Yearly, World Food Day confronts us with the grim statistics of hunger across the world and the challenges to address this enduring problem. The usual approaches have been more agricultural production and better distribution, but the world has changed and is changing radically since the first World Food Day in 1981 and people are looking to new, and sometimes old, ways to reduce hunger.

The most recent statistic of the number of hungry and malnourished people is 925 million, issued by the UN Food and Agriculture Organization (FAO) in October 2010. This figure indicates an increase of people suffering from hunger since 1995-1997, but shows a decrease from the previous year, 2009. The 2011 World Hunger and Poverty Statistics identifies multiple causes of persistence of hunger in the world. Poverty is the principal cause and harmful economic conditions and systems drive poverty and hunger. Conflict compounds hunger and poverty among refugees and internally displaced populations. Climate change is increasingly identified as a current and future cause of hunger and poverty. Add to these immediate causes the fact that governments and international agencies have neglected agriculture relevant to people in poverty for the past 20 to 30 years with the advent of the World Bank and International Monetary Fund’s structural adjustment programs in the Global South.

These multiple factors as well as projections of population growth in the coming decades are driving some rethinking of agriculture as it has been developed over the past half century. A key understanding is the recognition that producing enough food so that all people of the world can potentially be fed is not the same as ensuring food security for all (2011, The Future of Food and Farming, 9). Currently, world agriculture produces enough food to feed everyone; the principle problem is that many people do not have sufficient land to grow, or income to purchase, enough food (2011, World Hunger and Poverty Statistics, 9).
Ending Hunger

While food production itself does not ensure food security, the system of agriculture has a major contribution to make, especially in countries where hunger is chronic. For this to occur, agricultural development must have hunger eradication and rural poverty reduction as primary goals. To reverse the past 20-30 years of neglect, agriculture needs to be “repositioned within governments as a profession dedicated to multiple ends, of which hunger and poverty reduction are central” (2011, *The Future of Food and Farming*, 25). For most of the countries of the Global South, agriculture must again become central to development.

This evolution will require changing the formal and informal training of professionals in agricultural development and elevating the role of Ministries of Agricultural in governments. Innovation in research needs to involve producers in improving yields sustainably and in defining and monitoring success. Improving agricultural extension services with a concerted effort to include representatives of farmers and groups experiencing chronic hunger is essential. Smallholder farmers, including women farmers, have long been neglected and unrecognized as important components of both hunger and poverty reduction. Focusing technologies, institutions, infrastructure and information on small holders can improve access to food for all by raising farm income, generating employment on and off the farm and reducing food prices (2011. *The Future of Food and Farming*, 25).

Addressing Environmental Issues

Many current systems of food production are unsustainable, degrading the environment, compromising the world's capacity to produce food in the future, contributing to climate change and destroying bio-diversity.

There are widespread problems with soil loss due to erosion, loss of soil fertility, salination and other forms of degradation; rates of water extraction for irrigation are exceeding rates of replenishment in many places; over-fishing is a widespread concern; and there is heavy reliance on fossil fuel-derived energy for synthesis of nitrogen fertilizers and pesticides. In addition, food production systems frequently emit significant quantities of greenhouse gases and release other pollutants that accumulate in the environment (2011. *The Future of Food and Farming*, 10).

Food production models need to respond to these changes with systems that will promote and develop food and livelihood sustainability for the present and future and protect bio-diversity. Communities need access to knowledge of systems that use less external input and depend less on fossil fuels. These changes are creating a revolution in agriculture as worldwide farmers and consumers are moving toward greater localization, organic gardening and systems of agroecology.

Localization: Although many countries in Africa, Asia and Latin America are reinvesting in the small, local producer and developing local and regional markets, the direction of agricultural localization is not confined to the Global South. In the United States over the past five years there has been a rise of nearly 30% in the number of new small farms, many of them run by women. There has also been a resurgence of urban gardening and community gardening. The growth is reversing a century-long trend of farm consolidation and the development of industrial modes of farming.

Many of the new farms cater to a growing number of local markets, to traditional farmers markets and road-side stands. The growing consumer demand for fresh, seasonal produce is also leading super markets to contract with local farmers for seasonal fruits and vegetables. Local school districts and colleges and universities are contracting with local farmers for local produce (2011. Brown. *Book Bytes: the Localization of Agriculture*, 1).

Organic Farming: The organic farming movement and growth of small farms and local markets are not
identical, but they mutually support one another. Many local farmers markets are primarily organic or use a pest management control system that greatly reduces the use of chemical fertilizers and pesticides. As agriculture localizes more, it is likely that livestock production will move away from factory-like systems to more traditional mixed crop-livestock operations. This system will facilitate nutrient recycling as local farmers return to livestock manure to fertilize the land. This will also reduce the amount of methane gas released into the atmosphere by large factory farms contributing to climate change.

Organic farming is not restricted to the wealthier nations. Nor is it less efficient in addressing the problems of hunger. Evidence from research on efforts adopting organic farming in Africa shows that over time food availability actually increases. A recent study by UN Conference on Trade and Development (UNCTAD) and the UN Environment Program (UNEP), “Organic Agriculture and Food Security in Africa,” shows that organic farming increases access to food on several levels. “First, increased quantity of food produced per farm leads to household food security which results in all members of the household having access to enough food. Second, the production and selling of food surpluses at local markets mean that farmers benefit from higher incomes, which increases their purchasing power. Third, fresh organic produce becomes available to more people in the wider community. Finally, organic farming enables new and different groups in the community to be involved in agricultural production...” (2008).

Agroecology: Agroecology is a farming system that increases the resiliency and sustainability of food systems. It is increasingly supported by a wide range of experts within the scientific community and by a growing number of international agencies such as the UN Food and Agriculture Organization (FAO) and Biodiversity International. It is also gaining attention in a number of diverse countries, including Brazil, the U.S., Germany and France.

According to Miguel Altieri, one of its leading proponents “Agroecology is a scientific discipline that uses ecological theory to study, design, manage and evaluate agricultural systems that are productive but also resource conserving. It is concerned with the maintenance of a productive agriculture that sustains yields and optimizes the use of local resources while minimizing the negative environmental and socio-economic impacts of modern technologies. To put agroecological technologies into practice requires technological innovations, agriculture policy changes, socio-economic changes, but mostly a deeper understanding of the complex long-term interactions among resources, people and their environment. To attain this understanding agriculture must be conceived of as an ecological system as well as a human dominated socio-economic system” (2011. Quoted in Agriculture and Climate Change, 3).

The core principles of agroecology include recycling nutrients and energy on the farm, rather than introducing external inputs; integrating crops and livestock; diversifying species and genetic resources in agroecosystems over time and space. It is highly knowledge-intensive, based on techniques that are not delivered top-down but developed on the basis of farmers’ knowledge and experimentation (2010. De Schutter. Report submitted by the Special Rapporteur on the right to food, 60). Oliver De Schutter, the UN Human Rights Council Special Rapporteur on the right to food has identified agroecology, the development of local markets and accountability of decision makers as key elements of solving the hunger and poverty crisis (2011. Lecture. “Food Systems, Famines and Human Rights”).

The organic and agroecology food movements are propelled by a growing concern of people over the quality of food produced through mono-cropping at large agro-industrial farms. The intensive use of chemicals in fertilizer and pesticides as well as the growing number of incidents of food related illness in industrial nations has led an increasing number of people to seek alternatives in organic foods and local markets.

Future Sustainability

Current challenges to ensure food security for all the people of the world is compounded with the necessity to also ensure sustainability for future generations. The world’s commons—land, water, air, bio-diversity—are a sacred trust in each generation to be passed on to all future generations.
“The principle of sustainability implies the use of resources at rates that do not exceed the capacity of the earth to replace them” (2011, *The Future of Food and Farming*, 31). Water must be consumed only at the rates that rainfall and other inflows can replenish water basins. Soil degradation and bio-diversity loss must be restored. Food systems must be resilient enough to withstand weather and other shocks.

Thus, it is imperative that systems of agriculture are regenerative of Earth and all its resources; that renewable energy systems are put in place to reduce CO2 in the atmosphere. Non-renewable resources must not be squandered as consumer items.

The moral imperative to address global hunger and climate change is clear. Growing numbers of people are aware, changing behaviors and taking action. Outlines of the future are emerging but concerted action to address these problems is required on many levels of society and across countries. But at the present time political will and leadership are lacking to move the agenda for the future forward. Calling forth that leadership is the first task of facing the future.

**What can you do?**

While reversing the direction of corporate agriculture seems an enormous task, there are clear signs that a growing number of people across the globe are changing their consumption habits. As this number increases, the call for a new system will gain political power. The individual and family consumer is a major player in that move. To become involved, if you are not already:

Support local farmers and farmer’s markets;
Purchase organic foods and ask stores to stock them;
Use scarce resources such as water sparingly;
Support moving farm subsidies away from agribusiness into local organic farming;
Live sustainably—reduce consumerism.

**Resources Consulted**


