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HEALTHY LAND, HEALTHY PEOPLE:
BUILDING A BETTER UNDERSTANDING OF SUSTAINABLE FOOD
SYSTEMS FOR FOOD AND NUTRITION PROFESSIONALS



A PRIMER ON SUSTAINABLE FOOD SYSTEMS AND EMERGING ROLES
FOR FOOD AND NUTRITION PROFESSIONALS

American Dietetic Association Sustainable Food System Task Force

March 16, 2007

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Executive Summary

Sustainable Food System Task Force Charge

The American Dietetic Association (ADA) House of Delegates (HOD) conducted a dialogue on October 21, 2005 to identify the role of ADA members in supporting a sustainable food supply¹ that is healthful and safe.² From the pre-meeting and meeting dialogues it was noted there was a need to increase ADA members' awareness of sustainable food systems and encourage ADA members to assume leadership roles in the area of sustainable food systems. Following the dialogue, a motion was adopted on November 30, 2005 to appoint a Sustainable Food Systems Task Force. The House of Delegates' dialogue on a sustainable food supply³ confirmed the need to define the role of ADA members as it relates to food and nutrition practice, therefore, the Task Force will:

1. Develop a Primer to increase member awareness of sustainable food systems practices and emerging roles for food and nutrition professionals in this area of practice. The Primer will include: 1) a definition of sustainability as it pertains to "sustainable practices" and "sustainable food systems," 2) educational opportunities for members via existing communications venues about current food systems and the relationship between sustainable food systems and support of local markets, 3) opportunities to encourage ADA members to assume leadership roles in the area of sustainable food systems, 4) opportunities to promote partnerships and collaborations with local and state agencies and organizations, 5) scenarios of how sustainable food system principles have been applied to areas of practice, and 6) a glossary and recommendations for further reading.
2. The Primer will utilize the applications identified by the HOD to promote, support and educate food and nutrition professionals about principles of sustainable food systems. The plan will take into account member's personal needs and practice settings along with potential opportunities for ADA organizational units to assist.



¹ The Sustainable Food System Task Force expanded the charge beyond food supply to sustainable food systems to better capture the complexities and interconnectedness of the sectors of the food system.

² The executive summary and the background on the role of the dietetics professional in supporting a sustainable food supply that is healthful and safe can be found on the ADA web site at http://www.eatright.org:80/cps/rde/xchg/ada/hs.xsl/governance_1166_ENU_HTML.htm.

³ Ibid.

Accomplishments of the Task Force

The Task Force conducted conference calls on February 10, March 10, April 7, May 5, June 7, September 6, November 13, December 13, 2006, January 18, 2007 and February 21, 2007. Teams were formed to develop each section of the Primer. As a result of the conference calls and team meetings, the Task Force developed:

- A definition and conceptual diagrams of sustainability as it pertains to “sustainable practices” and “sustainable food systems” for the food and nutrition professional.
- Identified educational opportunities for members via existing communications venues about sustainable food practices and systems.
- Identified opportunities to link emerging roles for food and nutrition professionals with principles of sustainable practice.
- Identified opportunities to promote partnerships and collaboration with local and state agencies and organizations.

The final product of the Task Force was the document titled *Healthy Land, Healthy People: Building a Better Understanding of Sustainable Food Systems for Food and Nutrition Professionals*. The Task Force was charged with facilitating a training session for the ADA House of Delegates on March 16, 2007. The objective of the session was to provide tools to Delegates who in turn will be able to provide ADA members with information regarding sustainable food systems and encourage members to assume leadership roles in the many areas of sustainable food systems.



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Introduction

Sustainable Food Systems for Health—Why Does This Matter?

Sustainability means being capable of being maintained over the long term in order to meet the needs of the present without jeopardizing the ability of future generations to meet their needs (1). The American Dietetic Association (ADA) has identified sustainable food systems⁴ as a priority in their commitment to helping individuals enjoy healthy lives. This initiative ushers the ADA into the forefront of one of the five critical health areas facing all Americans - a safe, sustainable and nutritious food supply. Attitudes about food are changing as evidenced by the growing number of farmers' markets, food cooperatives, community supported farms and the continued rise in demand for locally-grown and organically-produced foods. Additionally, clients and customers have questions and concerns about genetic engineering, pesticides, food borne illness, use of hormones and antibiotics with livestock, and the consolidation of food manufacturing. How food is produced, processed, distributed and consumed are constantly evolving and are influenced by a multitude of factors, many that may be detrimental to the health of individuals, families, communities and that of future generations.

Sustainability means capable of being maintained over the long term in order to meet the needs of the present without jeopardizing the ability of future generations to meet their needs.

According to an environmental scan of the dietetics profession conducted in 2002, the ADA and its members face many strategic challenges including concerns about the global food system, such as sustainability and fair trade; technological, social, political and environmental influences that shape the U.S. food system; and a greater expectation that food and nutrition professionals remain knowledgeable of the relevant science and technology of agriculture, food and health (2).

Food system sustainability is critical for ensuring a future food supply that protects both human and environmental health.

ADA and food and nutrition professionals must continue to be respected sources of evidence-based information regarding food and nutrition, and understanding the dynamics of food systems and issues related to sustainability is imperative (2). *Food system sustainability is critical for ensuring a future food supply that protects both human and environmental health.*

⁴ A glossary of terms is found in Section VII.
American Dietetic Association

Guiding Principles of the Task Force

The Sustainable Food Systems Task Force believes that everyone should have access to nutritious, safe and sustainably produced foods at all times to support an active and healthy life. Additionally, the Task Force believes it is the social responsibility of food and nutrition professionals to play a significant role in that assurance and to integrate sustainable principles into their practices. These core beliefs are in accordance with ADA values and served as guiding principles in the development of this Primer. The following ADA values shape dietetic practice and provide a framework to help members promote sustainable food systems that assure healthy food options for all individuals including:

| | |
|------------------------------|--|
| <i>Customer Focus</i> | Operates with consideration for the needs and expectations of internal and external customers |
| <i>Integrity</i> | Acts ethically, with accountability and attention to excellence |
| <i>Innovation</i> | Fosters an environment of positive change through creativity and continuous improvement |
| <i>Life-Long Learning</i> | Takes personal accountability for own competence and seeks opportunities for continued learning |
| <i>Collaboration</i> | Promotes open dialogue, cooperation and the sharing of knowledge |
| <i>Inclusivity</i> | Demonstrates respect and sensitivity toward and appreciation for, the backgrounds, differences, and points of view of others |
| <i>Social Responsibility</i> | Guides decisions and actions by considering economic, environmental and social implications |

Limitations of the Primer

The Sustainable Food Systems Task Force has developed this Primer as a tool for food and nutrition professionals to increase their understanding of sustainable food systems and to support a proactive role in the development and maintenance of sustainable food systems. The Task Force recognizes that sustainable food systems are an emerging area of science. Nutrition is also an emerging and ever-evolving area of science, yet food and nutrition professionals do not hesitate to make recommendations about what people should eat. We can ill-afford to neglect the connection between how food is produced, processed and procured and the impact on nutrition and health. Food and nutrition professionals are encouraged to use existing literature and to advocate for further research. This Primer is not exhaustive, but the Task Force hopes it is the springboard for new and innovative sustainability initiatives led by food and nutrition professionals.

An Historical Perspective

Historical environmentalism serves as the predecessor of today's sustainability movement. There were naturalists such as Emerson and Thoreau in the 1800s followed by conservation movements in the early 1900s. In 1962, it was Rachel Carson's, *Silent Spring* that sparked a transition to environmental ecology and the first Earth Day celebration in 1970. As the issues evolved, the United Nations created the World Commission of Environment and Development in 1987 that released the Brundtland Report, *Our Common Future*. The Brundtland report defined sustainable development as, "development that meets the needs of the present without compromising the ability of future generations to meet their own needs." The report further defined sustainability in terms of economic and social justice by establishing the fundamental framework of ecology, economy and equity. These are the three core principles that guide the sustainable agriculture and sustainable food systems movement today.

This laid the foundation for the 1992 Earth Summit convened by the United Nations in Rio de Janeiro, Brazil where world leaders agreed to the Rio Declaration. This became the blue print for global partnerships and the establishment of the Commission on Sustainable Development. The summit was the birthplace of the "Precautionary Principle" which challenged all business to consider their responsibility to society as they do business. Finally, as the focus of sustainable development moved into natural resources and business niches, the Asilomar Declaration for Sustainable Agriculture made its entry with a recommendation for an American agriculture policy shift from industrial to sustainable agriculture. The Asilomar Declaration identified seven challenges to be addressed by agriculture policy: 1) promote and sustain healthy rural communities; 2) expand opportunities for new and existing farmers to prosper using sustainable systems; 3) inspire the public to value safe and healthy food; 4) foster an ethic of land stewardship and humaneness in the treatment of farm animals; 5) expand knowledge access to information about sustainable agriculture; 6) reform the relationship among government, industry and agriculture; and 7) define the role of U.S. agriculture in the global community.

The Precautionary Principle states that precautionary measures should be taken when an activity raises threats of harm to human or environmental health, even when cause and effect relationships have not been fully established scientifically.

A Snapshot of the U.S. Food System

National health and farm crises are influencing local, state and federal food and agriculture policies. As health care costs and diet-related chronic diseases rise, government, industry and health care institutions are seeking comprehensive and collaborative approaches to reversing these epidemics. For example, federal agriculture policies will extend beyond farm and food assistance programs to obesity research and energy alternatives. Currently, a large-scale food scare or energy crises would radically restructure the food system. Supporting sustainable principles that build and strengthen community-based food

systems will enable food and nutrition professionals to better respond to food system threats such as avian flu, *E. coli* contamination, unintentional spread of genetically modified seeds, mad cow disease, cloned animals, pharma-crops and agroterrorism, or a deliberate attack on the U.S. food supply. The following trends frame some of the many complex influences within the food system.

Population Trends

- According to the U.S. Census, it is anticipated that the number of older people will peak between 2010 and 2030 as Baby Boomers turn 65 years of age. The older population in 2030 is projected to be twice as large compared to 2000, growing from 35 million to 72 million, representing nearly 20% of the total U.S. population (3).
- The population in metropolitan areas in the U.S. is increasing as the population in rural areas continues to decline (4). U.S. metro areas (population > 50,000) contain 83% of the U.S. population and extends across 20% of the land area (5). Between 2000 and 2005, population growth in the Midwest resulted entirely from international migration. In addition, international migration contributed between 18 and 28 percent of total nonmetropolitan population growth for the West, South, and Northeast (6).
- World population continues to increase. In 2006, the world population reached 6.6 billion people, up from 6 billion in 1999. The Population Reference Bureau projects there will be 8 billion people by 2025 with 90% of that growth in developing countries (7).

Agriculture Trends

- Agriculture is the foundation of the food system. Healthy soils produce healthy plants that feed healthy animals. Healthy food is the most basic need for human survival, health and social stability (8).
- Current U.S. agriculture does not meet the nutritional needs of individuals. If everyone were to eat the recommended servings of foods according to the Dietary Guidelines for Americans, there would need to be an additional 7.6 million acres for fruit production, 6.5 million additional acres for vegetable production and an additional 111 billion pounds of milk per year (9).
- The number of farms and the number of acres involved in agriculture production continue to decrease. In 1960 there were almost 4 million farms operating on 1.2 billion acres. In 2005, there were 2.1 million farms operating on 900 million acres (10).

- According to the U.S. Department of Agriculture (USDA), more than 4.0 million acres of farmland, 2.3 million acres of cropland and 1.7 million acres of rangeland were certified as organic in 2005. California leads in certified organic cropland, with over 220,000 acres, mostly for fruit and vegetable production (11).
- The U.S. imports almost as much food as it exports. The USDA reported that agriculture imports rose 2% in 2006 to \$59.8 billion, most of the increase came from fruits, vegetables and vegetable imports. Agriculture exports, primarily corn, soybeans and meat, rose to a record \$64.4 billion in 2006, 12% higher than in 2005 (12).
- Throughout the 20th century, the global average temperature rose by about 0.5 degrees Celsius and most of the high temperature records were concentrated in the 1990s. There is strong evidence that links human-induced greenhouse gas emissions contribute towards this “global warming” and could result in increased rainfall and rising ocean temperature creating a profound affect on agriculture and the future food supply (13).
- Each year, about 25 million pounds of antibiotics are given to livestock for non-therapeutic purposes. This is eight times more than prescribed to humans to treat disease (14). Antibiotics are used with poultry, hogs and cattle that are raised in confinement facilities in an effort to control the spread of disease and to promote growth by forcing animals to grow at a faster rate in a shorter period of time (15). The Food and Drug Administration states the use of antibiotics in livestock can cause microbes to become resistant to drugs used to treat human illness, making some human illnesses harder to treat (16).
- More than 675 million pounds of pesticides were applied to crops in 2002 (17). Human exposure to pesticides can come through direct exposure by farm workers and farmers, residue in food (on or in fruits and vegetables or in meat such as fish and livestock), contaminated drinking water or in the air we breathe. Because pesticides bioaccumulate higher up on the food chain, food such as meat, milk, cheese and eggs increases exposure to pesticides as they accumulate in fat cells (18).

Processing and Distribution

- The global food system is a complex network of services that transforms and moves food from farms to consumers and is heavily dependent on non-renewable resources such as petroleum. Food products often travel an average of 1500 to 2300 miles (19), while locally-grown foods travel an average of 57 miles (20).
- Transportation costs for commodities are affected by higher energy prices. The rising cost of diesel fuel affects the domestic grains markets, where trucking is the primary shipping mode (6).

- More consumers have access to farmers' markets. The number of farmers' markets in the U.S. continues to increase with 4,385 markets in 2006, an 18.32% increase since 2005 (21).
- U.S. and international agricultural, manufacturing and retail markets are very concentrated. For example, five corporations provide the majority of the commercially available seed in the world with two of those companies controlling 60% of the U.S. corn and soybean seed market; three companies trade most of the grain that moves between countries; four companies control almost 85% of the beef packing industry; eight companies control more than 50% of the poultry market; and two companies produce more than 60% of the fluid milk (22).

Food Access/Retailing

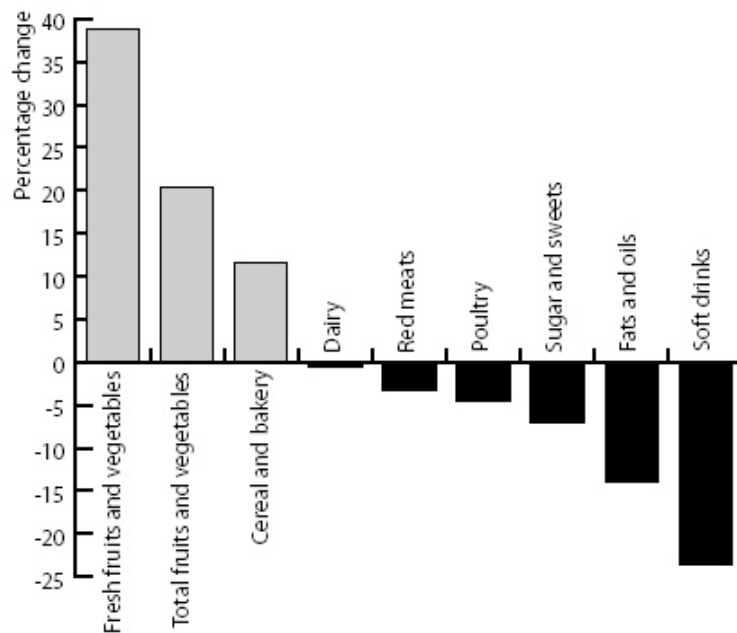
- According to the USDA Economic Research Service, the food retailing industry in the U.S. has undergone "unprecedented consolidation and structural change through mergers, acquisitions, divestitures, internal growth and new competition (23)." As horizontal and vertical integration and consolidation occurs within the global food system, the balance of power has shifted to food retailers and the smaller entities within the food system are being pushed out (24).
- Five supermarket chains reported almost \$200 billion in grocery sales which accounts for 46% of all supermarket sales in the U.S. (22). Wal-Mart is the largest food retailer in the world with \$288 billion in revenue in 2004 (25).
- In 2005, more than \$7.3 billion was spent in the U.S. for advertising and marketing of food, beverages and candy (26). In 2002, the USDA spent less than \$475 million on nutrition education (27).
- Food deserts are emerging as supermarkets close in urban and center cities and rural communities, and convenience stores and fast food restaurants become the only accessible outlets for food. Individuals are traveling further to access healthy food. A direct relationship exists between distance to the nearest supermarket and rates of poor nutrition, diet-related chronic disease and mortality (28, 29, 30, 31).

Health and Consumption Trends

- According to the 2003–2004 National Health and Nutrition Examination Survey (NHANES), 66% of adults were either overweight or obese (32). The percentage of children and teens who are overweight has tripled since 1980. Among children and teens ages 6–19 years, 16% (over 9 million young people) were considered overweight (33). The number of adults diagnosed with diabetes has increased from 4.9% in 1990 to 6.7% in 2002. Over 24% of adults reported no leisure time physical activity in the past month. Almost 80% of adults do not eat five or more servings of fruits and vegetables per day (33).

- The public health costs related to the current food system are astronomical. National medical expenses attributed to overweight (BMI 25–29.9) and obesity (BMI greater than 30) accounted for more than 9% of total U.S. medical expenditures in 1998 and may have reached as high as \$78.5 billion (\$92.6 billion in 2002 dollars). It is estimated that half of these costs were paid by Medicaid and Medicare (34).

- A high quality diet is associated with lower energy intakes and includes a high proportion of fruits and vegetables and foods high in micronutrients and water (35). Refined sugars (e.g., high fructose corn syrup), grains and added fats are subsidized agricultural products which enables food manufacturers to produce inexpensive food products. This creates an inverse relationship between the energy density of foods (kilocalories per gram) and energy cost (dollars per kilocalorie) resulting in diets based on refined grains, added sugars, and added fats that are cheaper than a diet based on fresh fruits and vegetables, lean meats and fish (36).



Source: USDA ERS FoodReview, Vol. 25, Issue 3. Converted to real dollars.

Figure 1. Change in food prices, 1985-2000 (real dollars) (37)

- According to recent consumption reports, Americans are eating 523 more calories per day (38) and are consuming 1000% more refined sugars such as high fructose corn syrup since 1970 (39). This is a result of marketplace portions being two to eight times bigger than a standard serving size and larger food sizes promoted as a “value” to consumers (40), further contributing to the obesity epidemic (41).
- In 2005, 11% of U.S. households were food insecure, or lacked regular access to safe and nutritious foods to support an active and healthy lifestyle. Almost 4% of households experienced very low food security (formerly hungry) in which eating patterns of one or more household members had reduced food intakes during the year because the household lacked money and other resources for food (42).

- Consumers want to purchase products that support their values, such as health, environment, social justice, personal development and sustainable living. Purchasing locally-produced food provides a direct link to their community and consumers want to know who produces their food. Approximately 30% of U.S. adults fall into this new class of consumers called lifestyles of health and sustainability (LOHAS) consumers. LOHAS consumers use these values to guide their purchasing decisions and they expect the corporations they buy from to also have the same values (43).
- Organic food sales have been increasing almost 20% each year for the last decade and are growing eight times faster than the grocery sector as a whole and are expected to hit \$32.3 billion by 2009 (44).
- More than 40% of consumers are users of organic foods on a regular basis (45). Fifty percent of consumers said that locally-grown affected their purchases and they are willing to pay more for foods raised nearby (45). In both quantitative and qualitative research, one of the strongest concerns expressed by consumers compared to five years ago is the impact of additional hormones in food products and their effect on children's health (46).

Waste Management

- Hospitals produce more than two million tons of waste each year. This equates to 45 pounds of waste per bed per day in the form of general trash, infectious (red bag) waste, hazardous waste, and low-level radioactive waste. According to the EPA, more than 90% of infectious medical waste is incinerated but because of the high emissions such as mercury and dioxins, new technologies are being investigated (47).
- Consumers produce 180 millions tons of waste each year; 13.2 million tons are food scraps. Paper accounts for more than 40% of consumer waste (48).

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Section I. What are Sustainable Food Systems?

What is a Food System?

A food system⁵ is comprised of all of the entities and activities related to our food supply including agricultural production, food processing, distribution, retail and consumption (1, 2, 3). Food system experts describe the food and nutrition system as the transformation of raw materials into foods, these foods are consumed and their nutrients influence health outcomes, within biophysical and sociocultural contexts (3). For example, our food system includes water, gardening, agriculture, hunting, home canning, food safety, fast food restaurants, fad diets, the grocery store clerk, food banks, preparing dinner, refuse collection, and obesity. These entities and activities can be grouped into five food system “sectors.” The sectors of the food system include: 1) production, 2) transformation (processing, packaging, labeling), 3) distribution (wholesaling, storage, transportation), 4) access (retailing, institutional food service, and emergency food programs), and 5) consumption (preparation and waste management). (Figure 2). These food system sectors are interconnected; that is, actions in one sector create consequences in other sectors.

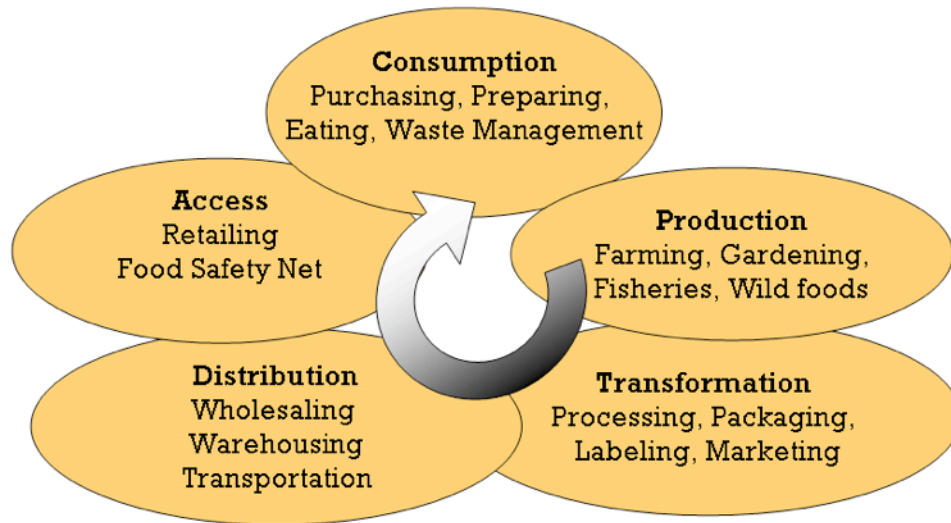


Figure 2. The Food System Sectors (4)

⁵ A glossary of terms is found in Section VII.
American Dietetic Association

What are Sustainable Food Systems?

Sustainability is the capacity of being maintained into the foreseeable future while meeting the needs of the present without compromising the ability to meet the needs of future generations. Sustainability is built on the foundation of human, natural and economic resources (Figure 3). Each of the food system sectors depends on these resources or “inputs.” The functionality of the food system is influenced by socio-cultural trends and values; economic factors; local, state, federal and international policies; research and education; and technological advances. Outcomes of the food system impact the viability and stability of each of the food system sectors as well as natural resources and the health of individuals, communities and populations.

Therefore, sustainable food systems are ecologically sound, socially acceptable, and economically viable. For the food system to be ecologically sound, inputs must be used in ways that conserve, regenerate or enhance natural resources. Social sustainability in the food system suggests that the distribution of resources is equitable; people working in the food system are treated justly; foods that are produced benefit human health, are culturally acceptable, and economically and geographically accessible for all people; and the system functions with regard for future generations.

A sustainable food system exists when production, processing, distribution, and consumption are integrated and related practices regenerate rather than degrade natural resources, are socially just and accessible, and supports the development of local communities and economies.

A food system that is economically sustainable requires that each sector provide livelihoods that support families, that local food system activities contribute to economic development, and that no one entity holds a disproportionate share of economic control over food production, transformation, distribution, access, or consumption.

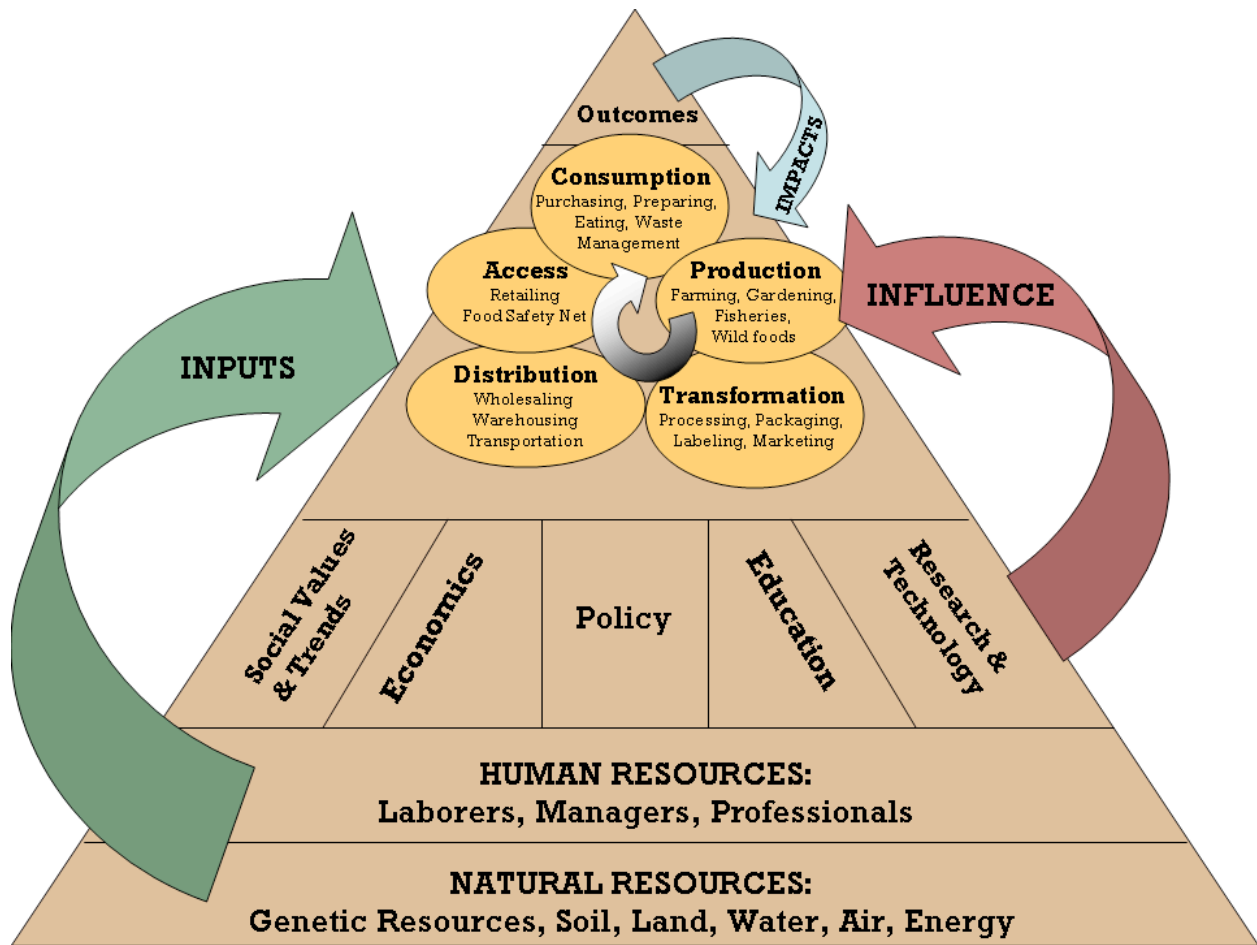


Figure 3. Sustainable Food Systems Model⁶

⁶ The Sustainable Food System Model was created by Alison Harmon, PhD, RD in collaboration with the ADA Sustainable Food System Task Force. American Dietetic Association Sustainable Food System Task Force Report

Food and Nutrition Professionals Role in Supporting Sustainable Food Systems

Food and nutrition experts are a critical cornerstone to the food system foundation. Not only can food and nutrition professionals promote sustainable diets that consist of foods that contribute to human health, there are numerous opportunities to support local agriculture, conserve natural resources, minimize solid waste, and promote ecological sustainability through the variety of roles they serve in the food system (Figure 4). For example, food and nutrition professionals working in:⁷

- Clinical and public health arenas are key players in the consumption sector and have the potential to influence patient and client food choices by shaping how people think, behave, choices they make and their level of engagement in food system changes.
- Food service operations in hospitals, schools, restaurants and other facilities have an important role in the food distribution, access and consumption sectors by procuring, preparing, and serving large quantities of sustainably-produced foods. In addition, food service operators can significantly impact waste management strategies in their institutions.
- Food companies are influential in the transformation, distribution and access sectors by focusing on sustainable product development, energy efficient transportation and donating fresh and nutritious products to food banks or food pantries.
- Dietetic education can incorporate sustainable food system concepts into dietetic curriculum, internships and research agendas.
- Government and public policy can advocate for policies that support sustainable practices in all sectors of the food system such as the Farm Security and Rural Investment Act, better known as the Farm Bill.

Jennifer Wilkins, PhD, RD, a Kellogg Food and Society Fellow and Director of Cornell University Farm to School Program, coined the term “civic dietetics” to reflect the promotion of a sustainable, just, economically viable, community-based food system through the professional practice in community nutrition, education, research, consulting and clinical nutrition (5). This may include, but is not limited to:

- Using expertise to evaluate foods based on their contribution to health and to sustainability.
- Using expertise to critically assess developments in agriculture and the food system.
- Assuming that the inclusion of environmental, social, economic and justice issues are legitimate to dietetic practice.

⁷ A more extensive list of opportunities to support sustainable food systems are found in Sections III and IV.
American Dietetic Association

- Providing leadership in the development of “attribute labeling” such as shade-grown, humanely-raised, pasture-raised, free-range, dolphin-safe, ecological, etc.

One of the best ways to embrace sustainable food systems is by being a role model. Make connections with local farmers, learn about seasonal foods, visit farmers’ markets or food co-ops and engage in food policy discussions. Making these connections as individuals and then as professionals are the first steps in assuring that future generations will have access to safe and nutritious food for a healthy lifestyle.

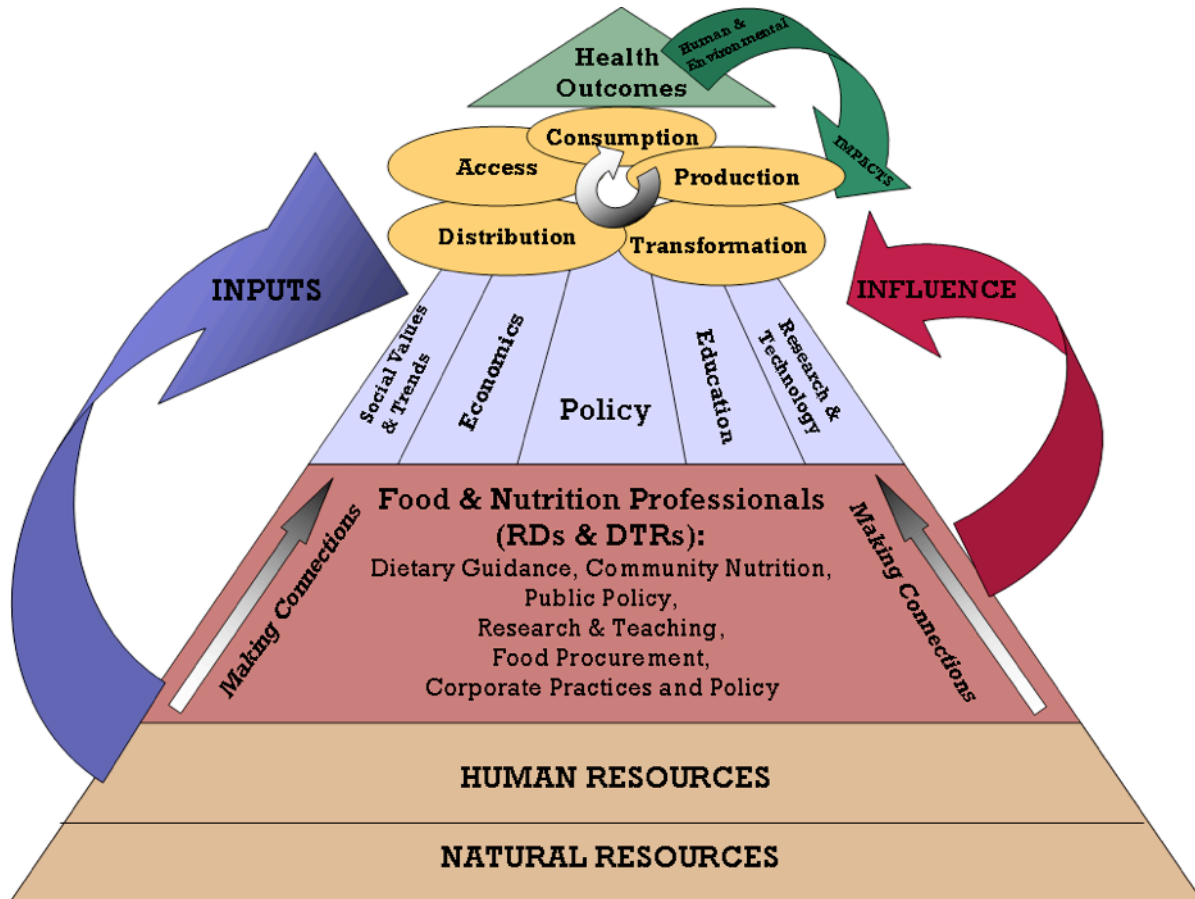


Figure 4. Sustainable Food Systems: Emerging Roles for Food and Nutrition Professionals⁸

⁸ The Sustainable Food System Model was created by Alison Harmon, PhD, RD in collaboration with the ADA Sustainable Food System Task Force. American Dietetic Association Sustainable Food System Task Force Report

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Section II. Educational Opportunities for Food and Nutrition Professionals within ADA

With the growing public and professional interest in local, seasonal, organic and sustainably produced foods, food and nutrition professionals must strengthen their knowledge of sustainable food systems in order to provide the most accurate information to patients, clients and consumers. Historically, continuing education units related to sustainable food systems offered within ADA have been limited, however, vast learning opportunities exist and are waiting to be tapped.

To build this repertoire in sustainable food systems, the following educational opportunities must be in place: continuing professional education units (CPEU) offered through articles in the *Journal of the American Dietetic Association*; sessions at the annual Food and Nutrition Conference and Expo (FNCE); Web resources including a sustainable food systems toolkit; and a speakers' bureau available for dietetic practice groups (DPG) and affiliates.

The following table identifies educational opportunities that could be offered through ADA for food and nutrition professionals to grow their knowledge of sustainable food systems, including the groups and resources needed to develop those activities. Additional information on sustainable food systems may be obtained from other organizations and professional associations listed in Section V.

| VENUE | ACTION NEEDED | EXECUTION RESPONSIBILITY | RESOURCES NEEDED |
|---|--|--|--|
| <p>Attend and Learn</p> <p>FNCE programming</p> <p>Pre- or post-FNCE workshops</p> <p>Affiliate conferences</p> <p>DPG meetings</p> <p>Certificate in Sustainable Food Systems</p> | <p>Identify speaker opportunities and hot topic areas.</p> <p>Develop electronic communications with identified speakers and hot topics to be sent to state and DPG leadership for conference planning.</p> <p>Monitor programs to identify future opportunities.</p> <p>Develop a Certificate in Sustainable Food Systems curriculum.</p> | <p>ADA Sustainable Food System Task Force</p> <p>ADA FNCE Program Planning Committee</p> <p>ADA Center for Professional Development</p> <p>Primary DPGs including, but not limited to:</p> <ul style="list-style-type: none"> • Food and Culinary Professionals • Hunger and Environmental Nutrition • Public Health/Community Nutrition • Vegetarian Nutrition <p>State affiliates conference planning committees</p> | <p>Funding for FNCE speakers and/or pre- or post workshops.</p> <p>Speaker list to be shared with DPGs and affiliates.</p> <p>Funding to support the development of a Certificate in Sustainable Food Systems curriculum.</p> <p>ADA, DPG and affiliate staff and/or volunteer time.</p> |

| VENUE | ACTION NEEDED | EXECUTION RESPONSIBILITY | RESOURCES NEEDED |
|---|---|---|---|
| <p>Listen and Learn</p> <p>Teleconferences</p> <p>Audio CDs including those from FNCE sessions</p> | <p>Identify existing sustainable food systems topics available on CD for CPEUs.</p> <p>Develop and implement teleconferences on sustainable food systems.</p> | <p>ADA Sustainable Food System Task Force</p> <p>ADA FNCE Program Planning Committee</p> <p>ADA Center for Professional Development</p> <p>Primary DPGs, including but not limited to:</p> <ul style="list-style-type: none"> • Food and Culinary Professionals • Hunger and Environmental Nutrition • Public Health/Community Nutrition • Vegetarian Nutrition | <p>Funding for FNCE speakers and/or pre- or post workshops.</p> <p>Funding for teleconferences.</p> <p>ADA and DPG staff and/or volunteer time.</p> |

| VENUE | ACTION NEEDED | EXECUTION RESPONSIBILITY | RESOURCES NEEDED |
|---|---|--|---|
| <p>Read and Learn</p> <p><i>Journal of the American Dietetic Association</i></p> <p><i>ADA Times</i></p> <p>DPG newsletters</p> <p>Affiliate newsletters</p> | <p>Identify potential authors.</p> <p>Submit proposal for ADA position statement.</p> <p>Develop feature piece for the <i>ADA Times</i> highlighting ADA members implementing sustainable food systems strategies.</p> <p>Identify sustainable food systems reference materials for the ADA bookstore.</p> <p>Link ADA members to the <i>Journal of Hunger & Environmental Nutrition</i>.</p> <p>Link ADA members to DPGs that offer information on sustainable food systems.</p> | <p><i>Journal of the American Dietetic Association</i> editorial staff</p> <p>Association Positions Committee</p> <p><i>ADA Times</i> editorial staff</p> <p>ADA Bookstore and online shopping staff</p> <p>Primary DPGs, including but not limited to:</p> <ul style="list-style-type: none"> • Food and Culinary Professionals • Hunger and Environmental Nutrition • Public Health/Community Nutrition • Vegetarian Nutrition <p>Affiliate and DPG newsletter editors</p> | <p>ADA staff time</p> <p>DPG staff and/or volunteer time</p> <p>Affiliate staff and/or volunteer time</p> |

| VENUE | ACTION NEEDED | EXECUTION RESPONSIBILITY | RESOURCES NEEDED |
|--|--|--|--|
| <p>Log-On and Learn</p> <p>Web site</p> | <p>Within the ADA Web site, develop a sustainable food systems Web page including:</p> <ul style="list-style-type: none"> • Webcast • Webinar • Podcasts • Blogs <p>Develop a sustainable food systems toolkit to include, but not limited to:</p> <ul style="list-style-type: none"> • Self assessment tool • Sustainable Food Systems Primer • Sustainable Food Systems talking points or fact sheets for ADA spokespersons • Sample newsletter and research articles • CPEU • Evidence-based analysis on sustainable food systems • Resources <p>Develop a webpage, webcast, webinar, podcasts, and blogs.</p> | <p>ADA Sustainable Food System Task Force</p> <p>ADA Center for Professional Development</p> <p>ADA Information Technology / Web site Development staff</p> <p>Primary DPGs, including but not limited to:</p> <ul style="list-style-type: none"> • Food and Culinary Professionals • Hunger and Environmental Nutrition • Public Health/ Community Nutrition • Vegetarian Nutrition | <p>Funding for development of an online sustainable food systems toolkit</p> <p>ADA staff time</p> <p>HEN DPG volunteer time</p> |

| VENUE | ACTION NEEDED | EXECUTION RESPONSIBILITY | RESOURCES NEEDED |
|--|--|---|---|
| <p>Student and Professional Education</p> | <p>Establish recommendations for student competency revisions to CADE.</p> <p>Establish recommendations to CDR for CPEU learning code(s) regarding sustainable food systems.</p> | <p>ADA Sustainable Food System Task Force</p> <p>Primary DPGs, including but not limited to:</p> <ul style="list-style-type: none"> • Dietetic Educators of Practitioners • Food and Culinary Professionals • Hunger and Environmental Nutrition • Public Health/ Community Nutrition • Vegetarian Nutrition | <p>CADE staff and volunteer time</p> <p>CDR staff time</p> <p>DPG staff and/or volunteer time</p> |
| <p>Impact Statements</p> | <p>Assess and report sustainable food systems philosophies and practices and how they benefit individual practitioners and the association.</p> | <p>ADA Sustainable Food System Task Force</p> <p>HOD-appointed committee</p> <p>ADA staff</p> | <p>ADA staff time</p> <p>Committee volunteer time</p> |

| VENUE | ACTION NEEDED | EXECUTION RESPONSIBILITY | RESOURCES NEEDED |
|---|---|---|---|
| <p>ADA Policy</p> <p>Develop and implement sustainable food systems policies at all ADA educational and business events.</p> | <p>Commit to serve a minimum percentage of locally-grown, seasonal or sustainably-raised food at conferences.</p> <p>Commit a minimum percentage of FNCE programming to focus on sustainable food systems.</p> <p>Actively seek FNCE sponsors that promote sustainable food systems.</p> <p>Establish recommendations for DPGs and affiliates events.</p> | <p>ADA Sustainable Food System Task Force</p> <p>ADA Board of Directors</p> <p>ADA staff</p> <p>ADA FNCE Program Planning Committee</p> <p>Hunger and Environmental Nutrition DPG, Sustainable Ag and Food System Committee</p> <p>ADA media spokesperson</p> | <p>ADA staff and volunteer time</p> <p>Member volunteer time</p> <p>Financial resources</p> |

Section III. Opportunities and Emerging Roles for Food and Nutrition Professionals to Support Sustainable Food Systems

Regardless of the area of dietetic practice, food and nutrition professionals are involved with one or more sectors of the food system and may already be implementing sustainable food systems practices either personally or professionally. By engaging in local, seasonal, sustainable and organic issues, food and nutrition professionals can support the principles of sustainability and meet patient and client concerns about health and the environment. This will result in better nutrition counseling and improved nutritional health for the individual and their family. Sustainable food systems opportunities can extend to organizations and communities which will impact the health of larger groups.

Using the emerging roles of the food and nutrition professional in supporting sustainable food systems model as a guide, the following tables outline the principles of sustainability for each food system sector with ideas on how registered dietitians and dietetic technicians, registered can influence, advocate and support the development and maintenance of sustainable food systems.

| FOOD SYSTEM SECTOR | PRINCIPLES OF SUSTAINABLE PRACTICES | EMERGING ROLES FOR FOOD AND NUTRITION PROFESSIONALS |
|--|---|---|
| <p>Production</p> <p>Farming</p> <p>Fisheries</p> <p>Gardening</p> <p>Wild food or foraging</p> | <p>Safe, healthy food is produced and gathered with a holistic, sustainable approach including biodiversity, protection of the environment and conservation of natural resources.</p> <p>Examples include:</p> <ul style="list-style-type: none"> • Food (plants and animals) is grown and raised using sustainable or organic practices • The use of pesticides, herbicides, growth hormones and non-therapeutic antibiotics is limited. • Waters are fished with methods that do not pollute or destroy resources. <p>Food is grown for local and/or regional markets.</p> <p>Gardening using sustainable practices is encouraged in homes, schools and communities.</p> | <p>Educate about sustainable food products (i.e., perennial crops) and production methods.</p> <p>Educate about food safety issues related to sustainable production methods.</p> <p>Support and promote gardens and greenhouses including:</p> <ul style="list-style-type: none"> • Maintain a personal garden • Connect consumers to food that is sustainably-produced by promoting and maintaining gardening programs in: <ul style="list-style-type: none"> • Churches • Hospitals • Communities through parks and recreation programs • Schools and universities • Senior living centers • Urban centers <p>Partner with or become a Master Gardener.</p> <p>Host or promote agrotourism and ecotourism.</p> <p>Become a producer or farmer raising sustainable and/or organic food products.</p> <p>Become an organic certifier.</p> |

| FOOD SYSTEM SECTOR | PRINCIPLES OF SUSTAINABLE PRACTICES | EMERGING ROLES FOR FOOD AND NUTRITION PROFESSIONALS |
|--|--|--|
| <p>Transformation</p> <p>Processing</p> <p>Packaging</p> <p>Labeling</p> <p>Marketing</p> | <p>Whole food is encouraged.</p> <p>Food is picked at peak ripeness.</p> <p>Food is minimally processed to maintain nutritional value by preserving nutrients. Minimal additives are used.</p> <p>Food labels include origin, carbon ratings or “food miles.”</p> <p>Processing is geographically accessible.</p> <p>Opportunity to develop value-added products.</p> <p>Packaging is minimal and is recyclable.</p> <p>Uses renewable energy and minimal fossil fuels are used to generate energy for processing.</p> <p>Processing is community-based and not centralized.</p> | <p>Support and promote local processors including meat lockers and canning facilities.</p> <p>Educate about processing, preserving and preparing fresh food.</p> <p>Educate about food safety issues related to processing.</p> <p>Support and promote nontraditional local processing capabilities including:</p> <ul style="list-style-type: none"> • Churches • Community colleges • Mobile processing units |

| FOOD SYSTEM SECTOR | PRINCIPLES OF SUSTAINABLE PRACTICES | EMERGING ROLES FOR FOOD AND NUTRITION PROFESSIONALS |
|--|--|--|
| <p>Distribution</p> <p>Transportation</p> <p>Wholesaling</p> <p>Warehousing</p> | <p>Food travels the least distance from farm-to-fork resulting in minimal fossil fuels expended.</p> <p>Distribution is energy efficient, ecologically sound, safe and is regionally accessible.</p> <p>Food is distributed through local and regional channels.</p> <p>Food distributors make available local, seasonal and sustainably-raised food.</p> <p>Communities support local producers through local policies (i.e., tax incentives) and outlets such as farmers' markets, community supported agriculture (CSA) and cooperatives.</p> | <p>Promote and support local producers and distributors.</p> <p>Ask distributors for local, seasonal and sustainably-raised foods.</p> <p>Educate about purchasing local, seasonal and sustainably-raised foods.</p> <p>Educate about food safety issues related to regional distribution and transportation systems.</p> <p>Glean food from local farmers for food banks and pantries.</p> <p>Develop disaster and emergency preparedness plans that incorporate local, seasonal and sustainably-raised food.</p> |

| FOOD SYSTEM SECTOR | PRINCIPLES OF SUSTAINABLE PRACTICES | EMERGING ROLES FOR FOOD AND NUTRITION PROFESSIONALS |
|--|--|--|
| <p>Access</p> <p>Purchasing</p> <p>Retailing</p> <p>Food Safety Net</p> | <p>All consumers have regular access to safe and nutritious foods that support a healthy lifestyle.</p> <p>Food is purchased from local producers including:</p> <ul style="list-style-type: none"> • Farmers’ markets • Road stands • U-pick farms • Food stores • Community supported agriculture (CSA) • Farmers’ cooperatives <p>Food is purchased in season.</p> <p>Food is purchased in bulk.</p> <p>Emergency food is provided through gleaning of farms and retail.</p> <p>Institutional procurement standards and specifications support local, seasonal and sustainably-raised food.</p> | <p>Purchase and promote local, seasonal and sustainably-raised food to individuals, families, institutions and communities.</p> <p>Educate individuals and institutions about purchasing local, seasonal and sustainably-raised food.</p> <p>Educate about food safety issues related to purchasing local, seasonal and sustainably-raised food.</p> <p>Promote and refer others to the Senior Farmers’ Market Nutrition Program (SFMNP).</p> <p>Promote and refer others to the WIC Farmers’ Market Nutrition Program (WIC FMNP).</p> <p>Promote and support road stands and U-pick farms.</p> <p>Evaluate and revise institutional procurement policies and purchasing specifications to incorporate local, seasonal and sustainably-raised food.</p> <p>Initiate new farmers’ markets at:</p> <ul style="list-style-type: none"> • Hospitals • Schools and universities • Urban centers • Work sites <p>Work with food banks and pantries to provide local, seasonal and sustainably-raised food.</p> |

| FOOD SYSTEM SECTOR | PRINCIPLES OF SUSTAINABLE PRACTICES | EMERGING ROLES FOR FOOD AND NUTRITION PROFESSIONALS |
|----------------------------------|-------------------------------------|--|
| <p>Access (continued)</p> | | <p>Promote and support businesses or restaurants that use local, seasonal and sustainably-raised food.</p> <p>Share your home-grown food and recipes with family, friends, co-workers, neighbors, church, food pantry, etc.</p> <p>Promote or implement <i>Buy Fresh Buy Local</i> marketing initiatives.</p> <p>Encourage point-of-sale identification of local, seasonal and sustainably-raised food in markets.</p> |

| FOOD SYSTEM SECTOR | PRINCIPLES OF SUSTAINABLE PRACTICES | EMERGING ROLES FOR FOOD AND NUTRITION PROFESSIONALS |
|---|--|--|
| <p>Consumption</p> <p>Purchasing</p> <p>Preparing</p> <p>Eating</p> <p>Waste Management:</p> <ul style="list-style-type: none"> • Recycling • Composting • Minimize waste | <p>Local, seasonal and sustainably-raised food is purchased, prepared and consumed personally and professionally.</p> <p>Consuming fresh, minimally-processed food is important.</p> <p>Food consumption is enjoyable.</p> <p>Whole foods are purchased, prepared and consumed.</p> <p>Food is prepared to maintain freshness, nutritional value, taste and wholeness.</p> <p>All infants are breastfed.</p> <p>Nutrient extraction is minimized.</p> <p>Cooking skills are established.</p> <p>There is minimal food waste.</p> <p>Packaging is recyclable and environmentally-friendly.</p> <p>Unused food is recycled into the natural food system.</p> <p>Minimize pre-consumer waste in institutions.</p> <p>Opportunities to recycle and compost exist within the home, work place and in the community.</p> | <p>Choose a diet rich in locally-grown and seasonal foods.</p> <p>Educate about the health, social and environmental benefits of consuming local, seasonal and sustainably-raised food.</p> <p>Request food stores to buy from local farmers and processors.</p> <p>Ask where restaurant menu items come from and express interest in eating local, seasonal and sustainably-raised food.</p> <p>Shop at farmers’ markets and food coops.</p> <p>Educate eaters regarding food preparation and cooking skills using local, seasonal and sustainably-raised food through experiential learning including:</p> <ul style="list-style-type: none"> • Classes at farmers’ market, including through SFMNP and WIC FMNP • Share your harvest through recipes and sharing of food • Nutrition education at food banks and pantries • Classes for children with school gardens <p>Educate about food safety issues.</p> |

| FOOD SYSTEM SECTOR | PRINCIPLES OF SUSTAINABLE PRACTICES | EMERGING ROLES FOR FOOD AND NUTRITION PROFESSIONALS |
|-------------------------|-------------------------------------|--|
| Consumption (continued) | | <p>Educate food service professionals on preparing and cooking whole, local and seasonal food.</p> <p>Educate about the use of local, seasonal and/or organic food in all nutrition education classes.</p> <p>Provide support and encouragement to mothers who are breastfeeding.</p> <p>Work with restaurants and institutions to develop menus that use local, seasonal and sustainably-raised food.</p> <p>Establish food recovery systems and donate leftover food to emergency food programs.</p> <p>Use a composting system at home and at work.</p> <p>Educate about recycling and composting systems.</p> <p>Educate about food safety issues related to composting systems.</p> <p>Use packaging options that are recyclable and environmentally friendly.</p> <p>Implement a reduce, reuse, recycle program in your community.</p> |

Section IV. Opportunities for Food and Nutrition Professionals to Influence the Food System

Establishing and maintaining vibrant and sustainable food systems requires a multi-faceted approach to simultaneously strengthen the capacity of each cornerstone and building block of the food system. This includes recognizing the roles of social values, economics, policy, education, research and technology may play in shaping food systems. Food and nutrition professionals should be empowered to advocate and influence all sectors, such as:

- Advocating for social and economic standards to assure all people have access to safe, nutritious and sustainable foods.
- Supporting local, state and federal policies that reinforce farm diversification; improve and protect soil, water and air quality; leverage economic development tools to strengthen sustainable food systems; and establish closer connections to fresh, healthy and sustainable foods to rural and urban individuals.
- For example, the Farm Bill is the major piece of federal agricultural legislation that includes ten titles ranging from agricultural subsidies to the Food Stamp Program and to organic agriculture research. The Farm Bill is far reaching as it impacts the land and the food that is grown; therefore, it impacts the health and well-being of not only individuals in the U.S. but people all over the world who buy and receive food produced in the U.S. The Farm Bill is scheduled for reauthorization in 2007. The ADA Legislative and Public Policy Committee developed recommendations for the ADA Board of Directors and members. Food and nutrition professionals who are interested in learning more about the Farm Bill can refer to the following resources:
 - Weber J, Becker N. Framing the farm bill. *J Am Diet Assoc.* 2006;106(9):1354-1357.
 - Patrick S. Federal support for new food and nutrition research: Possibilities for the next farm bill. *J Am Diet Assoc.* 2006;106(12):1951-1953.
 - USDA 2007 Farm Bill Proposals, January 2007, www.usda.gov/farmbill.
- Encouraging advancements in education and research and the dissemination of information related to sustainable food systems.

The following tables describe how food and nutrition professionals can use these tools to influence food systems and build greater capacity for sustainability.

| INFLUENCES ON THE FOOD SYSTEM | PRINCIPLES OF SUSTAINABLE PRACTICES | EMERGING ROLES FOR FOOD AND NUTRITION PROFESSIONALS |
|--|---|--|
| <p>Social Values and Trends</p> | <p>The food system improves health.</p> <p>All people have the goal to leave the world in a better place for future generations.</p> <p>All people have access to safe, nutritious and sustainable foods at all times to sustain a healthy and active life now and in the future.</p> <p>Consumers seek good tasting and healthy food.</p> <p>Urban and rural quality of life is high.</p> <p>Ethnic and cultural practices are preserved.</p> <p>Seeds are saved from year to year.</p> <p>Genetic preservation of heirloom varieties and heritage breeds.</p> | <p>Compare the local and global impact of sustainable food systems versus an industrialized agribusiness system.</p> <p>Conduct a community-based food system profile to assess food security and food system sustainability.</p> <p>Establish evidence-based research linking sustainable food systems to nutrition and health indicators.</p> <p>Promote local, state and federal policies that support social values of food systems.</p> |
| <p>Economics</p> | <p>All people have access to safe, nutritious and sustainable foods at all times to sustain a healthy and active life.</p> <p>Sustainable food systems are economically viable.</p> <p>Farms are diversified leading to food and farm business growth.</p> <p>Workforce is diverse, paid fair wages and is well-trained.</p> <p>Lenders provide loans to sustainable farmers, processors and distributors.</p> | <p>Study the economic impact of community-based sustainable food systems.</p> <p>Study the pervasiveness of food insecurity and hunger in the U.S.</p> <p>Promote local, state and federal policies that provide economic incentives for building and maintaining a sustainable food system.</p> |

| INFLUENCES ON THE FOOD SYSTEM | PRINCIPLES OF SUSTAINABLE PRACTICES | EMERGING ROLES FOR FOOD AND NUTRITION PROFESSIONALS |
|-------------------------------|--|---|
| <p>Policy</p> | <p>All people have access to safe, nutritious and sustainable foods at all times to sustain a healthy and active life now and in the future.</p> <p>Local agencies and organizations steer and cultivate the establishment and maintenance of a sustainable food system.</p> <p>Economic incentives are available to establish sustainable practices.</p> <p>Precautionary Principle provides a basis for policy.</p> <p>Agriculture and food policies support dietary guidelines.</p> | <p>Engage with or establish a food policy council.</p> <p>Propose or support local, state and or federal policy (legislation or other) that supports sustainable food systems such as:</p> <ul style="list-style-type: none"> • Tax incentives for local producers and processors • Institutional food procurement policies that support purchasing local foods (i.e., hospitals, schools, universities, correctional facilities, long-term care facilities) • Federal farm bill language, for example nutrition programs procurement of local foods, country of origin labeling, food safety (i.e., genetically modified foods, non-therapeutic use of antibiotics in livestock), and liberalize WIC and Food Stamp policies to use food instruments or Electronic Benefits Transfer (EBT) for local, fresh produce. <p>Promote and support sustainable food systems within ADA infrastructure.</p> <p>Perform impact statements that assess food system policies and their impact on a healthy, sustainable food system.</p> |

| INFLUENCES ON THE FOOD SYSTEM | PRINCIPLES OF SUSTAINABLE PRACTICES | EMERGING ROLES FOR FOOD AND NUTRITION PROFESSIONALS |
|-------------------------------|--|---|
| <p>Education</p> | <p>Dietetic education includes sustainable food systems concepts and experiential learning opportunities.</p> <p>Regular continuing professional development opportunities pertaining to sustainable food systems exist for food and nutrition professionals.</p> <p>School (K-12) curricula includes food systems courses, family and consumer sciences, and gardening or agriculture.</p> <p>Marketing and media influence sustainable food choices.</p> <p>Sustainable food systems information is continually disseminated to communities.</p> | <p>Support or establish dietetic education curricula that focuses on sustainable food systems and sustainable living.</p> <p>Support or establish continuing professional development opportunities for food and nutrition professionals.</p> <p>Propose or support the integration of sustainable food systems concepts into school curriculum.</p> <p>Implement the <i>Buy Fresh Buy Local</i> marketing initiatives.</p> <p>Use media to promote local, seasonal and sustainably-raised food.</p> <p>Support a food label pertaining to sustainable production and processing.</p> |

| INFLUENCES ON THE FOOD SYSTEM | PRINCIPLES OF SUSTAINABLE PRACTICES | EMERGING ROLES FOR FOOD AND NUTRITION PROFESSIONALS |
|---------------------------------------|--|--|
| <p>Research and Technology</p> | <p>All new technologies, such as genetic engineering of food, are extensively researched as to health and environmental impacts using the Precautionary Principle.</p> <p>Recognition that much of the U.S. food supply is genetically altered and travels approximately 1500 miles to the consumer.</p> <p>Grants and incentives are available to study sustainable food systems.</p> | <p>Establish position and practice papers on sustainable food systems.</p> <p>Implement the community sustainable food systems assessment tool.</p> <p>Develop and share sustainable food systems models and processes.</p> <p>Develop a sustainable food systems toolkit.</p> <p>Seek research grants to support sustainable food systems research.</p> <p>Tap into university extension and agricultural universities (land grant universities) resources to support sustainable food systems.</p> <p>Link nutrition and dietetic programs with agriculture programs at universities to study sustainable food systems and the impact on nutrition and health.</p> |

Section V. Partnerships and Collaboration

In addition to learning about sustainable food systems within ADA, food and nutrition professionals can find information through other organizations and resources listed in the comprehensive table below. A short description of the resource and the web site for more information are included. Dietitians and dietetic technicians, registered can be contributing members of these groups as the nutrition information specialist. Internet searches may reveal more valuable regional resources.

| UNIVERSITIES | DESCRIPTION | WEB SITE |
|---|--|--|
| Cornell University Cooperative Extension, Agriculture, Food and Communities | A partnership of sustainable food and agriculture systems programs to foster collaboration in research, teaching and extension. | www.cfap.org/afs_ld.cfm |
| Iowa State University, Leopold Center for Sustainable Agriculture | This research and education center supports statewide programs to develop sustainable agricultural practices that are profitable and conserve natural resources. | www.leopold.iastate.edu/ |
| Michigan State University, CS Mott Group for Sustainable Food Systems | The C.S. Mott Group promotes community engagement and scholarly activity focused on community-based food systems. | www.mottgroup.msu.edu |
| University California Davis, Center for Agro-Ecology and Sustainable Food Systems | This statewide program provides leadership and support for research and education in agricultural and food systems that are economically viable, conserve natural resources and biodiversity, and enhance the quality of life in the state's communities. | www.sarep.ucdavis.edu |
| University of Minnesota, Minnesota Institute for Sustainable Agriculture | A partnership between the College of Food, Agricultural and Natural Resource Sciences; and the Sustainers' Coalition, a group of individuals and non-profit organizations formed to bring together the diverse interests to develop and promote sustainable agriculture. | www.misa.umn.edu |

| UNIVERSITIES | DESCRIPTION | WEB SITE |
|---|--|--|
| University of New Hampshire Office of Sustainability | OS is charged with collaborating with faculty, staff, administrators, and students to integrate the principles and practices of sustainability throughout UNH's "CORE" - curriculum, operations, research, and engagement with local, state, regional, national, and international partners. OS is the longest-standing endowed university sustainability program in the nation. | www.sustainableunh.unh.edu/fas/projects.html |
| University of Vermont Center for Sustainable Agriculture | Integrates university and community expertise to promote sustainable farming systems throughout Vermont and the region by involving farmers, the University and other organizations. | www.uvm.edu/~susagctr/ |
| University of Wisconsin Center for Integrated Agricultural Systems | A sustainable agriculture research center at the University of Wisconsin-Madison. | www.cias.wisc.edu/ |
| Washington State University Center for Sustaining Agriculture and Natural Resources | CSANR promotes healthy farms, food and people. Since its inception, the center has been working with communities to foster approaches that are economically viable, environmentally sound, and socially responsive. | http://csanr.wsu.edu/AboutCSANR/index.htm |
| Yale Sustainable Food Project | The Food Project was established to nourish a culture in which the pleasures of growing, cooking, and sharing food are integral to each student's experience at Yale. | www.yale.edu/sustainablefood |

| GOVERNMENT ORGANIZATIONS | DESCRIPTION | WEB SITE |
|---|---|---|
| United States Department of Agriculture Alternative Farming Information Center | This site facilitates locating information on a wide range of agriculture-related subjects. Also contains popular resources such as publications on sustainable agriculture, a database on community supported agriculture, and guidance for applying for a SARE grant. | http://afsic.nal.usda.gov/nal_display/index.php?tax_level=1&info_center=2 |
| United States Department of Agriculture, Agricultural Marketing Service, Farmers' Markets | Interactive web site to find local farmers' markets. | http://www.ams.usda.gov/farmersmarkets/map.htm |
| United States Department of Agriculture Sustainable Agriculture Research and Education | This site helps advance farming systems that are profitable, environmentally sound and good for communities through a nationwide research and education grants program. Describes how sustainable agriculture works on diverse farms throughout the U.S. | www.sare.org |
| National Organic Program | National web site for organic standards, regulations, guidelines and certification process. Links to National Organic Standards Board. | http://www.ams.usda.gov/NOP/indexNet.htm |
| National Sustainable Agriculture Information Service | The latest in sustainable agriculture and organic farming news, events and funding opportunities. Provides in-depth publications on production practices, alternative crop and livestock enterprises, innovative marketing, organic certification, and highlights of local, regional, USDA and other federal sustainable agricultural activities. | www.attra.org |

| PEER-REVIEWED JOURNALS | DESCRIPTION | WEB SITE |
|--|--|---|
| <i>Agriculture, Food and Human Values</i> | This journal connects the humanities, social sciences, food and nutrition studies, and the agricultural disciplines, and to promote an ethical, social and ecological understanding of agricultural and food systems. | www.springer.com/west/home/humanities? SGWID=4-40361-70-35549096-0 |
| <i>Journal of Agriculture and Environmental Ethics</i> | This journal presents ethical questions concerning the responsibilities of agricultural producers, how technological changes affect farm populations, utilization of farmland and other resources, the deployment of intensive agriculture, the modification of ecosystems, animal welfare, the use of biotechnology, the safety, availability, and affordability of food. | www.springer.com/journal/10806 |
| <i>Journal of Hunger & Environmental Nutrition</i> | This peer-reviewed journal is targeted to professionals interested in nutrition, food and water security, health, agriculture and the environment. | www.haworthpress.com |
| <i>Journal of Sustainable Agriculture</i> | This journal focuses on new and unique systems in which resource usage and environmental protection are kept in balance with the needs of productivity, profits, and incentives that are necessary for the agricultural marketplace. | www.haworthpress.com |

| FOOD POLICY COUNCILS | DESCRIPTION | WEB SITE |
|---|--|---|
| Connecticut Food Policy Council | This Council promotes the development of government actions that influence the availability, affordability, quality and safety of the food supply for the State of Connecticut and the coordination of state agencies that affect food security. | www.foodpc.state.ct.us/ |
| Drake University Local and State Food Policy Councils | A clearinghouse of information on the development of food policy councils which features education and outreach materials, reports and publications. | www.statefoodpolicy.org/ |
| Iowa Food Policy Council | This Council provides a comprehensive examination of Iowa's food system and makes recommendations for improvement through public policy changes. | www.iowafoodpolicy.org/ |
| Michigan Food Policy Council | This Council provides a comprehensive examination of Michigan's food system and makes recommendations for improvement through public policy change. | http://www.michigan.gov/mfpc |
| Oklahoma Food Policy Council | This Council provides a comprehensive examination of Oklahoma's food system and makes recommendations for improvement through public policy change. | www.kerrcenter.com/ofpc/index.htm |
| Portland/Multnomah Food Policy Council | This Council provides education and a compilation of information about the local food system. | http://www.portlandonline.com/osd/index.cfm?c=eccja |
| Toronto Food Policy Council | A collection of hard-to-get information and makes available to students, researchers, community developers and the public. | www.toronto.ca/health/tfpc_index.htm |

| PROFESSIONAL ASSOCIATIONS | DESCRIPTION | WEB SITE |
|---|---|--|
| Agriculture, Food and Human Values | AFHVS provides a forum for examining the values that underlie various visions of food and agricultural systems, and it offers members the opportunity to meet and discuss programs and research ideas of common interest. | www.afhvs.org |
| American Dietetic Association, Hunger & Environmental Nutrition DPG | The goal of the HEN DPG is to lead the future in sustainable and accessible food and water systems through dietetics education, research and action. | www.HENdpg.org |
| American Public Health Association | For more than 125 years, APHA has been setting standards and policies that prevent disease and promote health. APHA has a Food and Nutrition and Environmental Health Special Interest Groups. | www.apha.org |
| International Society for Ecology and Culture | ISEC promotes locally based alternatives to the global consumer culture with emphasis on education for action: moving beyond single issues to look at the more fundamental influences that shape our lives. | www.isec.org.uk/ |
| Society for Nutrition Education, Division of Sustainable Food Systems | This division of SNE promotes food systems that are environmentally sound, socially just, economically viable and that produce quality food. | www.sne.org |
| Women, Food & Agriculture Network | This Network links and empower women to build food systems and communities that are healthy, just, and sustainable, and that promote environmental integrity | www.wfan.org |

| ADVOCACY ORGANIZATIONS | DESCRIPTION | WEB SITE |
|---|--|--|
| Center for Environmental Health - Sustainable Food Program | CEH protects the public from environmental and consumer health hazards. CEH is committed to environmental justice, reducing the use of toxic chemicals, supporting communities in their quest for a safer environment, and corporate accountability. CEH changes corporate behavior through education, litigation, and advocacy. | www.cehca.org/ |
| Center for Informed Food Choices | The Center for Informed Food Choices (CIFC) advocates for a diet based on whole, unprocessed, local, organically grown plant foods. CIFC believes that: placing these foods at the center of the plate is crucial for promoting public health, protecting the environment, and assuring the humane treatment of animals and food industry workers. | www.informedeating.org/ |
| Environmental Commons | This organization works to preserve our natural areas, protect wildlife, and promote sustainable policies using education and informed discussion. | www.environmentalcommons.org |
| Institute for Agriculture and Trade Policy | This Institute promotes resilient family farms, rural communities and ecosystems around the world through research and education, science and technology, and advocacy. | www.iatp.org/ |
| Natural Resources Defense Council, Health and the Environment | This Council's purpose is to safeguard the Earth: its people, its plants and animals and the natural systems on which all life depends. | www.nrdc.org/health/default.asp |

| ADVOCACY ORGANIZATIONS | DESCRIPTION | WEB SITE |
|-------------------------------|---|---|
| Organic Consumers Association | This Association is a n online and grassroots non-profit 501(c)3 public interest organization campaigning for health, justice, and sustainability. The OCA deals with crucial issues of food safety, industrial agriculture, genetic engineering, children's health, corporate accountability, Fair Trade, environmental sustainability and other key topics. | www.organicconsumers.org |
| Prevention Institute | A non-profit national center dedicated to improving community health and well-being by building momentum for effective primary prevention. | www.preventioninstitute.org/ |
| Union of Concerned Scientists | Leading science-based nonprofit working for a healthy environment and a safer world. UCS combines independent scientific research and citizen action to develop innovative, practical solutions and to secure responsible changes in government policy, corporate practices, and consumer choices. | http://ucsaction.org/ucsaction/home.html |

| HEALTHCARE AND FOOD SERVICE MANAGEMENT | DESCRIPTION | WEB SITE |
|---|---|--|
| American Society for Healthcare Food Service Administration | A source of professional education and information for food and nutrition service management professionals. | www.ashfsa.org/ |
| Healthcare Foodservice Management | HFM is a healthcare foodservice organization that enables its members to lead their departments and institutions in delivering superior customer service. | www.hsm.org |

| HEALTHCARE AND FOOD SERVICE MANAGEMENT | DESCRIPTION | WEB SITE |
|---|--|---|
| Healthcare Without Harm | An international coalition of hospitals and health care systems, medical professionals, community groups, health-affected constituencies, labor unions, environmental and environmental health organizations and religious groups. | www.noharm.org/us |
| Kaiser Permanente Farmers' Market Program | In-house market programs originated by founder Dr. Maring Preston to promote healthy eating of organic foods, fruits and vegetables. | http://members.kaiserpermanente.org/redirects/farmersmarkets/ |

| FOOD-RELATED ORGANIZATIONS WITH SUSTAINABLE INTEREST | DESCRIPTION | WEB SITE |
|--|--|--|
| Chefs Collaborative | Chefs Collaborative works with chefs and the greater food community to celebrate local foods and foster a more sustainable food supply. The Collaborative inspires action by translating information about our food into tools for making knowledgeable purchasing decisions. | www.chefscollaborative.org/ |
| Eat Well Guide | The Eat Well Guide is a project of Sustainable Table, which celebrates the sustainable food movement, educates consumers on food-related issues, and works to build community through food. It offers a comprehensive way to find wholesome, fresh, sustainable food in the US and Canada. | www.eatwellguide.org |
| The Food Project | The Food Project produces healthy food for residents of the city and suburbs, provides youth leadership opportunities, and inspires and supports others to create change in their own communities. | www.thefoodproject.org/ |

| FOOD-RELATED ORGANIZATIONS WITH SUSTAINABLE INTEREST | DESCRIPTION | WEB SITE |
|--|---|---|
| Food Routes | The Food Routes Web site is a project of FoodRoutes Network (FRN). FRN is a national nonprofit organization that provides communications tools, technical support, networking and information resources to organizations nationwide that are working to rebuild local, community-based food systems. | www.foodroutes.org |
| Growing Power | Growing Power, Inc. is a non-profit organization and land trust supporting people from diverse backgrounds and the environment in which they live by helping to provide equal access to healthy, high-quality, safe and affordable food. This mission is implemented by providing hands-on training, on-the-ground demonstration, outreach and technical assistance through the development of Community Food Systems that help people grow, process, market and distribute food in a sustainable manner. | http://growingpower.org/ |
| Hartford Food System | The mission of the Hartford Food System is to fight hunger and improve nutrition for disadvantaged members of our community through sustainable, non-emergency strategies. | http://hartfordfood.org/ |
| Marine Stewardship Council | An independent non-profit organization that aims to promote sustainable fishery practices. | www.msc.org |
| Oldways Preservation Trust | An organization to research and promote a harmony of traditional food patterns, sustainable agriculture, and healthy eating and drinking. | www.oldwayspt.org/ |

| FOOD-RELATED ORGANIZATIONS WITH SUSTAINABLE INTEREST | DESCRIPTION | WEB SITE |
|--|---|--|
| Red Tomato | Red Tomato is a nonprofit that connects farmers with markets, and consumers with fresh fruits and vegetables. Products are grown on family farms, using ecological methods including organic, IPM, and biodynamic farming, and sold through supermarkets, coops, and restaurants. | www.redtomato.org |
| Slow Food USA | A non-profit educational organization dedicated to supporting and celebrating the food traditions of North America. | www.slowfoodusa.org/ |

| SUSTAINABLE AGRICULTURE AND FARMING ORGANIZATIONS | DESCRIPTION | WEB SITE |
|---|---|--|
| American Community Gardening Association | A bi-national nonprofit membership organization of professionals, volunteers and supporters of community greening in urban and rural communities. Founded in 1979 to help gardening programs share their limited resources, and benefit from each other's experience and expertise. | http://communitygarden.org |
| American Farmland Trust | American Farmland Trust (AFT) is a nonprofit membership organization dedicated to protecting our nation's strategic agricultural resources. | www.farmland.org |
| Edible Schoolyard | The mission of the Edible Schoolyard at Martin Luther King, Jr. Middle School is to create and sustain an organic garden and landscape that is wholly integrated into the school's curriculum and lunch program. It involves the students in all aspects of farming the garden – along with preparing, serving and eating the food. | www.edibleschoolyard.org |

| SUSTAINABLE AGRICULTURE AND FARMING ORGANIZATIONS | DESCRIPTION | WEB SITE |
|---|---|--|
| Farm to Family Connection | Online publication that promotes sustainable agriculture awareness by providing farmers a forum through commentary. | www.farmtofamily.net |
| Farm to School | The National Farm to School Network is a collaborative project with the goal of strengthening and expanding activities in states with existing programs and assisting others that do not yet have programs. These programs connect schools with local farms with the objectives of serving healthy meals in school cafeterias, improving student nutrition, providing health and nutrition education opportunities that will last a lifetime, and supporting local small farmers. | www.farmtoschool.org |
| Kerr Center for Sustainable Agriculture | This Center promotes new farming practices and better marketing and food distribution structures. | www.kerrcenter.com |
| Land Stewardship Project | The project's mission is to foster an ethic of stewardship for farmland, to promote sustainable agriculture and to develop sustainable communities. | www.landstewardshipproject.org/ |
| Michael Fields Agricultural Institute | This Institute is devoted to developing an agriculture that can sustain the land and its resources. As a public, non-profit learning center, the goal is to revitalize farming with research, education, technical assistance and public policy. | www.michaelfieldsagainst.org/ |

| SUSTAINABLE AGRICULTURE AND FARMING ORGANIZATIONS | DESCRIPTION | WEB SITE |
|---|--|--|
| National Campaign for Sustainable Agriculture | A diverse nationwide partnership of individuals and organizations cultivating grass roots efforts to engage in policy development processes that result in food and agricultural systems and rural communities that are healthy, environmentally sound, profitable, humane and just. | www.sustainableagriculture.net/ |
| National Family Farm Coalition | NFFC provides a voice for grassroots groups on farm, food, trade and rural economic issues to ensure fair prices for family farmers, safe and healthy food, and vibrant, environmentally sound rural communities here and around the world. | www.nffc.net |
| Organic Farming Research Foundation | This Foundation fosters the improvement and widespread adoption of organic farming practices. | http://ofrf.org/ |
| Project Food, Land & People | This project provides curriculum aids and lessons for K-12. The project promotes approaches to learning to help people better understand the interrelationships among agriculture, the environment and people of the world. | www.foodlandpeople.org |
| Sustainable Farming Association of Minnesota | The Sustainable Farming Association of Minnesota supports the development and enhancement of sustainable farming systems through innovation, demonstration, education, and farmer-to-farmer networking. | www.sfa-mn.org/index.php |
| Value Chain Partnerships for a Sustainable Agriculture | Value Chain Partnerships supports the development and enhancement of sustainable farming systems through innovation, demonstration, education, and farmer-to-farmer networking. | www.valuechains.org/ |

| SUSTAINABLE AGRICULTURE AND FARMING ORGANIZATIONS | DESCRIPTION | WEB SITE |
|---|---|--|
| Washington Sustainable Food and Farming Network | A grassroots, statewide advocacy organization for sustainable agriculture and family farms in Washington State. Promotes community environmental, social, and economic well-being by joining together and mobilizing residents and organizations of Washington in creating a sustainable food and farming system. | www.wsffn.org |
| Youth Farm and Market Project | Building on a variety of traditions in working the land and growing and preparing food, Youth Farmers build cross-cultural and intergenerational relationships, cultivate youth leadership, engage in micro-enterprise development, and organize neighbors to envision, realize and activate neighborhood public space. | www.youthfarm.net |

| SUSTAINABLE FOOD SYSTEMS ORGANIZATIONS | DESCRIPTION | WEB SITE |
|--|---|--|
| Center for Ecoliteracy | This Center is dedicated to education for sustainable living. It is a public foundation that supports a grantmaking program for educational organizations and school communities, primarily in the San Francisco Bay Area. | www.ecoliteracy.org/index.html |
| Center for Food & Justice | A multifaceted, social change-oriented Institute consisting of centers, programs and a core staff. It exists to help create a more just, livable, and democratic region - provides the backdrop for a wide range of activities and relationships. | www.departments.oxy.edu/uepi/cfj/ |
| Community Food Security Coalition | This Coalition is dedicated to education for sustainable living. | www.foodsecurity.org |

| SUSTAINABLE FOOD SYSTEMS ORGANIZATIONS | DESCRIPTION | WEB SITE |
|--|--|--|
| Food Security Learning Center | An electronic learning center that pulls together in one place information on community food security, nutrition, domestic hunger and poverty, federal food programs, rural poverty, the family farm crisis and migrant workers. | http://www.worldhungeryear.org/fslc/ |
| Garden Raised Bounty | Garden Raised Bounty is a grassroots non-profit organization located in Thurston & Mason Counties, Washington State who is dedicated to nourishing community by empowering people to grow good food. | www.goodgrub.org |
| Nuestra Raices | Nuestras Raíces is a grass-roots organization that promotes economic, human and community development in Holyoke, Massachusetts through projects relating to food, agriculture and the environment. Most members are from rural Puerto Rico and came to the northeast as migrant farm workers. | http://nuestras-raices.org/ |
| People's Grocery | The mission of People's Grocery is to develop a self-reliant, socially just and sustainable food system in West Oakland through community-based, youth-focused and innovative social enterprises, urban agricultural projects, educational programs and public policy initiatives that foster healthy, equitable and ecological community development. | www.peoplesgrocery.org |
| Sustainable Communities Network – Agriculture and Food Systems | This is a program that links individuals to resources and to one another to create healthy vital sustainable communities. | www.sustainable.org/economy/agriculture.html |
| Sustainable Food Center | This Center is dedicated to creating a food secure community by improving access to local, healthy, and affordable food for children and adults in Central Texas. | www.sustainablefoodcenter.org |

| SUSTAINABLE FOOD SYSTEMS ORGANIZATIONS | DESCRIPTION | WEB SITE |
|--|---|--|
| Sustainable Food Laboratory | The mission of the Sustainable Food Lab is to accelerate improvement in mainstream food and agriculture systems so we can sustain a high quality life on earth. | www.sustainablefood.org |
| Sustainable Food Systems LLC | Sustainable Food Systems helps organizations and institutions make social, ecological—and delicious—differences in their business, in their communities and in our world through the way they interact with food. | www.sustainablefoodsystems.com |
| Sustainability Institute | The Institute focuses on understanding the root causes of unsustainable behavior in complex systems to help restructure systems and shift mindsets that will help move human society toward sustainability. | www.sustainer.org |
| Sustainable Table– Serving Health Food Choices | Sustainable Table educates consumers on food related issues and work to build community through food. | www.sustainabletable.org |

| SUSTAINABLE FOOD SYSTEM FUNDERS, LENDERS & FOUNDATIONS | DESCRIPTION | WEB SITE |
|--|---|--|
| Sustainable Agriculture and Food Systems Funders Group | This Group is a national working group of grant-makers that seeks to promote a more sustainable agriculture and food system. | www.safsf.org |
| Robert Wood Johnson Foundation | As the nation's largest philanthropy devoted to improving health and health care, RWJF supports training, education, research and projects that demonstrate effective ways to deliver health services, especially for the most vulnerable among us. | www.rwjf.org |

| SUSTAINABLE FOOD SYSTEM FUNDERS, LENDERS & FOUNDATIONS | DESCRIPTION | WEB SITE |
|--|---|--|
| Roots of Change Fund | Roots of Change is a collaborative involving foundations, civil society organizations, business and government working together to catalyze the transition to a sustainable food system in California. | www.rocfund.org |
| W. K. Kellogg Foundation | Programming activities center around the common vision of a world in which each person has a sense of worth; accepts responsibility for self, family, community, and societal well-being; and has the capacity to be productive, and to help create nurturing families, responsive institutions, and healthy communities. | www.wkkf.org |

Section VI. Sustainable Food Systems Scenarios

The following scenarios are a sample of how sustainable principles can be successfully implemented within many areas of dietetic practice. Additional information may be obtained from the web sites.

Hospitals & Healthcare Systems

Catholic Healthcare West (CHW) Food & Nutrition Services, San Francisco, California - The vision statement of CHW is recognition that food production and distribution systems have wide ranging impacts on the health of people, their communities and the ecosystems in which they live; and so CHW recognizes that “healthy food” describes not only nutritional quality, but equally by a food system which is ecologically sound, economically viable, and supportive of human dignity and justice, and so; CHW aspires to develop a healthy food system. For more information go to <http://www.chwhealth.org> or <http://www.noharm.org/details.cfm?ID=1298&type=document>.

Cass County Memorial Hospital, Atlantic, Iowa - Under the direction of Emily Kregel, dietitian and food service director, the Cass County Memorial Hospital has integrated locally raised meats and produce into their food service operation. In 2006, the hospital purchased a hog and steer at the Cass County Fair in an effort to support local 4-H groups and to demonstrate to the community their commitment to supporting local initiatives. Providing fresh, locally produced food has improved patient satisfaction and has not increased food costs. For more information go to <http://www.casshealth.org/>.

Fairview Hospital and Dickinson Hospitals, Massachusetts - Two Western Massachusetts hospitals have become the first in the state to commit to serving healthy food that is locally sourced and sustainably grown. Fairview Hospital, part of the Berkshire Health Systems in Great Barrington, and Cooley Dickinson Hospital in Northampton recently signed the Healthy Food in Healthcare pledge, a voluntary commitment to serve food that is healthier for people and the environment. “Serving healthy and sustainably grown food is as essential to the health of our community as the medical care we provide,” said Siobhan McNally, MD, a pediatrician with the Berkshire Medical Center. “The hospitals’ comprehensive approach to healthy food is good medicine.” Fairview is already serving rBGH-free milk throughout their facility, and has begun conversations with Berkshire Grown, a community based organization supporting local food and farms, to serve local produce. Cooley Dickinson serves their own brand of Fair Trade coffee. Three years ago, Cooley Dickinson was the first hospital to sign on the Communities Involved in Sustaining Agriculture (CISA) “Be a Local Hero; Buy Locally Grown” initiative. Fairview physician Lisa M. Sylvia added, “Serving healthy and locally grown foods shows how dedicated we are to our community. We are a leader and a mentor when it comes to healthy eating, local financial sustainability, and improving our environment.” For more information go to www.healthyfoodinhealthcare.org.

Good Shepherd Health Care System, Hermiston, Oregon - An independent hospital that has made progress towards a sustainable food service is the Good Shepherd Health Care System (GSHCS) in Hermiston, Oregon. Food service director Nancy Gummer, RD, LD, CDE has been working toward a sustainable food service for several years. She remarks that it is an ongoing process and that her crew has as much passion for serving fresh and healthy food as she does. They routinely use rBGH-free milk, hormone- and antibiotic-free meat including pork, beef, and bison. “We buy some organic products – however, availability is variable on some things. We always have organic yogurt, but organic fruit is not as reliable. We make our own master mixes, using flour from Shepherd’s Grain, which is food

alliance certified and the price is based on the cost of production." The GSHCS offers seasonal vegetables and uses local growers for as much produce as possible. During asparagus season they serve asparagus fixed differently every day. Although many customers do not remember what seasonal eating is, Nancy's crew reminds them that asparagus is harvested for a finite period of time. Nancy states, "While we have made good progress towards a sustainable food service, we have experienced many of the challenges, frustrations and successes that go along with that process. Not to mention the lessons learned!" For more information go to <http://www.gshealth.org/>.

Kaiser Permanente, Oakland, California - One of the largest health care systems in the U.S., Kaiser Permanente (KP) aspires to improve the health of their members, employees, communities and the environment by increasing access to fresh, healthy food in and around KP facilities. They promote agricultural practices that are ecologically sound, economically viable and socially responsible by the way they purchase food. In 2003 KP started with one on-site farm market. Because this market was so successful, they expanded the program and now have 33 farm markets. Through their experiences, they have developed a comprehensive food policy that promotes individual and environmental health, including minimum standards for healthy food and beverage vending and a healthy picks program in their cafeterias. Presently, KP is piloting a program of purchasing locally-grown produce from limited-resource farmers for patient meals. If successful, they intend to incorporate this program into their routine purchasing practices. For more information go to <http://www.kaiserpermanente.org/> or <http://www.noharm.org/details.cfm?ID=1112&type=document>.

Oregon Health & Sciences University, Portland, Oregon - OHSU is stepping up its program of supporting Oregon farmers and growers by purchasing more seasonal and local produce and products. The university's goal is to provide the freshest food possible to patients -- serving 7,000 meals a day -- while also supporting crop diversity, family farms, rural economies and a healthy environment, said Mike Goodrich, OHSU executive chef. OHSU uses about 130 tons of produce each year to prepare healthy meals for patients, staff and visitors. So far, about 2 percent is from local growers, but now OHSU is poised to buy "as much quality seasonal produce from local farmers as we can timely manage," Goodrich said. Growing Life Farms supplied 1,900 pounds of pesticide-free crookneck yellow squash to OHSU kitchens. The farm is also growing beets, zucchini, cucumbers, tomatoes and herbs such as mint for OHSU. This fall, OHSU will also purchase local apples and pears from Gorge growers and during the winter will prepare meals using locally grown kale and chard. Vendors are supplying nuts, bread, dairy products and some fish. "We are hoping to create a system where we can set up contracts with growers for subsequent seasons. This will allow them to know in advance that there will be a buyer for their locally grown produce and give us the ability to plan for deliveries," said Goodrich. OHSU's support for sustainable food systems began over a year ago when Goodrich attended a Portland event hosted by Ecotrust, a local environmental group that connects local chefs and farmers. In addition to buying directly from farmers, OHSU is cooperating with other area hospitals interested in supporting sustainable food systems. For more information go to <http://www.ohsu.edu/ohsuedu/newspub/releases/112806farmers.cfm>.

St. Luke's Hospital, Duluth, Minnesota - St. Luke's Hospital introduced organic foods in their cafeteria and to patients. Hospital coffee is Fair Trade certified and the items in their salad bar are organic and locally raised. For more information go to <http://www.slhduluth.com/>.

Swedish Covenant Hospital, Chicago, Illinois - Chicago's Swedish Covenant Hospital has debuted a new organic patient menu. As part of the initiative, all stewed and ground beef used in patient meals (including its traditional Swedish meatballs) is from pure grass-fed beef and many of the fruits and vegetables are organically grown. "We'll soon be able to offer some meals that are completely organic," claims Maria Simmons, manager of patient food service and chair of the hospital's Nutrition Action Committee. "Swedish meatballs are made with grass-fed beef and organic

eggs, onions and milk, for example. "We viewed the introduction of more organic foods as part of a broad program aimed at providing a home-like atmosphere during a stay at our hospital," Simmons adds. "It's also a natural extension of our cultural foods menu." The hospital has offered authentic Korean and Hispanic dishes made entirely from scratch in the hospital kitchen. An Indian Halal menu is expected to debut in the near future. The organic and cultural dishes are currently available only to patients but will soon be offered periodically in the hospital cafeteria, as well. For more information go to <http://www.schosp.org/planetree/sstlist.asp?st=4371&sst=673&c=181267>.

Long Term Care Facilities

Bartels Lutheran Nursing Home, Waverly, Iowa - Bartels Lutheran Home is a 200-bed facility that provides retirement, nursing, assisted living, skilled and Alzheimer's care. When patients at Bartels began requesting fresh, locally-grown tomatoes, food service director Robin Gaines began to focus on sourcing local foods. During 2004, more than 15% of food purchased was produced locally. Local sourcing includes meat, milk, fruits and vegetables. Bartels pays approximately the same amount per meal to buy locally. Buying locally symbolizes Bartels' commitment to the community as well as provides greater patient satisfaction. For more information go to <http://www.healthobservatory.org/library.cfm?refid=72927> and <http://www.uni.edu/ceee/foodproject/>.

Academic Institutions

The Student Farm at the University of California, Davis - Since 1977, the Student Farm has served the UC Davis students and faculty, farmers, gardeners, school children and many others. Its unique program centers around: 1) a focus on sustainable agriculture principles and practices, 2) an emphasis on in-field, experiential learning, and 3) the encouragement of student initiative, creativity and exploration. The Student Farm offers a wide range of opportunities for students to learn about and explore the many aspects of sustainable agriculture including internships, formal courses and research projects. For more information go to <http://studentfarm.ucdavis.edu/>.

University of Montana, Missoula Farm to College Program - University Dining Services and four UM graduate students teamed-up in 2003 to create the UM Farm to College Program, dedicated to buying more food locally and regionally to feed the campus community. Through this program, the University plays a greater role in supporting Montana's economy, strengthening the local community and helping to preserve Montana's natural and cultural heritage. This program utilizes local and regional foods through the form of a Farm to College retail section in the Cascade Country Store, special monthly Farm to College events and new daily Farm to College menu items like the Big Sky Quesadilla. The program has incorporated local and regional foods into the Food Zoo, university dining services' all-you-care-to-eat venue. For more information go to <http://www.umt.edu/SA/UDS/index.cfm/page/917>.

Yale Sustainable Food Project, New Haven, Connecticut - The Yale Sustainable Food Project was founded in 2001 by Yale students, faculty, and staff, President Richard Levin, and Alice Waters. The Project seeks to nourish a culture in which the pleasures of growing, cooking, and sharing food are integral to each student's experience at Yale. The Project was established with the understanding that many of the world's most important questions regarding health, culture, the environment, and the global economy are deeply connected to what we eat and how it is produced. Food cannot stand apart from agriculture, the environment, or the communities where it is grown. The Project's work underscores Yale's ability to advance local, national, and international dialogue on these global issues. For more information go to <http://www.yale.edu/sustainablefood/index.html>.

Dietetic Education

Food for Thought Cafe, University of Wisconsin-Stevens Point - Small self-operated café which is part of the senior dietetics management course, has a mission statement dedicated to local, sustainable food. It is definitely the taste that wins the customers over. They have embedded the dietetics curriculum with a sustainability thread, including food. Hopefully, our dietetics students will be savvy about working with local farmers, can talk about seasonal diets and plan sustainable systems. For more information go to <http://library.uwsp.edu/news/cafe-name.htm>.

U.S. Food System Course, Montana State University, Bozeman, Montana - This course examines the connections among the food industry, agriculture, and the environment and considers the sustainability of food choices. Students gain a systems perspective on current nutrition problems such as hunger, obesity, and disordered eating. Students conduct independent research. For more information go to <http://www.montana.edu/wwwcat/courses/hdfn.html#HDFN%20351>.

Retail Food Service Management

Bon Appétit Sustainable Policies, Palo Alto, California - Bon Appétit has become a model for what is possible in sustainable food service. Bon Appétit Management Company was the first food service company to address the issues related to where our food comes from and how it is grown. They are the largest restaurant company with a high level of commitment to socially responsible practices. Bon Appétit is unique in that their sustainable principles apply to all cafés, not just specific “green” locations. Their programs are far reaching and meaningful. The *Farm-To-Table* and *Annual Eat Local Challenge Initiatives* focuses on meals that are made completely of ingredients from within a 150 mile radius of the café. Bon Appétit has adopted business policies that support sustainable food systems and they encourage their patrons to find out more about how their food choices impact local and global communities. For more information go to http://www.bamco.com/website/text_resp_eatlocal.html and http://www.bamco.com/PressRoom/sustain_policies.htm.

White Dog Café, Philadelphia, Pennsylvania – White Dog’s mission is to serve our customers, serve the community, serve each other, and to serve the earth. White Dog procures farm fresh, local, organic, humane and sustainable ingredients whenever possible to serve on their seasonal menu. The White Dog Café Foundation focuses on cultivating a Philadelphia regional economy that is inclusive, just, environmentally healthy, and based on local business ownership. The Foundation creates, strengthens, and connects locally owned businesses and farms that provide essential human needs to the region; support minority entrepreneurs in this new economy; and educate the public about the benefits and responsibilities of building a local living economy. <http://www.whitedog.com/>.

Xanterra Parks and Resorts, Greenwood Village, Colorado – Xanterra is the largest national and state park concessioner in the United States and has integrated sustainably raised foods in their foodservice. Within six years Xanterra went from purchasing no sustainably raised food to now purchasing more than \$1.4 million in sustainable produce, seafood, dairy products, and coffee. Xanterra is a member of the Chef’s Collaborative and was the first U.S. hospitality company to be granted the “Chain of Custody” certification from the Marine Stewardship Council. For more information go to <http://www.xanterra.com/Sustainable-Cuisine-385.html>.

Correctional Facilities

San Francisco County Jail, San Francisco, California – The Garden Project provides inmates with education and garden plots to grow their own food. The inmates learn about nutrition, health, working together, and responsibility. Within two years of beginning the Garden Project, the recidivism rate of inmates decreased from 55% to 24%. The vegetables grown by The Garden Project Apprentices are distributed at community centers to needy seniors and families. The vegetables help to support cooking classes. The plants start in the greenhouse are donated to schools and other community organizations. Each year The Garden Project delivers hundreds of Halloween pumpkins to police stations that distribute the pumpkins to needy families. For more information go to <http://www.gardenproject.org/thegardenproject.htm>.

Distributors/Purchasers

MedAssets and United Natural Food Incorporated - In July 2006, MedAssets, a leading group purchasing organization, purchased more than \$200 million worth of food and supplies from United Natural Food Incorporated, the largest publicly traded wholesale distributor of natural and organic foods. This partnership brought an increased awareness in the healthcare industry about the health impacts of current large-scale agribusiness practices to more than 2,400 hospitals in the U.S. For more information go to <http://www.unfi.com/> or <http://www.medassets.com/>.

Policies

Eat Healthy Rebate, Physicians Plus Insurance Corporation, Madison, Wisconsin - With the Eat Healthy Rebate program from Physicians Plus Insurance Corp., members can apply their Good Health Bonus rebate to the cost of a produce share from Madison Area Community Supported Agriculture Coalition (MACSAC) farms. To be eligible for the Eat Healthy Rebate, members must order a produce share (meat, eggs and dairy purchases are not eligible for reimbursement) from a MACSAC farm and make a minimum payment (excluding public or private assistance programs) equal to or greater than the rebate amount for which you are eligible (\$100 for single contracts, \$200 for family contracts). For more information go to <http://www.pplusic.com/about/index.asp?cid=25&scid=210> or <http://www.macsac.org/>.

USDA Farmers Market Promotion Program (FMPP) - The FMPP was created through an amendment of the Farmer-to-Consumer Direct Marketing Act of 1976. The grants, authorized by the FMPP, are targeted to help improve and expand domestic farmers markets, roadside stands, community-supported agriculture programs and other direct producer-to-consumer market opportunities. Approximately \$1 million was allocated for fiscal year 2006 for the FMPP, with the requirement that the maximum amount awarded for any one proposal could not exceed \$75,000. Entities eligible to apply include agricultural cooperatives, local governments, nonprofit corporations, public health corporations, economic development corporations, regional farmers market authorities and Tribal government. For more information go to <http://www.ams.usda.gov/farmersmarkets/FMPP/FMPPInfo.htm>.

Local Food Purchase Policy, Woodbury County, Iowa - The Woodbury County Board of Supervisors adopted a local food purchase resolution that mandates the purchase of locally grown organic food, grown and processed within 100 miles, through its county food service contractor. This initiative followed the Organic Conversion policy passed by the Woodbury County Board of Supervisors to provide tax incentives for producers to transition to organic production. For more information go to <http://www.woodburyiowa.com/departments/economicdevelopment/>.

Section VII. Glossary

A) Community-Based Food System

A locally owned and controlled food system that is environmentally sound and health promoting; a system in which sustainable food production, processing, distribution and consumption are integrated to enhance the environmental, economic, social and nutritional health of a particular place (1, 2).

B) Community Food Security

A situation in which all community residents obtain a safe, culturally acceptable, nutritionally adequate diet through a sustainable food system that maximizes community self-reliance and social justice (3).

C) Community Supported Agriculture (CSA)

CSA consists of a community of individuals who pledge support to a farm operation so that the farmland becomes, either legally or spiritually, the community's farm, with the growers and consumers providing mutual support and sharing the risks and benefits of food production. Members or "share-holders" of the CSA pledge in advance to cover the anticipated costs of the farm operation and farmer's salary. In return, they receive shares in the farm's bounty throughout the growing season, as well as satisfaction gained from reconnecting to the land and participating directly in food production. Members also share in the risks of farming, including poor harvests due to unfavorable weather or pests. By direct sales to community members, who have provided the farmer with working capital in advance, growers receive better prices for their crops, gain some financial security, and are relieved of much of the burden of marketing (4).

D) Food Citizenship

Rights related to food choices that are associated with living in a particular place, such as the right to safe unadulterated food or truthful product information, and the responsibilities that go along with these rights (5).

E) Food Desert or Fresh Food Desert

Populated urban areas, sparsely populated rural areas or low-income neighborhoods where fresh food is nonexistent or too expensive. Residents do not have access to an affordable or healthy diet. This is partially the result of supermarkets closing leaving food availability to convenience stores and fast food outlets. Food deserts may damage public health by restricting availability and affordability of foods that benefit health (6).

F) Food Mile

A food mile is the distance food travels from where it is grown or raised to where it is ultimately purchased by the consumer or end user (7).

G) Food System

The system comprised by all the entities and activities related to our food supply including agricultural production, food processing (transformation), distribution, retail (access), and consumption (8, 9, 10).

H) Local or Regional Foods

The definition of local foods or regional foods is quite flexible and is disputed. Local food production strengthens local economies by protecting small farms, local jobs, and local shops, thereby increasing food security. Local foods may be defined by:

- A very small area such as the size of a city and its surroundings, county or group of counties, or between the borders of a state or country.
- The distance the food has travelled. The wholesale distribution system can confuse the calculations as fresh food that is grown very near to where it will be purchased, may have traveled hundreds of miles through the sectors of the food system before arriving back at a local store.
- Ecoregion or where food production is considered from the perspective of a basic ecological unit defined by its climate, soil, watershed, species and local agricultural systems (11).

I) Organic

Organic production systems rely on ecologically-based practices, such as biological pest management and composting; and virtually exclude use of synthetic chemicals, antibiotics, and hormones in crop production; and prohibit the use of antibiotics and hormones in livestock production. Under organic farming systems, the fundamental components and natural processes of ecosystems – such as soil organism activities, nutrient cycling, and species distribution and competition – are used as farm management tools. Farmers adopt these systems as a way to lower input costs, conserve non-renewable resources, capture high-value markets, and boost farm income (12).

J) Precautionary Principle

A principle stating that precautionary measures should be taken when an activity raises threats of harm to human or environmental health, even when cause and effect relationships have not been fully established scientifically. Components of the principle include taking preventive action in the face of uncertainty, shifting burdens onto proponents of potentially harmful activities, exploring alternatives to harmful actions, and increasing public participation in decision making (13).

K) Rights-Based Food System

A food system that enables everyone involved, from farm-workers to waste-handlers, to achieve their economic, social, cultural, political and civil rights goals. This includes the right to food, just compensation for one's labor, decent working conditions, health, good nutrition, protection of children's space to be children and not exploited laborers, political voice in making decisions that affect one's livelihoods, a clean environment, education and other "goods" that make life worth living (14).

L) Seasonal Diet

A pattern of eating where food choices vary according to what is available for local harvest either directly, through long-term storage or preserved. Foods of animal origin are often available year round.

M) Sustainability

The capacity of being maintained over the long term in order to meet the needs of the present without jeopardizing the ability of future generations to meet their needs. (15).

N) Sustainable Agriculture

Agriculture that over the long-term, enhances the environmental quality and the resource base on which agriculture depends; provides for basic human food and fiber needs; is economically viable; and enhances the quality of life for farmers and society as a whole (16).

O) Sustainable Development

Development which meets the needs of the present without compromising the ability of future generations to meet their needs (17).

P) Sustainable Diet

A diet composed of foods chosen for their contribution not only to health, but also to the sustainability of the agricultural system (18).

Q) Sustainable Food Systems

A Sustainable Food System exists when production, processing, distribution, and consumption are integrated and related practices regenerate rather than degrade natural resources, are socially just and accessible, and support the development of local communities and economies (8, 9).

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Resources & Recommended Reading

Online Learning

Nutritional Health, Food Production, and the Environment; Johns Hopkins Bloomberg School of Public Health - Open Courseware 180.620.81. This online course provides an understanding of the complex and challenging public health issue of food security and in a world where one billion people are under-nourished while another billion are overweight. Explores the connections among diet, the current food production system, the environment and public health, considering factors such as economics, population and equity. Case studies are used to examine these complex relationships and as well as alternative approaches to achieving both local and global food security and the important role public health can play. Guest lecturers include experts from a variety of disciplines and experiences. <http://ocw.jhsph.edu/courses/nutritionalhealthfoodproductionandenvironment/index.cfm>

Food and Nutrition Policy; Johns Hopkins Bloomberg School of Public Health - Open Courseware 222.657.01. The purpose of this online course is to familiarize and engage the student in the steps and dynamics of policy making processes that address nutrition problems and issues. An underlying tenant is that, where ever nutrition problems exist, policy and program options may be enacted to address the problem directly (e.g. food subsidies to the poor) and/or indirectly (e.g. income generation or job creation). <http://ocw.jhsph.edu/courses/FoodNutritionPolicy/index.cfm>

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