

**[Research Material]**

## The Need for an Ethical, Sustainable Approach to Global Food Security

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### **Abstract**

This paper examines the causes and effects of global food insecurity and suggests potential solutions. According to the Food and Agriculture Organization of the United Nations, food security means “when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life” (Food Security Statistics, para. 1). However, there is a growing crisis of global food insecurity that necessitates immediate action. The world population is expected to reach nine billion by 2050, placing additional pressure on food resources, and most of this increase is expected to occur in cities in developing countries (Cohen & Garrett, 2010). In the midst of the global economic crisis of 2008, 75-133 million people fell below the poverty line, bringing the total number of people suffering from hunger to more than one billion (Bassett, 2010). According to de Pee et al. (2010), under nutrition is the cause of 3.5 million preventable deaths in children and 11% of total diseases worldwide. To meet the needs of a growing population, food production will need to increase 70-100% by 2050 (Wolt, 2012). However, Hanjra and Qureshi (2010) predict that world agricultural production will fall 1.5% annually until 2030, and a further 0.9% by 2050. Prior to 2008, food price increases, especially in wheat, rice, and corn, exacerbated the crisis of global food insecurity (Paul & Wahlberg, 2008; Tiwari & Zaman, 2010). Even the United States is not immune to food insecurity where it has been associated with obesity (Pan, Sherry, Njai, & Blanck, 2012). Clearly, “ending food insecurity, hunger, and malnutrition is a pressing global ethical priority” (von Braun, 2010, p. 449). This paper argues that global food insecurity must be addressed through an approach that incorporates ethics and sustainability and acknowledges the multi-dimensional nature of the problem.

### **Causes of Global Food Insecurity**

#### **The Water Crisis**

Food production depends on the availability of water. It follows that water

scarcities seriously impact food production. The impending global water crisis, therefore, will have direct implications for food insecurity. In the documentary, *Blue Gold: World water wars*, Achbar, Litvinoff, and Bozzo (2008) point out that, although the earth is 97% water, only 3% is fresh water. Much of this fresh water is under threat because of pollution, human activities, and disruptions in the hydrologic cycle. In addition, the documentary asserts that water shortages are causing excessive mining of groundwater faster than it can be replenished. Achbar et al. blame the impending water crisis on the ongoing privatization of water wherein large water companies and the World Bank have made Third World debt relief contingent upon the privatization of water. These practices are both unethical and unsustainable.

Hanjra and Qureshi (2010) have established a direct link between water shortages and global food insecurity, pointing out that 40% of the global food supply comes from irrigated land. As the water crisis worsens, irrigation will become more difficult leading to a decline in agricultural production. The problem is likely to be most acute in arid and semi-arid regions, home to many of the world's poor. Currently, about half a billion people live in these water-stressed regions, with that number expected to increase to three billion by 2025 (Hanjra & Qureshi). Demand for increased agricultural production exacerbates water scarcities and environmental problems such as deforestation, loss of biodiversity, and cropland degradation (Khan & Hanjra, 2009). These, in turn, contribute to global food insecurity.

### **The Global Economic Crisis**

**The food price spike.** The 2008 global economic crisis has had serious consequences for global food security. Most notably, the sudden spike in food prices has had the greatest impact on the world's poor, showing their susceptibility to external economic shocks (Tiwari & Zaman, 2010). Tiwari and Zaman (2010) found that, in 2007, wheat prices doubled, rice prices increased from \$370 per ton to \$1,000 per ton, and overall food prices increased by 38%. Government deregulation and widespread market speculation have been identified as factors contributing to the food price spike (Lagi, Bar-Yam, & Bar-Yam, 2012; Paul & Wahlberg, 2008). Other factors, according to Tiwari and Zaman, include "an export ban on rice and wheat from a few key exporters, diversion of food grain towards the production of biofuels, higher energy prices, and the depreciation of the dollar" (p. 2). Biofuels, in particular, have come under increasing scrutiny because of price hikes resulting from the displacement of food crops (Gamborg, Millar, Shorthall, & Sandoe, 2012). In April 2008, the World Bank stated that "biofuels are 'the major cause of the increase in food prices,' responsible for more than 50% of the overall price increases" (as cited in Paul & Wahlberg, 2008, p. 5).

**Biofuels displacing food crops.** The increase in biofuels production at the expense of food crops has become a serious concern (Lagi et al., 2012; Paul & Wahlberg,

2008). Rising petroleum prices have increased pressure to convert to biofuels, and this contributes further to food insecurity especially in developing countries (Gamborg, Millar, Shortall, & Sandoe, 2012; Pimentel et al., 2009). While the original intention of bioenergy was to offer an environmentally sound alternative to fossil fuels, the production of biofuels (from soy, palm oil, sugar cane, and corn) is now being blamed for food shortages (Gamborg et al., 2012). There are also ethical concerns about the use of food grains, suitable for human consumption, to generate biofuels (Pimental et al., 2009) and the use of land, a finite resource, to cultivate cash crops instead of food crops (Gamborg et al., 2012). Cassman and Liska (2007) state that “10 years from now, the rapid expansion of biofuel production may look . . . unethical, if it leads to environmental degradation, high food prices, and increases the number of undernourished people” (as cited in Gamborg et al., 2012). Ultimately, “if you start to fuel cars with crops . . . you are instantly putting the world’s one billion starving people in competition with the world’s one billion motorists” (Ed. Matthew as cited in Gamborg et al., 2012).

**Economies under strain.** The global economic crisis has had a devastating effect on economies worldwide. Many countries are still experiencing high unemployment, declining incomes, decreased government spending and subsidies, and higher taxes on food, with developing countries hardest hit (de Pee et al., 2010). Von Braun (2010) asserts that the burden on the world’s poor is especially acute because of lost wages, the inability of small farmers to meet their debts, and declining investment in agriculture. Even in the United States, food security has been compromised. For example, Greenberg, Greenberg, and Mazza (2010) describe a food pantry where the number of needy people increased from 250-300 per month in 2007 to 2,500-3,000 per month in 2010. The global economic crisis, they contend, has seen U.S. government subsidies decrease by two-thirds. As a result, “The food insecure proportion of the U.S. population increased from 11.1% to almost 14.6% between 2007 and 2008 . . . the highest recorded prevalence of food insecurity since the U.S. Food and Drug Administration began its annual survey in 1995” (Greenberg et al., 2010, p. 2021).

**Ethical issues.** The impact of the global economic crisis on global food security is leading to serious questions about the original causes of the crisis, and how such financial catastrophes can be prevented in the future. In the documentary, *Meltdown: The secret history of the global financial collapse*, McKenna (2010) describes the crisis as “an orgy of greed and recklessness” and points the finger of blame directly at American financial regulators. This documentary describes worldwide anger towards the United States as repercussions spread around the world, to Europe, Africa, and Asia, and millions of people lost their jobs, homes, and life savings. This disaster has led to calls for the inclusion of ethics and social responsibility training in business education programs (Ed. Freeman, as cited in Arjoon, 2010). Under Allen Greenspan, the replacement

of “regulating agencies and self-regulating professions by self-interested investors and self-regulating markets” (Belousek, 2010, p. 89) has been decried as a major contributing factor to the global financial crisis, and ultimately global food insecurity.

### **Climate Change**

The Intergovernmental Panel on Climate Change (IPCC) has declared that the world is experiencing temperature and precipitation changes as a direct result of human activity (2007). Increased amounts of greenhouse gases and the warming of the earth’s atmosphere have led to extreme weather events resulting in serious implications for ecosystems, water resources, and global food security. While crop production is expected to increase in higher latitudes, it is expected to decrease in lower latitudes, especially in arid and tropical areas, thereby increasing the risk of hunger (IPCC, 2007). This is especially true in rain-fed, agricultural areas in Africa where agricultural yields are expected to decrease by 50% (IPCC, 2007). Hanjra and Qureshi (2010) reiterate this concern, warning that changes in rainfall distribution and increasing temperatures will severely impact crop production in poor, arid, and semi-arid areas. Paul and Wahlberg (2008) state that extreme weather conditions are eroding topsoil and destroying crops while higher temperatures have spawned an increase in the number of pests and crop diseases. Therefore, it is imperative to address the issue of climate change in order to ensure global food security.

### **Increasing Urbanization**

As stated above, world population is expected to reach nine billion by 2050, with most of this increase anticipated in the urban areas of low- and middle-income countries (Cohen & Garrett, 2010). This, according to Cohen and Garrett, will draw poverty into cities, which will be particularly problematic as most urban dwellers lack access to land and rely on purchasing rather than growing their own food. City dwellers also spend a much higher percentage of their generally low incomes on food than rural dwellers, making them more vulnerable to sudden food price hikes. Cohen and Garrett also point out that increasing urbanization has led to a nutritional transition that involves increased consumption of highly processed foods with “saturated and trans-fats, sugar and salt, and less fibre” (p. 471). An unhealthy diet, combined with less active lifestyles, increases the risk of disease. Despite these concerns, most policy recommendations focus on rural food insecurity to the neglect of urban hunger and poverty (Cohen & Garrett).

## **Effects of Global Food Insecurity**

### **Nutritional**

Lack of access to a quality, well-balanced diet causes nutritional deficiencies and health problems, especially among the very young. De Pee et al. (2010) claim that inadequate nutrient intake in the first two years of life affects 178 million children

worldwide. This leads to “susceptibility to infections, slowed cognitive development and growth, reduced school performance . . . [and] susceptibility to developing chronic diseases” (p. 139s). Inadequate nutrient intake in the early years of life will also impact adult productivity and lifelong earning potential (De Pee et al.). Cohen and Garrett (2010) claim that increasing food prices make healthy eating difficult and negatively impact the consumption of vital micronutrients, while Hadley, Stevenson, Tadesse, and Belachew (2012) warn of the mental and physical consequences of food insecurity such as malaria, general weakness, diarrhea, and other conditions. Finally, von Braun (2010) warns of impaired cognitive development and compromised immune systems as a result of micronutrient deficiencies.

At the opposite end of the spectrum, Pan et al. (2012) have discovered a link between food insecurity and obesity in the United States. Their research shows an obesity epidemic among low-income adults in 12 states. Pan et al. define food insecurity as lacking sufficient income to buy food. The reason it causes obesity, they explain, is that food insecure people tend to overeat when food is available, and that the body’s natural response to food restriction is to conserve body fat. They often rely on “low cost, high energy foods” (p. 1403), which are often loaded with sugar and fat. Food insecurity also causes anxiety and depression, further contributing to obesity. Pan et al. conclude that, because adults in their study had a 61% greater chance of being obese, and because obesity leads to a host of other health problems such as heart disease, hypertension, and stroke, there is a pressing need to ensure “access to affordable healthy foods for all adults” (p. 1408).

### **Non-nutritional**

The non-nutritional effects of global food insecurity can be just as devastating as the nutritional effects. “Food insecurity measures that consider only nutritional consequences such as caloric intake may be measuring only the tip of the iceberg in terms of human suffering” (Hadley et al., 2012, p. 2419).

**Coping strategies.** It is hardly surprising that the world’s hungry have had to resort to desperate measures in their attempts to deal with food insecurity. These coping strategies include reduced spending on nutritious, high quality food, and the consumption of fewer, smaller meals (Cohen & Garrett, 2010; de Pee et al., 2010; Hadley et al., 2012; von Braun, 2010). De Pee et al. (2010) also state that the urban poor--those who spend 50-80% of their incomes on food--often reduce spending on animal sourced foods, fruits, and vegetables that can have high nutritional value. Hadley et al. (2012) express concern that these coping strategies lead to reduced dietary diversity, consumption of lower quality foods, and skipping meals while Cohen and Garrett (2010) and von Braun (2012) warn of reduced spending on other essentials such as healthcare and education. Extreme desperation has led to extreme measures such as those undertaken by people in Niger

who took out high interest food loans, and others in South Africa who resorted to prostitution to feed their families (Cohen & Garrett, 2010).

**Political instability.** Lack of access to adequate, affordable, nutritious food often leads to political instability and unrest. In 2007 and 2008, rising food prices and cost of living increases led to street protests in more than 60 countries (von Braun, 2010). Many of these protests turned violent (Cohen & Garrett, 2010), and food riots have been documented in over 30 countries (Paul & Wahlberg, 2008). Many of these protests took place in cities, highlighting the plight of the urban poor.

**Cultural impact.** In some countries, global food insecurity and the food price spike have had an adverse effect on cultural practices and social cohesion. In 2011, Hadley et al. investigated the impact of rising food prices and food insecurity in urban Ethiopia. They found that many traditional cultural practices are in decline. These include the custom of bringing food to funerals, sharing food with neighbors, and participating in Ethiopian coffee ceremonies. All of these traditions play an important role in bringing communities together and fostering social cohesion and underscore the deepening impact of food insecurity. Thus, Hadley et al. (2012) claim that there is a need to consider the mental and social wellbeing of food insecure people. Their work reaffirms research carried out by Nanama and Frongillo (2011) in Burkina Faso linking food insecurity to feelings of shame, alienation, and domestic conflict.

### Potential Solutions to Global Food Insecurity

Global food insecurity is a multi-dimensional problem that requires a multi-dimensional solution grounded in ethics and sustainability. Agricultural, economic, environmental, and social issues must all be addressed, and this will require international cooperation.

#### Agricultural

**Changing agricultural practices.** Many advocate a shift from large scale, industrial agriculture to small scale, sustainable agricultural systems that use natural techniques and preserve biodiversity (Bassett, 2010; Cohen & Garrett, 2010, Morgan, 2010, Perfecto & Vandermeer, 2010; von Braun, 2010). Current agro-industrial practices have been criticized for their role in reducing biodiversity, damaging ecosystems, and being “deeply entrenched in political systems, [and] global corporate interests” (Paul & Wahlberg, 2008, p. 8). According to von Braun, “A comprehensive new approach, founded upon strong ethical principles and right incentives, is needed to address persisting hunger and the rising challenges in the agri-food system” (p. 449). Morgan contrasts two agricultural systems: an “intensive, industrialized and productivist agrifood system” which values “quantity over quality,” and a “sustainable agrifood system” which emphasizes “ecological integrity and social justice” (p. 1853). Likewise, Perfecto and

Vandermeer argue that an *agroecological matrix*, comprised of small-scale farms, can be as productive as industrial agriculture because local farmers know the land and its ecology well and can indirectly help solve the biodiversity crisis. Paul and Wahlberg decry the shift from small peasant farms towards “capital-intensive production on large holdings” (p. 8) in the relentless pursuit of short-term profits. Such a system, they warn, is unlikely to produce the 50% increase, which will be required to feed the world’s population by 2050. This suggests that the current industrial agricultural system is unsustainable and needs to be modified to meet the food needs of a growing world population.

**Pro-poor agricultural research and development.** It is important to provide assistance to small local farmers and peasants to help increase sustainable output (Hanjra & Qureshi, 2010; Paul & Wahlberg, 2008). Hanjra and Qureshi point out that while past investments in agriculture have helped to increase productivity and profitability, the right of all people to food must be considered, regardless of profit. Therefore, they advocate pro-poor agricultural investment that provides “new food production technologies to small farmers” and helps developing countries to “shore up domestic food supplies since they cannot afford dependence on expensive food imports” (p. 373). Von Braun (2010) recommends investment in agricultural research and development (R&D) that targets the poor. Such research, he claims should ensure that technological innovations such as biotechnology, biofortification, and nanotechnology are available to small farmers so that they can increase food productivity and enhance the nutritional value of their food. Hanjra and Qureshi (2010) and Wolt (2012) also advocate biotechnology as an effective way to improve food quality.

**Closing the technology gap.** There is, however, a large technology gap between developed and developing countries. The documentary, *Next World – Future superhuman*, describes an exciting array of futuristic technological innovations that aim to enhance human health and well being (Kennedy, 2008). These include sub-vocal speech technology, contact lens downloading, the use of nanotechnology to regenerate lost body parts, and genetic research aimed at preventing diseases and extending lifespans. While these innovations could do much to alleviate the suffering of the world’s poor, the irony lies in the fact that they will most likely be cost prohibitive for most ordinary people, even in developed countries. Such innovative research, if it is to be worthwhile, should be accessible to the poor in developed and developing countries. It should also include research on sustainable agricultural practices. “A science and technology initiative is needed . . . [that focuses on] “increasing agricultural productivity, . . . small farm incomes, sustainable agricultural practices, natural resources management, international competitiveness, and food quality and health” (von Braun, 2010).

**Environmentally friendly agricultural practices.** New agricultural

technologies should also target the environmental damage caused by intensified land use that has accompanied the expansion in irrigated agriculture. Khan and Hanjra (2009) detail some of this damage, including the loss of natural habitats and biodiversity, soil degradation, depletion of groundwater aquifers, and the “reduced capacity of the ecosystems to sustain food production” (p. 133). They view this as a major threat, and recommend carbon sequestration to ensure “rehabilitation of degraded soils and dryland agro-ecosystems, while increasing productivity” (p. 137), avoidance of deforestation, and better cropping systems. Investment in such technologies would seem to be ethically sound.

**A new policy on biofuels.** It is also necessary to adopt new policies in relation to biofuel production. Some have called for an end to government support for the production of biofuels (Lagi et al., 2012; Paul & Wahlberg, 2008). Cohen and Garrett (2010) call for a new international policy on biofuels while Gamborg et al. (2012) claim that the main ethical issue is land use. Land is a finite resource, and if land that could be used to produce food is being used for biofuels instead, that is ethically unacceptable. Jean Zeigler, the UN Special Rapporteur on the Right to Food (2000-2008) said, “It is a crime against humanity to divert arable land to the production of crops which are then burned for fuel” (as cited in Gamborg et al.). Ultimately, according to Gamborg et al., the availability of land is the most critical issue to consider in addressing world hunger.

**Non-traditional agriculture.** Some have suggested shifting to other forms of agriculture in the quest to address global food insecurity. Hanjra and Qureshi (2010), for instance, suggest moving beyond traditional farming practices and engaging in mariculture. This would include the production of seaweeds and marine animals that, in combination with traditional agriculture, would make efficient use of natural resources. They also suggest producing foods in controlled environments, extensive use of nanobiotechnology, as well as the production of synthetic foods that might help alleviate the global food crisis. Others recommend policies that encourage urban agriculture because most global population increase is expected to occur in cities where dwellers generally purchase, rather than grow, their own food. Cohen and Garrett (2010) point out that while urban agriculture is illegal in many cities, there are examples where urban dwellers can grow crops and keep livestock. Many of these urban farmers are women and “by one estimate, 200 million city dwellers produce food for urban markets, accounting for 15-20 per cent of global food production” (Van Veenhuizen, 2006, as cited in Cohen & Garrett). Therefore, it seems logical that urban agriculture has a role to play in alleviating global food insecurity.

### **Economic**

**Market practices.** As stated previously, the global economic crisis and ensuing food price spikes have contributed greatly to food insecurity worldwide. Therefore, any

attempt to address food insecurity must consider economic factors. McKenna's (2010) documentary, *Meltdown: The secret history of the global financial collapse*, draws attention to the unethical behavior of financial regulators, self-interested investors, and market speculators in contributing to the economic crisis. It is no surprise, then, that many have called for the reversal of market deregulation and a reduction in financial speculation (Lagi et al., 2012; Paul & Wahlberg, 2008). "Speculation in international commodities markets has contributed to upward pressure on food prices" (Paul & Wahlberg, p. 7). Others have stressed the importance of reducing food price volatility because of the susceptibility of the poor to sudden food price increases (Cohen & Garrett, 2010; Morgan, 2010). Paul & Wahlberg have called for an end to privatization in order to allow government management of grain stocks. This, they claim, would help "insure (sic) a steady supply of reasonably priced food" (p. 9). Similarly, ending privatization of water resources is an essential component of global food security. This would bring an end to the problem mentioned in Achbar et al.'s (2008) documentary, *Blue Gold: World Water Wars*, wherein water companies and the World Bank have made Third World debt relief contingent upon privatizing water. Ending privatization would free up much-needed water resources for agricultural production. There are also calls for fairer trade, tax, and food distribution systems that currently favor developed countries (Cohen & Garrett; Hanjra & Qureshi, 2010; Paul & Wahlberg) and greater regulation of trading and agro-industrial companies (Paul & Wahlberg).

**Ethical issues.** It could be argued that many of the economic factors contributing to global food insecurity have their roots in a lack of ethics and morals. Arjoon (2010) suggests that "the current global economic crisis was caused by the narcissistic personality disorder of corporate leaders who substituted robust risk management for greed and personal gains" (p. 59). Professor Ed. Freeman, of the University of Darden Business School, advocates incorporating ethics and social responsibility into business education programs (as cited in Arjoon). Furthermore, Arjoon points out that the free market system cannot properly function without decision makers who are both economically and morally competent: "The market system . . . flourishes when it functions in an ethical and juridical framework in which the vulnerable are protected, and the arrogance of the powerful is curbed" (p. 70). The 2008 Nobel Prize-winning, Princeton economist, Paul Krugman expressed alarm over the way in which the relentless pursuit of short-term profits at the height of the crisis took priority over any concern for the common good (as cited in Belousek, 2010). All of these factors have contributed to the food price spike and to global food insecurity and demonstrate the need for "prudent regulation of both self-interest and systemic risk in financial markets" (Belousek, p. 89).

### **Environmental**

**Climate change.** As mentioned previously, increasing greenhouse gas emissions are causing global climate change, which is in turn having an adverse effect on food production (IPCC, 2007). Therefore, policy makers addressing global food insecurity must consider climate change. While many have called for increased corporate social responsibility (CSR)--especially among high-polluters--others claim that responsibility for climate change rests with everyone: individuals, corporations, and countries (Besio & Pronzini, 2013). Similarly, Smith (2013) claims that *mediated responsibility*--the combined impact of individuals and corporations on the environment--should be considered when assigning culpability. That said, there is a case to be made for government pressure on corporations to reduce greenhouse emissions. Besio and Pronzini acknowledge the importance of codes of conduct as part of CSR, and maintain that some companies already implement specific measures to address climate change. Ultimately, an ethical, sustainable approach is best from all parties involved. “Responsible action is that which is sustainable and just. The underlying message is that responsible collective behavior can solve environmental problems” (Besio & Pronzini, “Outside Organizations,” para. 10).

**Water scarcities.** Immediate action should be taken to address global water scarcities, which many consider to be the “primary constraint to global food production” (Hanjra & Qureshi, 2010, p. 368). Increasing demand for meat products among affluent populations has put extra strain on world water resources, as raising livestock requires much greater quantities of water than grain cultivation (Hanjra & Qureshi). Therefore, it may be ethically necessary, especially in developed countries, to shift consumption habits away from meats and towards grains. Hanjra and Qureshi also recommend using saline or wastewater for irrigation, redirecting water supplies to food insecure areas as well as “addressing the issue of distributional inequity in water and food” (p. 370). They also call for more efficient use of water resources through rainwater harvesting and light irrigation. Likewise, in their documentary, *Blue Gold: World Water Wars*, Achbar et al. (2008) call for aggressive water conservation including an immediate end to the pumping of groundwater. They also recommend generating electricity with small turbines in rivers instead of huge dams, and limiting development in areas to the capacity of the water supply. All of these measures have a role to play in addressing global food insecurity. The real social injustice is that people living in impoverished areas have contributed the least to climate change, but are nonetheless facing the greatest risk (UNDP, 2007).

### **Social**

People who are food insecure require immediate assistance. The United Nations Comprehensive Framework for Action (CFA, 2008) recommends emergency food

assistance, nutrition intervention, and enhanced safety nets for the most vulnerable. The CFA also calls for careful management of malnutrition and related illnesses as well as “free and predictable flow of assistance to countries most in need” (p. 7). According to the CFA, expanded social protection systems and health and nutrition assessments will be necessary, requiring a coordinated response from national governments, the private sector, civil society, and international organizations (de Pee et al., 2010). Nutrition and advocacy programs that target women of childbearing age and children under age two should be prioritized (de Pee et al.). This, they assert, may also include food voucher systems, cash transfer programs, or food supplements. Cohen and Garrett (2010) advocate “emergency food assistance, nutrition interventions and safety nets” (p. 476), while Chunyan et al. (2013) call for income subsidies for the poor in urban areas. The technological innovations described in Kennedy’s (2008) documentary, *Next world – Future superhuman*, could play an important role in helping the poor who are most in need of health interventions. This could help to reduce the technology gap between rich and poor countries. Von Braun (2010) points out that access to such technology “is implicit in the right to food” (p. 452) and that protection of basic food security for the very poor and prevention of health problems and poverty should form an essential part of global policy and research.

### Conclusion

This paper has described some of the causes and effects of global food insecurity and has suggested some potential solutions. Causes of global food insecurity include the water crisis, the global economic crisis, climate change, and increasing urbanization while the effects are both nutritional and non-nutritional. While a complete investigation of the causes and effects of global food insecurity is beyond the scope of this paper, it can be concluded that a multi-dimensional approach, that is both ethical and sustainable, is required. Such an approach needs to address agricultural, technological, economic, environmental, and social issues. Sustainability, “the successful reconciliation of economic development, environmental conservation, and social equity” (Bassett, 2010, p. 5697) is key. The Sustainable Development Commission defines food security as a sustainable system “where the core goal is to feed everyone sustainably, equitably, and healthily; which addresses needs for availability, affordability, and accessibility; which is diverse, ecologically sound and resilient; and which builds the capabilities and skills necessary for future generations” (2009, p. 10). Ultimately, hunger, in an increasingly prosperous world, is unacceptable, and everyone has a moral and ethical duty to work to alleviate it. Religious, educational and research institutions, political bodies, and business enterprises all have a role to play. Smith’s (1976) theory of moral sentiments states that “This is what being human means. This indissoluble bond of common humanity

needs to be affirmed anew in every generation” (as cited in Morgan, 2010).

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