given issue areas.

<sup>37</sup> Social constructivist theory involves critiques of mainstream Meta narrative style theories, namely realist, neo-realist and liberal and neo liberal theories, material based forms of power relation theories.

<sup>38</sup> Mervyn King, "Institutions in an Age of Globalization," *The Globalist*, Global Economy, 1 February 2007, <http://www.theglobalist.com/dbweb/StoryId.aspx?StoryId=5896>.

radical change in interstate economic relationships changes the way we view the phenomenon of globalization. These changes act as a signifier, separating past eras of global interactions with the more modern technologically driven global activity of today. This transition is being referred to as “An Age of Globalization”<sup>39</sup>. Global food supply, with its high degree of interconnectivity, lives within this modern schema. However, this vast web of business concentration allows a few global powerhouses a large measure of power making global business for small producers challenging. Further, I contend that the international food system is controlled by, and designed to benefit a group of global elites who are also the system’s economic beneficiaries and the target of the system’s production. This system also benefits from exploitation of labor and in some cases excludes labor because of low wages and a lack of buying power, from participation in the very market their labor produces.

#### **H. Thesis**

Without significant changes in global food supply, food will become a trade commodity and consumer good for the world’s affluent and not a fundamental right of all to be free from hunger.<sup>40</sup> (As affirmed by the Rome Declaration of World Food Security).

#### **I. Scope and Methodology**

This research project consisted of a literature review of materials on the topic of global food supply, governmental working papers and action plans as well as from International Non Governmental Organizations working in the field. Moreover a survey was made of academic journals and books by leading academicians in the fields of economics, international political economy and international relations.

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<sup>39</sup> Immanuel Wallerstein talks about the evolution of the global system in “Globalization of the Age of Transition? A Long-Term View of the Trajectory of the World System” (1999) In his paper he refers to the common belief that we now live in and age of globalization. Immanuel Wallerstein, *The End of the World As We Know It: Social Science for the Twenty-first Century*. Minneapolis: University of Minnesota Press. 1999

<sup>40</sup> United Nations Food and Agriculture Organization, “Rome Declaration on World Food Security,” World Food Summit, Rome, Italy, 13-17 November 1996, available at <http://www.fao.org/docrep/003/w3613e/w3613e00.htm>.

Further this document concentrates on particular players within global supply chains while not limited to global food actors. Also an analysis is made of the internal machinations of the firm to better understand why firms seek global connections. Further an analysis was made of particular actors having the ability to influence corporate interactions with an eye towards potential change in current global food chains.