

For Those Who Eat Food: Your Perishable Future¹

John Ikerd²

One of the speakers at a recent conference told a group of young people that they were the first generation of Americans who have to be concerned about their food, whether it is wholesome and nutritious or even safe to eat. This might have been a bit overstated, since the U.S. food systems as late as early 1900s still left a lot to be desired. The Pure Food and Drug Act of 1906 was but the first in a series of government initiatives that eventually would make the American food system one of the best in the world. This speaker was correct in that until fairly recently, most of us could logically assume that whatever we found in supermarkets or restaurants was good for us, or at least was fit to eat. With a grade-school understanding of the USDA Food Pyramid and bit of self-restraint, we could choose a healthy diet. However, today's generation of young people can no longer afford to ignore the obvious problems and growing public concerns about the American food system.

We are told by the “agricultural establishment” our food system is still the envy of the world. This is a standard message of the large food corporations; major farm organizations, such as the American Farm Bureau and commodity groups, and even the USDA and state departments of agriculture. The United States arguably has one of the most highly regulated food systems in the world to ensure food safety. Most Americans can afford any food they want, as on average, we spend less than 10% of our disposable incomes on food. American supermarkets are filled year-round with an abundance and variety of both fresh and processed foods from every corner of the earth. Our food is “quick, convenient, and cheap.” Why should young people, or anyone else, be concerned about the American food system?

This is the so-call success story of American food system. However, a large and growing body of government statistics and scientific evidence tells a very different story. A 2005 New York Times piece, for example, drew widespread public attention to the growing problem of obesity by quoting the authors of an article in the *New England Journal of Medicine*: “Obesity is such that this generation of children could be the first basically in the history of the United States to live less healthful and shorter lives than their parents.”ⁱⁱⁱ Other scientists countered that better health care might continue to extend longevity but admitted that such care would be very costly. Many of America's children today are likely to be very sick for much of their lives, even if they don't die younger than their parents.

Many Americans clearly are eating foods that are destroying their physical health. While the percentage of incomes spent for food has dropped by more than half since the 1950s, the cost of health care has more than doubled.ⁱⁱ Healthcare costs now claim more than 17% of the GDP,

¹ Prepared for presentation at a public lecture on the campus of Luther College, Decorah, IA, May 2, 2013.

² John Ikerd is Professor Emeritus, University of Missouri, Columbia, MO – USA; Author of, *Sustainable Capitalism*, and *Essentials of Economic Sustainability*, <http://www.kpbooks.com>, *A Return to Common Sense*, <http://Amazon.com>, *Small Farms are Real Farms*, Acres USA, <http://www.acresusa.com/other/contact.htm>, *Crisis and Opportunity in American Agriculture*, University of Nebraska Press <http://nebraskapress.unl.edu>; and *A Revolution of the Middle and the Pursuit of Happiness*, online: <http://sites.google.com/site/revolutionofthemiddle/>. Email: JEIkerd@gmail.com; Website: <http://faculty.missouri.edu/ikerdj/> or <http://www.johnikerd.com>.

more than twice as much as the food sector.^{iii iv} For decades, organic food advocates have been calling attention to health problems associated with the widespread use of agricultural chemicals,^{v,vi} growth hormones and antibiotics,^{vii} and more recently, genetically modified or genetically engineered foods.^{viii} The associated health risks include reproductive problems, various forms of cancers, heart disease, attention deficit disorder, and a variety of food allergies. More recently, massive recalls of foods contaminated with E-Coli O157:H7, Salmonella, and various other food-borne pathogens also are fueling growing concerns for food safety.

The eventual tipping point of public concern, however, may well be the growing epidemic of obesity in America. More than two-thirds of adults and nearly one-third of American children and teens are obese or overweight.^{ix} Since 1970, the number of obese adults has doubled, obese adolescents have tripled, and obese children have quadrupled.^x Obesity is not simply a matter of personal inconvenience or embarrassment; it is closely linked to a whole host of diet related diseases, including diabetes, heart disease, hypertension, and several types of cancer.

A 2010 report by the Robert Wood Johnson Foundation, *F As In Fat; How Obesity Threatens America's Future*, documents how the growing prevalence of obesity has continued unabated, in spite of a host of public and private programs mounted to address it.^{xi} Obesity related illnesses alone are projected to claim about one-fifth of the money spent for health care in America by 2020 – erasing virtually all of the gains made in public health over the past several decades.^{xii} The most recent statistics indicated no change in obesity for the latest year, but one year does not mean a change in trend, and obesity is already at very high levels.^{xiii} If overall diet-health trends continue, total healthcare costs will claim more than one-third of total U.S. economic output by the year 2040, and a majority of these costs will likely be diet related. America simply cannot afford the high and rising economic and social costs of unhealthy food.

The so-called food experts tend to blame overconsumption of calories on sedentary lifestyles. However, a compelling indictment of the industrialization of agriculture can be found in a USDA report of food consumption between 1909 and 1999.^{xiv} During the first half of the twentieth century, as people became less physically active, they ate fewer calories, consuming 10% fewer calories per person in the late 1950s than early 1900s, before leveling out in the 1960s. In the early 1970s, total calories in the average American diet began a persistent upward trend, while physical activity obviously continued to decline. Between 1980 and 2004, total daily calories per capita increased by 21% and are now approaching 25% above mid-1900 levels. The logical consequence is the alarming increase in numbers of Americans who are overweight or obese.

Sedentary lifestyles obviously have contributed to obesity, but long-run trends in physical activity don't match the long-run trends in overeating. The human species obviously didn't evolve that much over 100-years, but the food system most certainly did. The overconsumption of calories and the epidemic of obesity most closely parallels with the industrialization of the food system. The industrialization of agriculture began with mechanization in the early 1900s. However, the specialization, standardization, and consolidation of industrialization did not become prominent in American agriculture until the 1970s. The economic efficiencies of large-scale industrial production succeeded in making food “quick, convenient and cheap.” We now see the unintended consequences in foods that are rich in calories and poor in nutrients.^{xv} We have created a nation that is overfed but undernourished – overweight but still hungry.

Ironically, making food cheap has even failed to make food accessible to the poor. A larger percentage of Americans are hungry today than were hungry during the 1960s. USDA statistics, for 2010, placed total “food insecurity” at 15% with more than 20% of American children living in food insecure homes.^{xvi} Without generous government programs, including food stamps, the statistics would be far more dire. This is not just a reflection of the recent recession. The only time significant progress has been made in food insecurity over the past 30 years was during the unsustainable economic boom of the 1990s. Food insecurity looks very different today than during the 1960s. The hungry today are undernourished as well as underfed. People are not hungry because food prices are too high. They are hungry because the food they can afford isn't meeting their basic nutritional needs. The problem is systemic: It's the food system as a whole.

The current epidemic of obesity and other diet/health problems are simply symptoms of a food system that is inherently unsustainable. Sustainability refers to the ability to meet the needs of the present without diminishing opportunity for the future. When we question the sustainability of the American food system – objectively and fairly – we must conclude that it is not meeting the basic food needs of most Americans today, and it most certainly is not leaving equal or better opportunities for those of future generations.

Everything of use to us, including everything of economic value, is ultimately derived from nature by way of society. There is no place to get anything of value except from the earth – air, water, land, energy. Beyond self-sufficiency, we must rely on other people, on society, to meet even our most basic needs. The problem: We are systematically destroying the productivity of our natural and human resources. There is no place else to get anything of use to us, including our food. We have created an unsustainable food system.

We can see the negative ecological impacts of industrial agriculture in the degradation of the soil through cultivation, depletion of water through irrigation, and pollution of water with agricultural chemicals. We can see the negative societal consequences in the demise of the mid-sized, full-time family farms, as the system replaces people with mechanization and agrotechnologies. We see the exploitation of the remaining farmers and farm workers. We also see growing economic inequity with the concentration of wealth among the largest farm operators, non-residential landlords, and corporate agribusiness investors.

Cheap food was made possible by cheap fossil energy – not just fuels for mechanization and transportation but also for fertilizers, pesticides, and other farm inputs. The American food system claims about 20% of all fossil energy used in the U.S. and requires about 10 calories of fossil energy for each calorie of food energy produced. About one-third of this total is accounted for at the farm level. In spite of the current boom in natural gas “fracking,” total fossil energy reserves are being rapidly depleted, which means increasing prices for fertilizers and fuels for the next 50 to 100 years, until the recoverable fossil energy is gone. We simply cannot provide food for a growing global population with a fossil energy dependent agriculture in a world running out of fossil energy.

Young Americans have every reason to be concerned about their food system. It has failed in its most fundamental mission of providing food security. It is degrading and depleting the natural

and human resources upon which its productivity ultimately depends. Today's industrial food system quite simply is not sustainable. Change is no longer an option; it is an absolute necessity.

A sustainable food system of the future cannot be created from some utopian fantasy; it must be rooted in an economic reality. The American food system was guided or coordinated historically by competitive markets. Changes in consumers' food needs, preferences, and incomes were reflected in changing retail food prices. Higher retail prices would ration available supplies and provide profit incentives for retailers, who then provided profit incentives for producers to supply more of the higher priced product. A drop in consumer demand reversed this process. Thus, the food system was coordinated vertically, from consumers to farmers, through competition: *Vertical competition*. The benefits of greater economic efficiency accrued to consumers, not producers. The consumer was “king, or queen.” Farmers were under constant pressure to reduce their costs, even at the expense of their land and communities.

That said, the reality of today's food systems is very different from the competitive, free-market food economy of the past. Only the farming sector retains any element of true economic competition, and even farm-level markets are rapidly disappearing. Today, large corporate processors or retailers, depending on the particular food sector, dominate the entire vertical food supply chain, from retailing to agricultural production. The last vestiges of *vertical competition* are rapidly giving way to *vertical integration*.

With vertical integration, the large corporate food retailers or processors not only dominate markets, they essentially take control of the other levels in the vertical food supply chain, from farming through retailing. They may do so through outright ownership, formal contractual arrangements, strategic alliances, or through sheer market power, as in the case of Walmart and other larger food retailers. In such cases, the corporations that control the vertical food supply chains have the power to extract all excess profits. Corporate stockholders have replaced consumers as the beneficiaries of market efficiencies, leaving others in food supply chains, including farmers, with barely enough profits to survive. Nature and society suffer the inevitable consequences of a system that minimizes economic costs at the expense of nature and society.

The hard, cold economic reality is that the economy provides no incentives to reinvest in renewing the fertility of the land or the productivity of people, unless something of greater economic value is expected in return. Economic value is inherently individualistic and instrumental, a means to an end, and thus places a premium on the present relative to the future. At the very least, an economic return on investment must be expected by an individual within his or her lifetime. In fact, there is no economic incentive to invest in anything for the sole benefit of society in general or for the future of humanity. Most humans don't make purely economic decisions. We care about other people and about nature for non-economic as well as economic reasons. But, the large, publicly-traded food corporations are not humans. They are economic organizations with no human capacity for purely social or ethical value. As a result, food corporations put farmers under relentless economic pressures to exploit their land, their workers, and their neighbors simply to survive economically. Such a food system is not sustainable.

The only sustainable alternative to *vertical integration* and *vertical competition* is *vertical cooperation*. Cooperative relationships are neither competitive nor exploitative, they are

mutually beneficial. Horizontal cooperatives include farmers, *or* distributors, *or* consumers whereas vertical cooperatives include farmers, *and* distributors, *and* consumers. A vertical cooperative is coordinated through cooperation rather than competition or integration. The members together decide what to produce, where and when it will be available, how it will be produced and processed, and who will produce and process it. Economic benefits are shared fairly and equitably among consumers, retailers, processors, farmers, and others involved in the collaboration.

Everyone in a *sustainable* vertically cooperative system receives an economic return adequate to reward them for their contribution to the process without exploiting the natural and human resources that must sustain long run economic viability. They also agree on prices that ensure their consumers get products they need and want at prices they are willing and able to pay. Product alternatives and profits are limited by the need to make non-economic investments, but the system is economically sustainable for all participants. More important, farmers, employees, processors, distributors, consumers, and investors all share in making the social and ethical investments essential for sustainability. The entire system strives for balance and harmony among the economic, social, and ecological essentials of sustainability.

Cooperation in such organizations can be sustained only by shared social and ethical values arising from *personal* relationships among members of cooperative and reflecting a shared *ethical* commitment to the well-being of those of future generations. There will always be an individual economic incentive to extract and exploit, even if doing so leads to disintegration and failure of the cooperative. I routinely advise farmers either form cooperatives with like-minded friends or to make friends of like-minded people with whom they choose to form cooperatives. The legal organizational structure of vertical cooperation doesn't matter. It can be a cooperative, a collaborative, or an alliance, as long as individuals at all levels are willing to cooperate rather than compete or submit to outside corporate control.

These basic concepts and principles of vertical cooperation underlie the organic, biodynamic, holistic, ecological, and other sustainability-driven agricultural movements. Vertical cooperation is also the founding principle of Community Supported Agriculture associations: Farmers and their customers collaborate in deciding what will be produced, what types of shares are available, and how shares are priced. I am not aware of any current vertically cooperative arrangement that meets all of the necessary conditions for sustainability, although I personally know of several organizations in the U.S that possess many of these attributes and are moving in this direction.

Idaho's Bounty is a large, multi-farm CSA in southern Idaho that includes both the customers and farmers in a formal cooperative arrangement.^{xvii} The Food Commons project in California provides the best conceptual blueprint I am aware of for forming and sustaining a vertical cooperative organization.^{xviii} The differences between vertical cooperation and either vertical integration or vertical competition are clearly reflected in their guiding principles. Their core principles include: fairness, sustainability, decentralization, transparency, stewardship, accountability, subsidiarity, reciprocity, and ethics, as well as essential economic principles.

Those who decide to commit their time and energy to fundamental change in their food system will find a large and growing number of allies. The issues of global climate change, fossil

energy depletion, economic globalization, growing social inequity, corporate consolidation of the food system, confinement animal feeding operations (CAFOs), genetically modified organisms (GMOs), as well food safety, health, and nutrition issues are creating a new sustainable/local food movement among people as consumers, taxpayers, and citizens all around the world.

The Slow Food movement, for example, is a worldwide organization with about 100,000 members in over 150 countries. Slow Food's philosophy is defined by three interconnected principles: “Good: a fresh and flavorful seasonal diet that satisfies the senses and is part of our local culture; Clean: food production and consumption that does not harm the environment, animal welfare or our health; Fair: accessible prices for consumers and fair conditions and pay for small-scale producers.”^{xix} *Good, clean, and fair* are becoming the watchwords of the sustainable foods movement.

The movement is growing: Food industry studies indicate that about one-third of American consumers are willing to pay premium prices for healthful, nutritious foods with ecological, social, and economic integrity.^{xx} The sustainable food movement already includes millions of other like-minded good-food advocates and activists scattered across the American continent and continues to grow with each new concern. Fundamental change is not some utopian dream; it is rooted in economic reality.

To create a sustainable food system, we must be willing to make purposeful, intentional decisions that reflect a social and ethical responsibility for each other and for the future of humanity. As far as we know, humans are the only species that has the capacity for thoughtful, intentional decisions. Other species make choices by instinct or learn from experience. Humans, however, have the capacity to make choices that conflict with their most basic animal instincts and can anticipate consequences of actions they have never experienced. If we simply follow our animal instincts, we know the ultimate consequences for humanity. Any non-intentional species that finds itself in a position of dominance within its natural ecosystem blindly expands its population until it uses up the resources that sustains it or dies off from disease or conflict.

We know also that human civilizations of the past have made the same mistakes as other non-thinking species – the same mistakes we are making today. Best-seller books such as *Guns, Germs, and Steel; The Fates of Human Societies*,^{xxi} and *Collapse; How Societies Choose and Fail to Succeed*^{xxii} by Jared Diamond document several vivid examples of past society that were not sustainable. Historical societal collapses are invariably linked to the creation of unsustainable food systems. In the past, there were always emerging societies elsewhere to ensure the future of humanity. Today, however, humans are the dominant species in the entire global ecosystem and humanity is dependent increasingly on a single global food system. If we humans continue to behave like other non-thinking species, we can expect the global food system to collapse and with it human civilization as we know it.

Thankfully, today's young people need not make the same mistakes their elders have made: The mistakes that led past civilizations ecological and social collapse. We need not continue to behave as a non-thinking species. We have been given the uniquely human ability to learn from ancient history and to anticipate consequences of actions never before experienced by humanity. It makes no sense for us to be given this ability if we were not meant to use it. We don't have to

wait to learn from our own mistakes. We know that today's corporately controlled, industrial food system is not sustainable.

We have the uniquely human capacity to realign our priorities based on our evolving understanding of how the world works and where we humans fit within it. We know now that we are a part of the world, not apart from the world. We know our economy is a part of society and must evolve to meet the needs of people rather than force people to accommodate the needs of their economies. We know that everything of economic value ultimately must come from nature by way of society, and thus, the long-run needs of nature and society must take priority over the short-run economic preferences of individuals.

Thankfully, investments in nature and society are investments in human happiness. As our common sense informs us and a host of socioeconomic studies confirm, beyond some very modest level, human happiness depends far more on the quality of social relationships and a sense of purpose and meaning in life than on additional income or wealth.^{xxiii} In fact, the economic, social, and ecological dimensions of sustainability are identical to the individual, social, and ethical dimensions of human happiness. A sustainable lifestyle is a life of happiness.

Certainly, we human are material beings and need the economic essentials of life: We need food, clothing, shelter, health care, rest, recreation, and such. But, we are also are social beings: We need to care and be cared for, to love and be loved. We are also ethical or moral beings. We need the sense of purpose and meaning in life: We need the sense of responsibility associated with caring for the others and caring for the earth, even when there is no economic incentive to do so. Fortunately, stewardship of society and nature is a natural and normal aspect of being *fully* human.

Finally, we humans are biological beings and our food systems will always be perishable. Thus, the future of humanity likewise will always be perishable. The things of nature and society that sustain us must always be protected, preserved, renewed – generation after generation. The quest for sustainability is an ongoing challenge but also an ongoing opportunity. There are no logical limits to the social and ethical betterment of humanity. In confronting the challenge to create a new, sustainable food system, the young people of today have an opportunity to create a new and better world for themselves and for the future of humanity. In the process of creating and nurturing a sustainable food system, they have an opportunity to create and nurture a fundamentally better way of life.

End Notes

ⁱ Pam Belluck, “Children's Life Expectancy Being Cut Short by Obesity,” *New York Times*, March 17, 2005.

ⁱⁱ The 20th Century Transformation of U.S. Agriculture and Farm Policy, USDA, Economic Research Service, www.ers.usda.gov/publications/eib3/eib3.htm .

ⁱⁱⁱ Center for Medical and Health Services, *NHE Fact Sheet*, http://www.cms.gov/NationalHealthExpendData/25_NHE_Fact_Sheet.asp .

^{iv} The 20th Century Transformation of U.S. Agriculture and Farm Policy, USDA, Economic Research Service, www.ers.usda.gov/publications/eib3/eib3.htm .

^v For a list of references, see *The Issue of Pesticides, Sustainable Table, Serving up healthy food choices*, <http://www.sustainabletable.org/issues/pesticides/> .

^{vi} Fred Vomsaal, Programmed for obesity: early exposure to common chemicals can permanently alter metabolic system, *Research and the Arts*, University of Missouri, <http://rcp.missouri.edu/articles/vomsaal-obesity.html> .

^{vii} *Smart Guide, Hormones in the Food system*, Institute for Agriculture and Trade Policy, Food and Health Program, <http://www.iatp.org/iatp/publications.cfm?accountID=421&refID=106678> .

^{viii} Jeffery Smith, “Doctors Warn: Avoid Genetically Modified Foods,” Institute for Responsible Technology, <http://www.responsibletechnology.org/gmo-dangers/health-risks/articles-about-risks-by-jeffrey-smith/Doctors-Warn-Avoid-Genetically-Modified-Food-May-2009> .

^{ix} National Center for Health Statistics. “Prevalence of Overweight, Obesity and Extreme Obesity among Adults: United States, Trends 1960-62 through 2005-2006.” *NCHS E-Stats*, December 2008. http://www.cdc.gov/nchs/data/hestat/overweight/overweight_adult.htm .

^x Ogden CL, Carroll MD, and Flegal KM. “High Body Mass Index for Age among U.S. Children and Adolescents, 2003-2006.” *Journal of the American Medical Association*, 299(20): 2401-2405, 2008.

^{xi} Robert Wood Johnson Foundation, *F As In Fat; How Obesity Threatens America's Future*, http://www.pbhfoundation.org/pbh_direct_new/jul09_2010/Obesity2010Report.pdf .

^{xii} Cost of Treatment For Obesity-Related Medical Problems Growing Dramatically, *Rand Corporation*, [Http://Www.Rand.Org/News/Press.04/03.09.Html](http://www.rand.org/news/press/04/03.09.html) .

^{xiii} Reuters, “U.S. obesity leveling off; but at high rate,”

<http://www.reuters.com/article/2013/08/16/us-usa-obesity-idUSBRE97F0QI20130816>

^{xiv} USDA Major Trends in U.S. Food Supply, USDA, Economic Research Service, *Food Review*, Volume 3, No. 1, April, 2000.

^{xv} For Example: Donald Davis, Melvin Epp, and Hugh Riordan, 2004, “Changes in USDA Food Composition Data for 43 Garden Crops, 1950 to 1999” *Journal of American College of Nutrition*, 23:669-682. Bob Smith, 1993, Organic Foods vs. Supermarket Foods: Element Levels, *Journal of Applied Nutrition*, 45:35-39. WM Jarrell and RB Beverly, 1981, “The Dilution Effect in Plant Nutrient Studies,” *Advances in Agronomy*, 34:197–224.

^{xvi} USDA, Household Food Security in the U.S., ERS, Economic Research Report No 125, Sept. 2011. <http://www.ers.usda.gov/Publications/ERR125/ERR125.pdf>

^{xvii} Idaho's Bounty, <http://www.idahobounty.org/>

^{xviii} The Food Commons: Imagine, Design, and Build < <http://www.thefoodcommons.org/>>

^{xix} Slow Food International, <http://www.slowfood.com/international/2/our-philosophy>

^{xx} Allison Wortington, *Sustainability, the Rise of Consumer Responsibility*, The Hartman Group, Bellevue, WA, Spring, 2009. <http://www.hartman-group.com/publications/view/81> .

^{xxi} Jared Diamond, *Guns, Germs, and Steel; The Fate of Human Societies*, (New York: W.W. Norton Co., 1999).

^{xxii} Jared Diamond, *Collapse; How Societies Choose to Fail or Succeed*, (New York: Penguin Books, 2005).

^{xxiii} Ed Diener and Martin EP. Seligman, “Beyond Money, Toward an Economy of Well-Being,” *Psychological Science in the Public Interest*, 5 (1), 2004, 1–31.

^{xxiiii} For a bibliography of happiness research, visit *the Positive Psychology Center*, University of Pennsylvania, <http://www.ppc.sas.upenn.edu/positivepsychologyresearch.htm> .