THE NUMBERS DIET: FOOD IMPORTS AS ECONOMIC INDICATORS

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In April 2009, the *International Herald Tribune* published an opinion piece by Dennis Avery titled, "Cubans Starve on a Diet of Lies," in which Avery described Cuba's recent agricultural success as "a great, gaudy, Communist-style Big Lie."[1] Avery, an economist with the Hudson Institute, a conservative U.S.-based think tank, criticized Cuba for a recent (un-cited) admission by a "senior Ministry of Agriculture official" that the island nation imports 84% of its food, "including rice, wheat, corn and soy oil." Avery goes on to write that Cuba's famed urban farmers "only make about 150 pesos per month. Still, there's even less to buy in Cuba than in the old Soviet Union—including almost no meat and little milk. They mainly subsist on rice and beans." Finally, Avery concludes with a vague comparison to the United States: "Should America force its people to spend their days hand-weeding vegetables in a field that should have been a hospital?," he writes, referring to an un-named Cuban urban farm he said was built on land dedicated for a hospital. "Should our food be rationed like Cuba's? Instead, 3% [sic] of Americans grow the food, on far less expensive land."[2]

Almost immediately, Fernando Funes Aguilar, a well-known Cuban agronomist, responded with an open letter to Avery, posted on the website of the Institute for Food and Development Policy-Food First, a liberal U.S.-based NGO. In the letter, Funes highlights several Cuban accomplishments in public health and food production, but he counters Avery's food import figure with an un-cited one of his own, 55% in 2008.[3] That, he said, was largely because Cuban agriculture suffered at the hands of three hurricanes the previous year.

In May of 2009, Funes teamed with his regular co-contributors, Miguel Altieri of the University of California Berkeley and the Latin American Scientific Society of Agroecology, and Peter Rosset of the Land Research Action Network, to write an article disproving Avery's assertions on the state of Cuba's agriculture. Funes, Altieri and Rossett have written frequently on the state of Cuba's agriculture, and some argue they are premier experts in the field.

It is interesting that Funes, Altieri and Rossett chose to respond to Avery at all, given that Avery's piece was intellectually sloppy, misguided and lacking support. Avery claims to draw his information on Cuba from two environmentalists he refers to as "useful idiots in the non-Communist world,"[4] the late Donella

1. Avery, D., 2009. "Cubans Starve on a Diet of Lies." Center for Global Food Issues. http://www.cgfi.org/2009/04/cubans-starve-on-diet-of-lies-by-dennis-t-avery/. Accessed on 9 July 2010

2. Ibid.

3. "Response to an article by Dennis Avery titled 'Cubans Starve on a Diet of Lies,'" http://www.foodfirst.org/en/node/2452. Accessed 12 July 2010.

4. Avery, 2009.

Meadows and Bill McKibbon, whose work on Cuba consists of a 2005 overview piece in *Harpers.*[5]

Nevertheless, Funes et al, countered with "The Avery Diet: The Hudson Institute's Misinformation Campaign Against Cuban Agriculture," which is lightly supported with only three citations, one of which was edited by Funes and Rossett.[6] The authors touch on the idea of imports as economic indicators and the notion that closer examination is needed. They wrote:

> The variety in import amounts reveals a much more nuanced view of Cuba's agricultural strengths and weaknesses after more than a decade of technological bias toward ecological farming techniques. … Great successes have clearly been achieved in root crops, a staple of the Cuban diet, and in sugar and other sweeteners, vegetables, fruit, eggs, and seafood. Meat is an intermediate case, while large amounts of cooking oil, cereals and legumes (principally rice for human consumption, and corn and soybeans for livestock) continue to be imported. The same is true for powdered milk, which does not appear on the graph. Total import dependency, however, is a mere 16%, ironically the exact inverse of the 84% figure cited by Avery. Is it possible he inadvertently reversed his figures? [7]

The authors also note that "food dependency is actually the norm for developing countries, a fact which Avery conveniently fails to mention."[8]

Using vague percentages such as these does not support a complex argument. Here, Funes, et al. inadvertently demonstrate the arbitrary and convoluted nature of these figures:

> It has been widely reported in the media that Megalys Calvo, Vice Minister of the Economy and Planning Ministry, said in February of 2007 that 84% of items "in the basic food basket" at that time were imported. However, we believe these percentages represent only the food that is distributed through regulated government channels by means of a ration card. Overall data show that Cuba's food import dependency has been dropping for decades, despite brief upturns due to natural and human-made disasters."[9]

The problem with this debate lies with using numbers as complete indicators of agricultural success, largely because these import figures do not tell the whole story of geography, politics, agricultural development and dietary preferences. The numbers are not irrelevant, but they need to be better explained. There needs to be a more thoughtful analysis in order to accurately analyze Cuba's agricultural systems.

Also important to this discussion is the assumption that zero imported food is the ultimate goal. Will zero imports mean food security for Cuba, or any nation? Are those relying on import and export figures also considering the fact that national food sustainability means a significant shift in diet, culture, production and other trends? What about the fact that national food security, or increased production levels, have nothing to do with distribution within the country?

Additionally, Cuba's political history and geographic location create a unique situation. Import numbers are more relevant when considered in the context of Cuba's 1960s agricultural revolution, the fall of the Soviet Union, and The Special Period. To that end, Cuba's warm climate, autonomous island location and year-round growing season allow some crops and commodities to flourish (sugar, citrus, tubers) and

5. McKibbon, B., 2005. "The Cuban Diet: What Will You Be Eating When the Revolution Comes?," Harpers, April.

6. Funes, F., M.A. Altieri, and P.M. Rosset. 2009. "The Avery Diet: The Hudson Institute's Misinformation Campaign Against Cuban Agriculture." http://www.landaction.org/spip/spip.php?article422. Accessed 9 July 2010. See also http://globalalternatives.org/files/AveryCubaDiet.pdf. Accessed 12 July 2010.

7. Ibid.

8. Ibid.

9. Ibid. The figures cited by Calvo are from Food and Agriculture Organization of the United Nations (FAO), 2006. The State of Food and Agriculture. Rome: FAO.

others, such as growth of animal proteins (milk, meat), to struggle.[10]

Hagelberg and Alvarez were correct to explain why corn and wheat are imported in large quantities to Cuba and other Caribbean nations.

> Like the smaller Caribbean islands, Cuba is to a significant degree dependent on food imports because of dietary customs. Grains are by far the largest item on the food import bill allowing to the fact that bread is an essential part of breakfast, though wheat and rye can not be commercially grown in the country, and no lunch or dinner is complete without rice, of which there is a domestic deficit.[11]

Furthermore, Hagelberg and Alvarez write, "Droughts and hurricanes have made it difficult to disentangle the effect of policies and management practices from the impact of natural phenomena on the performance of the agricultural sector."[12] More consideration like this would allow for a greater understanding of the country's situation.

The pulse of Cuba's agricultural success cannot be taken by considering food import figures alone. Such numbers are often misleading, and one must maintain a broad understanding of Cuba and what the farming community is capable of producing given its political, social and geographic restrictions. Also, comparing Cuba with other Caribbean nations—where large-scale agriculture is nearly non-existent—is a much better indicator of the island's agricultural abilities than taking import statistics at face value—or worse, comparing them to the United States, as Avery did. In fact, Cuba's largest agricultural product is sugar cane, followed by various vegetables, fruits, cow's milk and eggs.[13] Keeping in mind Cuba's landmass versus the size of neighboring islands, as well as its high ratio of arable land, Cuba is producing more varieties of produce, in larger quantities, than any other Caribbean nation.[14]

For the purpose of this paper, I will focus the argument solely on the progress made within Cuba's agricultural sector, of which innovation has been a keystone since the early 1990s. While some may argue that such experimentation is a waste of resources,[15] a number of progressive farming techniques have come from this research (as well as subsequent agro- and eco-tourism). And, in the decade following the Special Period, defined for this paper as 1990 to 1995, Cuba demonstrated a 4.2% annual growth, per capita, in food production,[16] likely a result of agricultural innovation and restructure following the collapse of Cuba's primary trading partner, the Soviet Union.

"Indio Hatuey," an experimental research station at the Universidad de Matanzas, is home to some of the most progressive agricultural research in Cuba. For example, its Pasture and Forage Experiment Station has developed techniques to integrate cattle with other farming activities. In the 1990s, animal protein production suffered in Cuba as the Soviet-era large farms—which relied on imported feed—struggled to repopulate using severely limited inputs. Agro-ecological advancements stuttered at first during the Special Period, as farmers and researches dealt with the intensity of grazing animals, nutrient weak grasses, and the simple time required to repopulate herds.[17]

One of the integrated crop-livestock systems that came from the work at Indio Hatuey involves grazing cattle in fields also planted with legume trees, which offer shade for the grass and animals, and fix nitrogen

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10. Martin, G.L., H. Machado, F. Blanco, M. Milera, F. Funes-Monzote, J. Suárez, 2009. "Evolución del Modelo de Gestión Positivista de la Ciencia a un Modelo de Gestión Contexto Céntrico, en la Estación Experimental de Pastos y Forrajes 'Indio Hatuey.'" Agrodesarrollo 2009: Il Simposio Científico-Técnico, May 2009
11. Hagelberg, G.B. and J. Alvarez. "Cuban Agriculture: The Return of the Campesinado." *Cuba in Transition—Volume 19:* 2009.
12. Ibid.
13. http://faostat.fao.org/site/339/default.aspx Accessed 10 July 2010
14. Ibid.
15. Alvarez, José, 2004. *Cuba's Agricultural Sector.* University Press of Florida,
16. FAO 2006.
17. Funes, F., 2001. "The Organic Farming Movement in Cuba." *Sustainable Agriculture and Resistance.* pp. 17–18.

in the soil. The shade, in turn, slows grass growth, providing more nutrient-dense food for the cattle. A similar system was developed with horses grazing among citrus orchards. The grazing horses eliminate any need for weeding or mowing between trees. In both instances, the animals recycled organic matter directly, limiting the need to truck in manure from other areas (one of the most costly parts of Cuba's organic farming).[18] Systems like these, which improve soil quality and animal health, do not necessarily immediately offer higher crop yields. According to Monzote and Funes-Monzote, "Among other advantages often found in complex systems are a reduction of vulnerability to pests, diseases, and weeds, a lower dependency on external inputs, lower capital requirements, and a greater efficiency of land use."[19]

A hallmark of agro-ecology is the idea that diversity increases efficiency and minimizes risk.[20] While industrial mono-cropping is still prevalent in Cuba—especially with export crops like sugarcane—many small farms, both urban and rural, have embraced diversified techniques.[21] Part of the diversification often includes on-site farmstands, where sale of goods is only loosely regulated by the government. Produce is purchased there to supplement the government issued food rations, and therefore may not be figured into national consumption figures.[22]

While total agricultural food production in Cuba, excluding sugarcane, is estimated at 2.2 million tons in 2008,[23] Cuba is not equipped to produce some agricultural products that are commonly consumed. In 2003 the country imported nearly 85% of its consumption of vegetable oil.[24] According to a 2004 report from the Foreign Agricultural Service of the U.S. Department of Agriculture (USDA), "There is no indigenous oilseed production in Cuba, which leads to dependency on imports of protein meal for feed use and vegetable oil for food use. There is also no modern processing plant in Cuba, which limits potential for whole oilseed imports."[25] At the time the USDA published its report, Cuba was importing about 15,000 metric tons of soybeans each year to produce soymilk and some soy oil. Soybean production is limited in Cuba because soybeans do not grow well in warm, humid climates.[26]

Key to this discussion is the idea that higher yield food production in Cuba may never become a reality under the Castro regime. The downside of the Cuban sensibility and the socialist influence often means that while high ideas are often conceived, there is little incentive to bring most to fruition, especially now that overall production has diversified and increased since the Special Period.[27] Fernando Funes-Monzote, a Cuban scholar in agronomy and son of Funes Aguilar, said in 2006 that he believes the Cubans have met a need to produce more food in an economic and sustainable fashion but, in recent years, innovation among farmers slowed (this is obvi-

18. Monzote, M., F. Funes-Monzote, 2001. "The Integration of Crops and Livestock." *Sustainable Agriculture and Resistance.* p. 200.

19. Ibid. See also Rossett, P.M., 1998. La Crisis de la Agricultura Convencional, la Sustitución de Insumos, y el Enfoque Agroecológico. Food First Policy Brief No. 3, Institute for Food and Development Policy, Oakland, Ca.

20. Funes-Monzote, F. P. Tittonell, and S. Lopez-Ridaura. 2009. "La Diversidad y Eficiencia de los Sistemas Agrícolas, Elementos Clave Para la Intensificación Agroecológica." Agrodesarrollo 2009: Il Simposio Científico-Técnico, May

21. Altieri, Miguel A., Nelson Companioni, Kristina Cañizares, Catherine Murphy, Peter Rosset, Martin Bourque, and Clara I. Nicholls, 1999. "The Greening of the "Barrios": Urban Agriculture for Food Security in Cuba." *Agriculture and Human Values* 16: 131–140.

22. Ibid.

23. Oficina Nacional de Estadísticas, 2008. Anuario, Estadístico de Cuba, Producción agrícola por cultivos seleccionados de la agricultura no cañera, http://www.one.cu/aec2008/esp/09_tabla_cuadro.htm.

24. FAO Food Balance Sheet, Cuba, 2003, http://www.faostat.fao.org/site/368/desktopdefault.aspx?PageID=368.

25. Cuba's Oilseeds and Products Market. Fact Sheet. 2004. http://www.fas.usda.gov/info/factsheets/cuba/oilseeds.html. Accessed 9 July 2010.

26. D.A. McWilliams, D.R. Berglund, G.J. Endres. 1999. "Soybean Growth and Management Quick Guide." North Dakota State University.

27. Refers to approximately 1990 to 1995.

ously omitting problems with food transportation and storage—such as refrigeration and added value products). "It was a very idyllic movement until the late 1990s," he said, "but farmers were not given the support [from the government] to continue." Funes-Monzote cites as a reason for lack of innovation the fact that farmers do not own their own land and lack financial incentives to improve their crop yields, though this has changed in the last few years.[28]

Allowing Funes-Monzote's 2006 comments, farmers and middlemen have been given the freedom to sell their products at Mercados Agropecuarios, which has opened many more avenues for agricultural entrepreneurship. In fact, as Cuba moves towards opening its economy, farmers and produce dealers are one of the first sectors to gain rights as small business owners.[29]

Funes-Monzote believes that Cuba is poised for increasing agricultural success—largely because of its political and geographical isolation. "Cuba," he said, "has the possibility to transform agricultural strategy because we don't have pressures from transnational businesses and agreements."[30] As stated earlier, what makes Cuba's agricultural system so unique is that it was born out of a convergence of various factors and situations that allowed it to emerge specifically as it has. As Funes said, "Organic agriculture and agroecology make sense in the Cuban socio-economic context."[31]

When critics or proponents alike argue the state of Cuba's agriculture using simple statistics, they are overlooking the trials of the nation's agricultural infrastructure, and are not providing a complete picture. It is short sighted to assume that high imports in certain areas stem only from unsuccessful agricultural initiatives, and vice versa. The agricultural innovation that has come out of post-Soviet Cuba is unique and its implications are varied. To not look beyond the initial statistics is far worse than Avery's idea of a "great, gaudy, Communist-style Big Lie."

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28. Gifford, L., 2007. "Free Food: An Examination of Cuba's (Un)Sustainable Agriculture." Dartmouth College. See also Torres, R.M., V. Nelson, J.H. Momsen, and D. Niemier, 2010. "Experiment or Transition? Revisiting Food Distribution in Cuban Agromercados from the 'Special Period.'" *Journal of Latin American Geography,* Volume 9, #1.

29. Haven, Paul and Andrea Rodriguez, "Document Charts Cuba's Path to Economic Reform," *Washington Post,* 14 Sept 2010

30. Gifford, L., 2007.

31. Funes, 2001.