## Is Cuba the future of farming?

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By Greg Watson APRIL 15, 2015

In 2006, the World Wildlife Fund identified Cuba as the only country in the world to achieve sustainable development. This was, in large part, due to the country's involuntary adoption and ultimate promotion of agroecology — farming practices that dramatically reduce or eliminate the use of chemical fertilizers or pesticides. In some cases, those substances have been found to be harmful to humans and the environment.

Cuba's preeminent role in sustainable agriculture was a result of the collapse of the Soviet bloc and the immediate disinvestment in its Soviet-subsidized petroleum-based agriculture infrastructure. Cubans were faced with the choice of finding ways to grow food without chemical fertilizers and pesticides, or starving. Sustainable agriculture became the only option for feeding themselves.

Now Cuba is opening its doors to American commerce for the first time in over a half century. US businesses from every sector imaginable are eager to tap this new international market, a mere

45-minute flight out of Miami. There are many farming interests with designs on Cuba, waiting for it to open up to US markets and considering ways to dramatically increase production by re-introducing widespread industrial agribusiness and "modern" biotechnology practices. Sadly, and unbeknownst to the majority of Americans, a beacon pointing the way to healthy, sustainable farming systems could be swallowed up and lost in the process.

The results of Cuba's agroecology survival strategy are difficult to measure. Some estimate that as much as 60 percent of the vegetables and fruit consumed in Havana are supplied by indigenous urban farmers. Others say that's an exaggeration. But there is little argument that Cuba is home to the most valuable demonstration of chemical-free farming in the world. Much of what has been debated for decades regarding the efficacy and economic viability of the wide-scale adoption of organic farming methods has been field-tested in Cuba since the collapse of Russia in 1989.

In October, I visited Cuba as a member of an agricultural delegation organized bv Schumacher Center for New Economics — based in Barrington — and supported Great Christopher Reynolds Foundation. Because of the embargo, I was unable to travel in my official capacity at the time — commissioner of the Massachusetts Department Agricultural of Resources. That's unfortunate, because the visit was relevant to the state's agricultural interests - in particular our newly established statewide urban agriculture initiative. Like everyone else at the time, we were unaware that President Obama and President Castro were on the verge of making their historic announcement to restore diplomatic relations between the two countries.

The fact that Cuba's decades-long validation of farming without petroleum-based fertilizers and pesticides was not initially driven by environmental concerns doesn't diminish its role as a world leader in ecological or organic and urban agriculture. What it's been able to achieve transcends politics and ideology.

In the late 1990s and early 2000s, agricultural production rebounded, and Cuba achieved the best agricultural growth rate of any Latin American country. Much of that can be attributed to the adoption of policies that encouraged individual and cooperative forms of production beginning in the '90s. Overly bureaucratic state-run farms were replaced with thousands of small urban suburban organoponicos, parcelas, and gardens, and millions of acres of unused state land were given to workers for small-scale farming. Resource use and food production strategies were typically determined at the local level rather than centrally via a farmer-to-farmer network involving more than 120,000 families.

I was impressed with what I saw during my six-day tour of the Cuban agricultural system: beautiful, healthy produce grown in urban, suburban, and rural communities without petroleum-based

fertilizers and pesticides. Equally impressive and more surprising were the candid conversations I had with people regarding changes taking place in the country. Many of our interlocutors spoke of the economic failures of socialism while also reminding us of the ethical shortcomings of capitalism. Cuban officials, intellectuals, and activists are all searching for a new economic model – somewhere between these two poles. The agricultural cooperatives may offer a glimpse of such a model.

I was also surprised by how academics, activists, and even some government officials were willing about eager to talk the economic even of Cuban socialism. That shortcomings dissatisfaction in no way implied any sentiment to move to capitalism, but movement is definitely underway - much of it supported by President Raul about public-private There is talk partnerships and the creation of a socialist solidarity economy, the backbone of which are networks of worker-owned cooperatives.

There is a potential glitch — and it's an ironic one. Obama's historic and courageous decision to restore relationships with Cuba is a double-edged sword. It was clear from our discussions with government officials, farmers, and activists that the embargo has severely hurt the Cuban economy and its people. And while there was near unanimous support for lifting the embargo, it was also acknowledged that doing so could undermine the country's culture — and agriculture.

this more prominent than in Nowhere is sector. cooperatives agricultural where are increasing and flourishing. One reason for this growth is the Cuban government's relaxed policy allowing free access to land for anyone growing food for local consumption. That includes offering it for sale to public institutions like schools and hospitals. Another is affordability - since being forcefully weaned from chemical fertilizers and pesticides, the honed "post-petroleum" has proven cultivation techniques which enable Cubans with little or no means beyond the farm to invest in their operations' ongoing viability.

US agricultural and trade policies should explicitly promote Cuba's private sector cooperatives and make them eligible for all incentives relevant to private businesses. American nonprofits, for example, should be able to partner with Cuban cooperatives and crowdfund for them over the Internet. Cuba, for its part, should go even further with land reforms by retiring its usufruct system and offering cooperatives control of the land they farm, instead of just free use.

These are modest but potentially significant measures that should be considered at the outset so Cuba may open its doors to the US without closing them on the island country's future.

Greg Watson is director for policy and systems design at the Schumacher Center for a new Economics in Great Barrington, and a former commissioner of the Massachusetts Department of

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