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CAUSES & CONSEQUENCES OF AN UNSUSTAINABLE FOOD SYSTEM

Chryslyn Pais

ABSTRACT

It is often agreed upon that food and shelter are the two most important elements of human survival. At the same time, millions of people around the globe are either malnourished or living in hunger. The purpose of this paper is to present a macro-scale critique of the current food system and its connections to poverty and hunger. The first section of this paper is an introduction to the market commodity nature of the food system. This is followed by the exploration of unsustainable practices that are used within each sector of the system (these being production, consumption, distribution and transportation). I then outline how each of these unsustainable practices has led to or has further exacerbated poverty and hunger in the urban [and rural] context. The motivation for writing has come from a service-learning placement at a food redistribution centre in Vancouver, British Columbia. Personal reflections have left me with critical questions on the topics of hunger, poverty, food security and sustainability. This paper therefore seeks to make connections between these between these social issues.

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Introduction

It is often agreed upon that food and shelter are the two most important elements of human survival. At the same time, in 2003, the total number of hunger and malnourished people in the world totaled 854 million (WFP, 2008). The purpose of this paper is to present a macro-scale critique of the current food system and its links to poverty and hunger.

These connections will be made through the overarching theme of sustainability. At the 1992 Rio Earth Summit, the United Nations introduced the term sustainable development as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs". Sustainable development is believed to be approached by meeting needs under its three pillars of economic, environmental and socio-cultural sustainability (UNDESA, 2008). Using this notion, I define "unsustainable" practices as those which do not meet these pillars and as a result produce negative or harmful consequences in each realm. This paper seeks to view poverty and hunger as specific economic and social consequences of an unsustainable food system.

Writing a paper limits one to a linear representation of issues that, for a subject such as poverty and hunger, are in reality intertwined in a web of complexity. Although organized into specific sections, I do acknowledge that many of these issues overlap and can be connected to each other at several levels, depending on the scope and lens chosen.

The first section of this paper is an introduction to the market commodity nature of the food system. This is followed by the exploration of unsustainable practices that are used within each sector of the system (these being production, consumption, distribution and transportation). I will then outline how each of these unsustainable practices has led to or has further exacerbated poverty and hunger in the urban [and often rural] context.
The motivation for writing this paper was developed from a service-learning placement in Vancouver, British Columbia. Personal reflections from working with a Quest Food Exchange, a local food redistribution centre has left me with critical questions on the topics of hunger, poverty, food security and sustainability. This paper therefore seeks to make connections between these social issues.

Commodities, Consumers & Oligopolies

While studying the various elements of our contemporary food structures (distribution, production, transportation and consumption) can be a challenge, one important element exists as a characteristic of the entire system; the market commodity nature of food. Most of the world exchanges food within an economic setting (in return for capital). By economic theory, food is purchased and sold by individuals under free competition and is subject to the „invisible hand" of the market, a concept credited to economist Adam Smith.

However, anthropologist Anthony Winson writes that while our capitalist society allows food to be subject to the same economic „laws" that apply to other commodities, food is

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also linked to particular social and cultural characteristics which other commodities do not posses. Food is different from other commodities on the market in that it is explicitly and intrinsically linked to our human existence (Winson, 1993, p.1). While possessing another commodity (for example an electronic device) allows for social benefits, food ensures survival. In short, to eat is to live.

This is important to consider when thinking about the role that individuals play within the food system. Although food is necessary to human survival, individual purchasers are reduced to „consumers" within a market, rather than humans seeking subsistence. As a result, food is categorized as a commodity available to consumers with purchasing power rather than as a universal human right.

Even at the national level in Canada, food is not recognized by the government as a citizen's right. After several searches through the Canadian government website, I found that the only national government departments related to food include the *National Farm Products Council*, the *Canadian Food Inspection Agency* and *Agriculture and Argri-Food Canada*. While each of these agencies play an important role in food supply and safety, there exists no overarching federal government organization that is dedicated to food security, consumption and distribution within Canada. This is a major disconnect given that Canada signed the World Declaration of Nutrition in 1992, ensuring that "access to nutritionally adequate and safe food is a right of each individual" (Riches, 1997, p.61).

Proceeding with this notion that food is a privately administered market commodity, we see that the North American food system has undergone corporate agglomerations that other industries have also experienced. Economies of scale manifest themselves as larger companies such as Monsanto and Proctor & Gamble purchase smaller companies or merge with others. For example, currently over half of the food sales in the United States are controlled by the ten largest food and beverage corporations (Lyson & Raymer, 2000).

These transnational corporations also look to „vertically integrate" by taking over all levels of the food industry. Companies seek to control everything from equipment, seeds and animals to meat processing and packaging (Lee et al., 2002). The result is an oligopoly – an entire industry dominated by only a handful of companies. The inherent characteristics of oligopolies usually leave consumers exploited in the same manner as economic monopolies via higher prices and less real choice in product variety due to the lack of competition.

An Unsustainable System

I believe that the combined effect of the market commodity nature of food and the oligopolous take-over of the food industry has led to unsustainable practices in all elements of the food system. In this section I will explore how practices that have manifested themselves in food production, consumption, distribution and transportation can be deemed unsustainable.

Production

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In the production of food, many transnational companies have vertically integrated to create "factory farms" that dominate the rural landscape. Brewster Kneen writes that industrialization of farming and the blanket application of technology have been the driving factors that have transformed traditional agriculture into „agribusiness" (1993, p.74). As corporations take over food production, traditional farming has morphed into growing practices dedicated to producing a highest profit.

We see this transition from agriculture to agribusiness manifested in the corporate farming practices of pesticide use, genetic modification and over-farming. Such practices often lend to the highest yield and greater predictability in the quality of food products. The emergence of new markets in a growing food system of industrializing nations has led to increased use of these farming styles. During the 1970s and 1980s, the „Green Revolution" of India alone saw a total farm output increase of 40 percent (Hopper, 1999). However, these practices come with dire consequences. Pesticides resistance rates, loss of genetic plant diversity and over tilled, nutrient deficient soils have all increased as a result of practices brought on by the Green Revolution (Matson et al., 1997). Since 1945, approximately 17% of vegetated land has undergone human-induced soil degradation and loss of productivity from poor fertilizer and water management and soil erosion (Tilman et al., 2002). These unsustainable practices create a major strain on the physical land that produces our food rendering it broken (or even useless) for future generations to provide for themselves.

Consumption

Oligopolies have another unfortunate consequence. Prices are deemed by the few that dominate the system, in order to achieve the greatest profit. Consumers who [can] purchase within the system are often convinced by marketing ploys to purchase much more food than they need. Our obsession with accumulating more food than necessary can be seen everywhere, from the fast food option to „upsize" to the growing number of wholesale retailers (such as Costco and Sam's Club) in suburban areas.

I believe these practices of consumption are unsustainable in that they create a situation of "psuedo-demand". I define pseudo-demand as marketing-induced demand for food that is largely not needed for good quality of life. These are the oversized hamburger patties and jumbo packs of processed foods that have become a staple in the diet of an industrialized world. This type of induced demand creates a vicious cycle of induced strain on the production of food. It is unsustainable in that we are creating unnecessary pressure on the land that produces our food and reducing its ability to provide for the future.

Distribution

In distribution, access to food can also be manipulated by the few that control the system. Catering to the highest paying customer is often what will produce the greatest profit for these few players and is therefore the key factor in location. The result is a concentration of places of food in wealthier areas (think of the number of cafés and grocery stores one can find in a GTA suburb) and a depletion of these food access points in lower income areas. These food-free low income areas have become so prevalent in

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the urban form that they have been categorized as "food deserts" and become subject to a variety of academic research (Smoyer-Tomic et al., 2006).

This manifestation of the food system is unsustainable in the social context. It is unfathomable to think that with the amount of overproduction that occurs within this system, access to food is still limited or non-existent for many individuals. As a society, if we can not provide food equitably for the current generation, we need not bother to ask how we shall do so for those to come.

Transportation
The transportation of food has faced many changes over time. With technology and industrialization, the commodity of food has become tradable from local to global scales. The result is a highly globalized system of food that is based on cheap transportation. We see this manifested in the „food miles" that can be counted at any North American grocery store. A typical produce section is often packed with items from all over the globe, having traveled thousands of kilometers from farm to plate.

This aspect of the system is unsustainable in two contexts. The first is the sheer volume of greenhouse gases (GHG's) produced by the movement of food freight. The carbon emissions from such a global industry play a vital role in the effect of climate change on future generations. The second unsustainable state of the transportation of food is that it its physical networks are built on the availability of cheap oil, a finite and non-renewable resource. This will prove to be a challenge for future generations with the onset of "Peak Oil" – the point at which we have maximized our petroleum resources (Deffeyes, 2001, p.1).

Given the states of each of its components, it can be said that the food system as a whole is largely unsustainable. It is a system that exists to profit a few at the cost of current and future generations, rather than a system that provides nutritional subsistence for all.

Poverty and Hunger: Consequences of Food System
In 2000, 4.72 million Canadians lived in poverty (NAPO, 2003). I believe that poverty and hunger are direct and indirect consequences of the fore mentioned unsustainable practices of our current food system. While I acknowledge that poverty and hunger are incredibly complex social issues that exist due to far more than a handful of reasons, this section seeks to make specific connections between the unsustainable food system and its social and economic consequences.

Production
The production of food in the contemporary age of agribusiness and factory farms has led to the exacerbation of rural poverty in many traditional farming regions. In a 2007 report published by the World Society for the Protection of Animals (WSPA), Janice Cox links the impact of industrial agriculture on global poverty. Cox's research on the exponential growth of industrial agriculture has pointed to the consequences of poverty in the regions that it has come to dominate. Among some of the dire consequences, industrial agriculture has been shown to put small farmers out of business and destroy

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rural communities (WSPA, 2007). With their livelihood stripped of them in the name of economic profit for a few, farmers are left to struggle or abandon their farms for a life of rural or urban poverty, respectively.

Consumption

At the consumption level, the oligopoly of transnational corporations allows major players freedom to set the prices of food at the costs of the consumer. As a result, an individual's purchasing power is the key to accessing food within this system. Those who are already living in urban poverty, marginalized by low wages or a general insufficient income are further polarized based on whether or not they can access food. In Canada alone, 704,000 people every month use food banks for their subsistence – a number that has been on the rise in the last decade (FBC, 2008). Since food security is inherently dependant on income levels, the logic of a system based on purchasing power ensures that the poor remain hungry.

Linked to the production of food, this unregulated system of consumer prices has a major impact on the economic stability of individual farmers. If the onset of factory farms already physically weeds small farmers out of the system, then the market prices deemed by large companies further exacerbate this phenomenon. With dominating multinational companies setting the rules, small farmers are unable to compete within the market.

The only protection is the existence of a small handful of provincial and federal marketing boards to defend small Canadian farmers that are being pushed out of the agricultural system. The 1980 National Report of the People's Food Commission found that "the majority of farmers, despite their grumblings, defend marketing boards as the only institution they have at this time to protect them from the ravages of 'free enterprise' for farmers, and the monopoly control for the corporations" (p.66).

Without this minimal protection, farmers sit on a dangerous plank, choosing to make just enough [or not enough] income from a fragile market or abandon their livelihoods to large corporations. Thus, the rural poverty mentioned earlier is only further exacerbated in the consumption sector.

Distribution

The manifestation of food deserts on the North American urban landscape plays a major role in the ongoing plights of urban poverty. In particular, the lack of access to nutritious food in these areas only exacerbates the rates of child poverty in Canadian urban centres. In their 1996 study on malnutrition, poverty and intellectual development, Brown and Pollitt found a distinct inverse relationship between malnutrition and intellectual development in lowest-income children (Brown and Pollitt, 1996). The lack of academic success in this cohort is a major challenge for children to rise up and out of poverty during their lifetime.

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Transportation
The links of poverty and hunger to food transportation are slowly becoming apparent on the current world stage. The globalized food market that has been created as a result of cheap transport will face major challenges as the world embraces the onset of Peak Oil. By taking advantage of the age of cheap oil, we create greater dependence on other nation states for the provision of food in one country. I believe that this makes for a politically and socially unstable society. In this type of fragile relationship, one wrong political move can create dire consequences for a country's access to food. It seems absurd for one country to explicitly depend on others to ensure the survival of its citizens.

The impact of climate change is also playing a significant role in the current food security of many nations. In addition to the rising oil prices, freak weather as a result of climate change is creating an increasingly volatile food market in which the current prices of food have been skyrocketing (AP, March 25 2008). The dynamic nature of this instable system is likely to leave many already marginalized populations hungry, yet again.

John Powell, the deputy executive director of The United Nation's World Food Program commented on the recent global food riots, stating that those most vulnerable to poverty and hunger [as a result of the increasing food prices] are people who live in cities. He also further commented to the Associated Press that the urban poor "see food on the shelves but they cannot afford to buy it" and that urban poverty is the "new face of hunger" (AP, Apr 08, 2008).

Conclusion
The market commodity nature of the food system along with its unsustainable practices in its sectors of production, consumption, distribution and transportation has left us with a system that is broken. Each of the practices have produced consequences that can be linked directly or indirectly to poverty and hunger. These consequences have manifested themselves in both urban and rural landscapes. They have created unnecessary complexities and worsened the fragile physical, social and economical means of human existence.

Although many countries including Canada have recognized food as human right, we have failed to follow through on a call to action. Looking to the future, it is imperative that we move away from a profit-for-few food system, to one that provides equitable access to food for all.

This requires a categorical shift in our understanding of food access. If this paper has served to outline the problems in a complex food system, then what is needed is a system-wide approach to food security. As a country that has publicly recognized food is a human right, Canada needs to carry forth this notion into action.

To start, we need a national governing body that will actively address the setbacks in each sector of production, consumption, distribution and transportation to ensure food security for all Canadians. We need to address the unsustainable practices of each

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component of the system and tackle the economic control of a few companies that dominate the market.

Changing the way in which we think about food access is the only way to ensure subsistence for all human beings. To take on this challenge will mean to meet the needs of this generation as well as of those to come.

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