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B O O K R E V I E W

Agriculture in Revolutionary Cuba: Achievements and Challenges

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Chan, May Ling, and Roach, Eduardo Francisco Freyre, *Unfinished Puzzle: Cuban Agriculture: The Challenges, Lessons and Opportunities*, Food First Books, Oakland, California, 2012, pp. xiii + 129, \$14.95.

In 2012, Cuba had an estimated population of 11.08 million spread over a geographical area of 109,884 square kilometers, a sex ratio of about 1,010 females per 1,000 males, and a median age of 38.9 years.¹ Its crude birth rate and crude death rate per 1,000 population were, respectively, 9.96 and 7.52. Its infant mortality rate (IMR) was an astonishing 4.83 infant deaths per 1,000 live births, with the IMR for female infants even lower, 4.45 – both numbers distinctly lower than the corresponding rates in the United States.² Cuba's expectation of life at birth was 78 years, 76 for men and 80 for women. Its fertility rate was 1.45 births per female, and its literacy rate for the population aged seven years and above was 99.8 per cent. The percentage of children under five years of age who were underweight was 3.9, and the maternal mortality ratio was 73 per 100,000 live births. The average expected years of formal education over one's lifetime in Cuba was 16 years for males and 19 years for females, with the overall average being 18 years.³

These numbers are enormously significant when one considers the fact that the tiny island-nation, located 150 kilometres from the United States mainland, has been subjected to a comprehensive diplomatic and commercial embargo imposed by the United States in October 1960 and tightened further in the 1990s, and that its key

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¹ By way of comparison, the state of Tamil Nadu in India had a population of 7.21 million in 2011, spread over an area of 130,000 square kilometers.

² In 1957, prior to the start of the Cuban Revolution, the IMR was 32.

³ All demographic data have been taken from the website http://www.indexmundi.com/cuba/demographics_profile.html, the source being the *CIA World Factbook*.

leader, Fidel Castro, has been the target of several (so far unsuccessful) assassination attempts sponsored or actively pursued by the United States.⁴

While the achievements of the Cuban Revolution in the areas of education and health, in the general improvement in living standards of the people of Cuba, in the matter of reduction of social and economic inequalities of various kinds, and with regard to its assistance to progressive and anti-imperialist causes across the world are well recognised, Cuba's achievements and the challenges it faces in the area of agriculture and food are less well known, and constitute the focus of the book under review.

The book, *Unfinished Puzzle*, is sub-titled *Cuban Agriculture: The Challenges, Lessons and Opportunities*. It is generally sympathetic to the cause of the Cuban Revolution, while not entirely in agreement with the policies of the Cuban state in relation to agriculture. The book is divided into three parts. The first of these describes "the socio-economic, political, climatic, and soil characteristics that shape the challenges and opportunities for Cuban agriculture and food security." This part also analyses the patterns of production, consumption, and imports of food over the last two decades or so, including the very difficult "Special Period" that began in 1990. The second part of the book focuses on current agricultural policies in Cuba -- on the major structural changes initiated in the 1990s in land tenure, the role of the state and the cooperative sector, and the emergence of new non-state entities in agriculture. It also deals, *inter alia*, with labour shortages in agriculture, agribusiness in the sugarcane sector, issues related to organic agriculture, and the issue of genetically modified (GM) crops. Finally, it provides a description of new and emerging policy strategies in the recent period. The third and final part of the book, in the words of its authors, "examines the lessons to be learned from the Cuban experience with respect to local development, sustainable agriculture, agroecology, food security, and food sovereignty" (p. viii). In a final chapter, titled "Conclusions," the authors sum up the lessons from the Cuban experience in agriculture.

Cuba carried out far-reaching land reforms in 1959 and 1963, that is, in the early years of the Revolution. The First Agrarian Reform Law of 1959 led to the distribution of 1 million hectares of land to tenant farmers and squatters. Private land came to constitute 39 per cent of the geographical area and 50 per cent of agricultural land. The Second Agrarian Reform Law of 1963 nationalised lands held by the oligarchy and United States corporations. Between 1963 and 1988, state-owned land as a proportion of all agricultural land rose from 60 per cent to 82 per cent. These major agrarian reforms, together with state policies that ensured universal access to health, education, housing, drinking water, and social security in rural and urban Cuba,

⁴ Some idea of why the US imposed and maintained its draconian embargo can be got from the following statement of John F. Kennedy, the US President in 1960: "At the beginning of 1959, United States companies owned about 40 per cent of the Cuban sugar lands – almost all the cattle ranches – 90 per cent of the mines and mineral concessions – 80 per cent of the utilities – practically all the oil industry – and supplied two-thirds of Cuba's imports" (en.wikipedia.org/wiki/Cuba).

made it possible for rural citizens to enjoy among the highest living standards in Latin America, levels of human development that were higher than countries in the region that followed neo-liberal policies dictated by the Washington Consensus and the Bretton Woods twins (the International Monetary Fund and the World Bank).

However, in the face of the crisis caused by the collapse of the USSR and the socialist countries of eastern Europe, and in the light of its own experience with different forms of land relations, Cuba brought about a number of changes in agricultural policies in the late 1980s and through the 1990s. As a result of these policies, the agricultural sector experienced diversification in cropping patterns; increased use of organic means of improving fertility and controlling pests; reduced dependence on external inputs; decentralization of land tenure systems, markets, and decision-making; and higher levels of domestic food production, with correspondingly less reliance on imports.

The book examines the performance of Cuban agriculture through the 1990s and the first decade of the twenty-first century, and concludes that there was rapid growth between 1998 and 2004, following the difficult “Special Period” of the early to mid-1990s. However, there were some setbacks between 2004 and 2006, followed by mild recovery. The book notes that despite the difficulties caused by the collapse of support from the USSR and other Comecon (Council for Mutual Economic Assistance) countries after 1990, and the intensification of the blockade by the United States, Cuba has managed to ensure food security for all Cubans and that no one goes to bed hungry in Cuba.⁵ Food availability decreased sharply from 1989 to 1995; it then began to increase, and, by 2005, average daily calorie intake had risen to 3,356 calories and protein intake to 88 grams. Even during the worst phase of the early 1990s, the authors note, “every Cuban was able to meet 50 to 60 per cent of the daily nutritional requirements through food purchased at subsidised prices, regardless of income or socioeconomic status” (p. 16).

Beginning in 1993, the cooperative sector began to expand. Over a period of time, usufructuary rights in 60 per cent of all state-owned land was distributed to groups of workers. The basic units of cooperative production (UBCP) emerged from this process. By 2007, 37 per cent of all agricultural lands in Cuba were with the UBCP. In 2008 a decree was issued that provided the usufructuary rights to land, up to specified limits, to anyone able and willing to make it productive. Between 2009 and 2011, around one-half of all idle land had thus been distributed under specified regulations to those willing to make productive use of it.

Different types of cooperatives have emerged under conditions of decentralisation, including UBCP, Credit and Service Cooperatives (CCS), and Agricultural Production Cooperatives (CPA). Agricultural producers have been provided with new marketing

⁵ The book notes: “According to Cuban government estimates, the 50-year blockade has resulted in a total of 90 billion US dollars in economic damages” (p. 6).

channels. The sugarcane industry has been restructured. Efforts have been initiated to address the issue of shortage of workers in the countryside by improving amenities in respect of culture and recreation, and by other means. A good deal of local experimentation has been encouraged. Organic production, and the certification of organic production, of agricultural produce has been strengthened. An important conclusion of the authors from their discussion of the evidence is that “Cuba remains on the path of food sovereignty, ...” (p.74)

Achievements in the agricultural sector in Cuba that the authors list include:

- increasing domestic food output through low external-input agriculture;
- diversifying species and crops, and thus also the diets of Cubans;
- fuller land utilisation through agrarian reforms;
- increased state support to agricultural production and producers;
- strengthening of cooperatives;
- improved local food security; and
- promotion of organic agriculture and awareness about organic agriculture.

The authors also draw attention to the many challenges that remain. On balance, they view the Cuban experiment as highly successful, and as containing a number of lessons for other countries with respect to food security and sovereignty, sustainable agriculture, agro-ecology, and focus on people as innovators and on local development.

On the whole, the book is an important and useful contribution to understanding the complex agricultural challenges facing a courageous people who are battling a superpower that is yet to reconcile itself to Cuba’s existence as a sovereign socialist country. It is clear from the narrative, though this is not always highlighted, that agricultural policies in any country cannot be determined in isolation, but must necessarily depend on political and socio-economic factors, and power relations.

Agrarian policy is deeply political. However, this is not at all to argue that agrarian policies can be solely politically determined without reference to the material conditions of agricultural production. Equally, the role of science and scientific advances is critical. In this context, it is unfortunate that this otherwise very useful book tends to be very sceptical about the potential of agricultural biotechnology and its applications in the Cuban context. It advances no arguments for its scepticism, but seems to share a prejudice common in certain NGO circles in this regard. Of course, it is nobody’s case that genetic engineering harnessed to the logic of private profitability will solve problems such as food security. Far from it. But Cuba is a case where the state can take abundant measures to promote agricultural biotechnology, while ensuring that possible harmful consequences are greatly minimised. That, in any case, seems to be the understanding of Cuban policy makers. To this reviewer, that understanding seems eminently valid.