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Book Review: Sustainable Agriculture and Food Security in an Era of Oil Scarcity: Lessons from Cuba

Michelle L. Kaiser

How does a nation whose food production is dependent upon imported supplies change to a locally sustainable system to achieve food security? Julia Wright provides enlightening, well-researched documentation of Cuba's rapid shift from an industrialized food system dependent upon energy inputs in the form of petrol, oil, and fertilizers, back to a traditional agrarian system, a change brought about by the end of the USSR. Wright provides relevant and timely lessons in terms of peak oil usage and climate change.

Cuba's food system was modeled after those of the United States and the United Kingdom. Agricultural systems that are highly mechanized and part of "supply chain management" yield crops in the most efficient ways possible. Supply chain management occurs when companies own the food production chain, from agricultural development to processing, distribution, and marketing. This assembly line model relies upon oil and chemicals in its farm machinery, fertilizers, processing equipment, transportation, and storage. Between 1990 and 1993, following the fall of the Soviet Union, pesticide and fertilizer imports decreased by 80%, petrol decreased by 75%, diesel decreased by 47%, and food imports decreased by 50%. This resulted in a 40% reduction in calorie intake, and a decrease in production of pork (69%), powdered milk (89%), chicken (82%), and vegetables (40%) between 1989 and 1994. By 1999, sustainable production practices and state priorities resulted in an increased root and tuber production (80%), and horticultural crops (200%), while meat and milk were produced at half the rate prior to the reduction of Soviet inputs. Cuba now uses seven barrels of energy (BOE) per person annually, compared to 57 BOE for people in the United States (http://www.powerofcommunity.org).

The government declared a state of emergency and required solutions from Cuban farmers with pre-revolutionary, indigenous, biological, historical, and ecological knowledge. The book details the mandated changes to agriculture and the subsequent environmental, economic, and health consequences of this changeover.

Wright, a British citizen with a varied and extensive educational background, completed her undergraduate work in rural environmental studies and her graduate work in land and water management, sustainable agriculture, and communication and innovation studies. She is self-described as a food-systems specialist focusing on organic agriculture.

Her initial interest in the reasons that organic farming was not practiced universally lead to 10 years of study of global agriculture. When the USSR dissolved, Wright realized that research in Cuba could provide valuable lessons about that country's shift to organic agriculture and the struggle to feed their nation. The multidisciplinary research project was developed to determine the kind of food system Cuba developed, how Cuba managed the transition from the industrialized system to the low-petroleum system, and how this achieved food security. The research was guided by the Cuban National Institute of Agricultural Sciences, supported by the Ministry of Higher Education, and conducted with 414 Cubans in three urban and rural provinces representing households, farms, agricultural extension offices, educational centers, and governmental agencies. Data were also collected from conferences, workshops, study tours, libraries, and governmental centers in Cuba over a period of three years.

Wright's work is based in the ecological-social perspective, tying in environmental and public health issues, along with economic, social, and sustainable development. Although her back-

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ground is in organic agriculture, her intent is not to convince the reader of a particular way of life, but to document ways in which communities and nations can become "food secure." Food security, Wright explains, means self-sufficient communities that produce enough affordable food to meet the health needs of its population in the most environmentally friendly manner. Wright devotes much of the book to Cuban-specific food security strategies and the transition to a decentralized system. This provides readers with a comparative foundation for understanding how systems can change.

The final two chapters provide perspectives on the adoption of organic innovations, and provide a well-rounded and objective portrayal of the strengths and challenges associated specifically with Cuba's system. They also offer comment on the challenges facing organic agricultural in general, emphasizing the need for both experimental and experiential learning. She encourages readers to develop their ecological literacy, which is also important for social workers who are often involved in social-justice issues related to environmental injustices and food insecurity, which disproportionately affect impoverished clients.

Although Wright clearly comes from an organic agriculture background, she shows objectivity and restraint in attributing better results to an organic agricultural system. She stays away from scientific jargon, using a balanced combination of qualitative and quantitative data. Her emphasis is on quality of life and the sustainable population size that the natural ecosystem can support.

Wright masterfully crafts Cuba's story, but many readers have concerns based in history and politics. The question may be how to utilize Cuba's lessons in a democratic society with large populations and greater land mass. Americans and other high consumption populations desiring to have little governmental involvement may face additional complex challenges as they develop community food security initiatives. Wright does not discuss these, as they are not her focus. Additionally, her food-adequacy measure focuses on quantity rather than quality, although intuitively her interest in nutrition shows concern for quality and for particular types of foods.

A major strength of Wright's book is its accessibility. Community planners can use it as a tool to develop community food-security models. Faculty members can use it in discussions concerning ecology as related to social issues. It is a "must-read" for those interested in ways to achieve better public health, more equitable distribution of economic and social resources, or for anyone wanting to understand Cuba today.

The book is an excellent objective starting point for anyone interested in understanding the industrialized food systems and alternative strategies to develop community food security in light of social and environmental determinants. Countries reliant upon corporate farming and imported energy must take action to prevent a food-security crisis. Adopting community food-security models diversifies agricultural land to reduce the risk of crop loss from disease, environmental degradation, and climate change. Emphasizing local farm knowledge is vital to sustaining food systems in different geographic regions.

Consumers, producers, and policy-makers must be cognizant of the relationship between food, the environment, and human health. They must fund alternative production and distribution methods – ones that are more affordable and accessible, such as expansion of organic farming, community support of agriculture projects, and farmers' markets. It has been predicted that oil production will peak in the near future. Decreasing our dependence on oil is no longer a choice. Countries can learn from Cuba's experience.

Reference

Arthur Morgan Institute for Community Scholars. (2010). *The Power of Community: How Cuba Survived Peak Oil.* Retrieved on July 8, 2010 from http://www.powerofcommunity.org/cm/index.php