

# The Evolution of Cuban Agrarian Relations

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## Abstract

Cuba has been seeking a new agricultural development path since the 1990s, after the collapse of the Soviet Union and the socialist international division of labour. This article outlines some of the main historical traits of Cuban agriculture and the major innovations that have occurred more recently in its efforts to reconstruct its agrarian relations. The key aspects of the recent evolution of Cuban agrarian relations are the initiatives in biodiversification and reorganization of production in Basic Units of Cooperative Production.

## Keywords

Cuba, agriculture, food security, biodiversification, UBPCs

## Introduction

The majority of the world's poor, as much as 70 per cent, lives in rural areas and depends on agriculture directly or indirectly. The recent fluctuations in food prices have amplified the already pernicious effects of neoliberal policies on the world economy and the world's poor. Structural adjustment programmes, promoted by the International Monetary Fund (IMF) in recent decades, have reduced state intervention in agriculture by lowering tariffs, protective quotas, and price supports, in accordance with the theory of comparative advantage. As a result, the agrarian

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structure has been disarticulated, eliminating small- and medium-scale properties, depriving the peasantry of its traditional role in food production, and pushing millions of peasants to unemployment. This trend has been compounded, especially in developing countries, by the privatization of millions of hectares of agricultural land by transnational agribusiness.

Hunger thus presents today a global question of unprecedented magnitude and complexity. The Food and Agriculture Organization (FAO) of the United Nations estimates that in 2010–12 nearly 870 million of the world's 7.1 billion people were suffering from chronic undernourishment, that is, one in eight. Nearly all of them (852 million) live in developing countries, representing 15 per cent of the population of developing countries. There are 16 million people undernourished in developed countries (FAO 2012).

This is the global context in which Cuba has also sought a new path, especially in 1990s, after the collapse of the socialist international division of labour in which Cuba had participated since 1972. This article outlines some of the main historical traits of Cuban agriculture and the major innovations that have occurred more recently in its efforts to reconstruct its agrarian relations. The key aspects of the recent evolution of Cuban agriculture are the initiatives in biodiversification and reorganization of production via the decentralized Basic Units of Cooperative Production (UBPCs, acronym in Spanish).

## Cuban Agriculture in Historical Perspective

Agriculture in Cuba has a complex history. From the 1750s to the 1800s, the plantation system prevailed in Cuba, thus developing an economic model based on the export of primary products. Its imprint is still felt in our days, not only on the island, but in other Caribbean countries. For more than 150 years, tobacco, sugar, coffee and slaves were the main commodities exchanged in the world market. The new model of accumulation that took shape at that stage of the colonial era was both agrarian and semi-industrial.

The plantation economy's basic trait was the shortage of rural labour. Due to its high cost, free labour was absent, and there was no mass of small owners that could be expropriated. The solution was the massive

introduction of slaves. Another of the model's main traits was an increasing need to import food and durable goods. This brought about an historic deficit in foodstuffs. Cuba would be an agrarian economy but not a peasant one.

Cuba found no economic alternative to these enormous agrarian estates during its republican period, a situation worsened by the installation of the US monopolies and injection of capital. When the revolutionary government came to power in 1959, 75 per cent of Cuba's agricultural land was owned by foreign companies and individuals. The most important agricultural product was sugar, which was sold to the United States and Great Britain. The US government had given Cuba a large quota for sugar imports, paying above world prices in order to support the US industry. This was the legacy that was transferred in January 1959 to the victorious Revolution: the land question combined with a labour force which was made redundant after the sugar harvest, and dependence on imported foodstuffs and durable goods.

The agrarian reforms of 1959 and 1963 consolidated state predominance over the use of land and introduced large-scale production patterns, which in order to take advantage of the existing infrastructure retained the emphasis on sugar production and cattle raising. After 1963, and under the axiom 'more state property means more socialism', over 70 per cent of the agricultural sector was turned over to the state, and the vast majority of this sector's workforce became salaried (Aranda 1968).

The agrarian reforms of the Revolution turned tenant farmers, sharecroppers and squatters into owners (Pino 1999). Vast colonial and 'neo-colonial' estates were quickly replaced by vast state-owned farms, which of course differed from their predecessors in their social nature (Valdés Paz 1997). At the time, rural settlements only represented 20 per cent of the population. This is one of the most important factors that, historically, have influenced agricultural development in the country. The situation was exacerbated by the availability of educational and employment opportunities in large cities, opportunities which had, until then, been beyond the reach of the children of small farmers.

Production was organized on a Fordist model and '[i]ts immediate consequence was to expand and strengthen a high-consumption agricultural model in increasingly bigger productive units devoted to mass production under a vertical management regime' (Nova 1997: 36). As of 1990, before the new period of reforms, the average size of state farms

devoted to sugar and citrus was about 10,000 hectares, while farms devoted to animal production and rice were, on average, over 20,000 and 30,000 hectares, respectively.

These state-owned farms were characterized by massive mechanization, introduction of science and technology, use of chemicals, and specialized production, as well as by their excessive size. Production increases under these conditions were achieved by concentrating machinery, equipment and supplies. Labour shortages were supplemented by mass mobilizations of urban workers.

From 1975, the productivity of agriculture, in terms of both land and labour, declined (Nova 1997: 40). The inability of state-owned enterprises to generate profits became a heavy burden on the state budget, which subsidized losses. Agriculture made no leaps towards creating the basis for relative independence in staple foods. Furthermore, when Cuba joined the socialist international division of labour in 1972, it specialized in the production of sugar and citrus fruit, in exchange for cereals and other foodstuffs. By the end of the 1980s, around 60 per cent of arable land was devoted to export crops, with just over 40 per cent allocated to food production (Figueras 1994).

In the 1990s, after the collapse of the socialist countries, Cuba suffered a huge import crisis: the agricultural sector was deprived of fertilizers, animal feed, tools, seed, wire, animal vaccines, fuel for farm machinery or irrigation systems, tyres, batteries and spare parts. At that time Cuba also experienced two blockades (*bloqueos*), one from the United States, the other from the ex-socialist countries that hitherto had been its trading and financial partners. What is undeniable is that the US blockade has made it far more expensive, sometimes prohibitively so, for Cuba to achieve high production in food and agricultural exports.

A study published by the American Association for World Health in 1997, entitled *Denial of Food and Medicine: the Impact of the US Embargo on Health and Nutrition in Cuba*, found that the US embargo 'has dramatically harmed the health and nutrition of large numbers of ordinary Cuban citizens' (AAWH 1997: ii). Furthermore, a British study found the US embargo guilty of causing 7,500 excess deaths per year during the hardest years of the 'Special Period' which followed the collapse of the Soviet Bloc (Garfield 1999: 13).

With the collapse of East European socialism in 1989, the so-called *programa alimentario* (food programme was developed to replace food

imports with domestic production. The main objectives were to reduce dependence on food imports, increase self-sufficiency, and guarantee an adequate supply of calories and proteins. In the early 1990s, the food programme did not essentially modify the basis, structures, or functioning of the agrarian economy's performance and management. Vertical subordination and centralization of plans and programmes were not only kept but expanded, so that the state sector encompassed 83 per cent of the arable land (Figueroa 1996). However, the ambitious goals of the food programme did not materialize.

Cuba avoided economic and political meltdown, using the most important resource the country has, its human potential. A rapid and innovative espousal of new programmes in biodiversification and organization of agricultural production allowed the sector partially to recover by the end of the 1990s.

## **Biodiversification**

Cuban agriculture has been forced to abandon standard power farming practices and is applying sustainable soil and crop practices. During the 1990s, Russia stopped delivering crude oil to Cuban refineries in exchange for Cuban sugar. At the same time, Cuba found itself unable to import chemical fertilizers, pesticides and herbicides. Such imports dropped by 80 per cent. This panorama allowed Cuba to begin an agricultural conversion process affecting the nation's entire crop.

When gasoline for farm tractors became scarce, Cuban agriculture turned to 100,000 oxen. Since then, by means of a nationwide breeding campaign, the number of oxen working the land has risen to 400,000. This also implied the production of a whole line of cultivators, seeders, and harvesters suitable for ox power. No-one expects that oxen will remain the permanent source of Cuba's farm energy, but as a temporary measure for survival it has created the possibility of re-establishing part of the lost agricultural production.

Additionally, Cuban scientists developed a very important pest reduction programme, such that today the country has more than 230 locally controlled and operated Centers for the Reproduction of Entomophages and Entomopathogens (CREE) that create nontoxic pest controls. One such CREE is located at an Agricultural High School, where students

scout the fields to determine infestations, raise the bugs, do the releases, and monitor the results. Another centre known as Pasture and Fodder Research Institute (PFRI), is guided by the principle that diversity leads to stability. Instead of trying to concentrate the maximum number of cows in a factory type of operation, they study the best ratio of livestock to horticulture per hectare.

The arguments against such programmes in progress is that the country is retreating to more primitive agriculture. Yet, the many years of mechanized cultivation damaged the soil's microorganisms. Microorganisms that live in the shade die in the sun and *vice versa*; excess stirring of the soil raises havoc with soil life. Today, while making a good seed bed, the soil also promotes weed growth.

There is also the technique of Participatory Plant Breeding (PPB), in which researchers work directly with farmers, steering Cuban national agricultural practices away from high dependency upon unsustainable elements, such as expensive technology and imported chemicals, to develop a pioneering model of agricultural policy which is likely to play an important part in the success of other developing countries.

Biodiversity is important. If agricultural production rests on too narrow a base—the high-yielding crop varieties upon which much of the world has come to rely—and those varieties are threatened, crisis occurs. In the past, farmers have automatically maintained crop diversity, but the homogeneity of modern agriculture threatens genetic diversity, and thus local and global food supplies. The high-yielding varieties developed by scientists also require considerable maintenance and expensive chemicals, and many small farmers can afford neither these nor the expensively-developed seed necessary for their cultivation.

The aim of the Cuban project has been to strengthen the base of agricultural biodiversity by making a greater range of varieties of seed available to farmers, using the latter's knowledge in a virtuous circle of research and response. This became an urgent priority after the collapse of the Soviet Bloc, for food production in Cuba had to be doubled whilst input was halved, and food exports had also to be kept up in order to earn vital foreign exchange.

Cuba is now one of the world leaders in biofertilizers, with a highly impressive production of organic food. This agricultural approach has breathed new life into rural communities and done a great deal to stem rural migration to urban areas. It is the envy of international

organizations promoting organic farming and sustainable development. Cuban farmers and researchers are applying traditional and alternative technologies to food production and forging ahead towards their ultimate goal of total sustainability. The ongoing National Programme for Soil Improvement and Preservation has benefited 475,000 hectares of land in 2004. The annual production of five million tons of composted soil by a network of worm farms is part of this process.

Another area in which an innovative approach has been applied is that of urban agriculture. Havana is the largest city in the Caribbean, housing 20 per cent of Cuba's population. Food shortages and the lack of fuel for distribution had a catastrophic effect on the city in the early 1990s, so the establishment of private gardens, state-owned research gardens, and popular gardens employing around 25,000 urban farmers has been of inestimable value in maintaining the capital's food supplies. The popular gardens range in size from a few square metres to large plots of land which are cultivated by individuals or community groups. They yield important food supplies to local communities, in addition to the medicinal plants.

By 1999, there were gains in yields for 16 of 18 major crops, with potato, cabbage, malanga, bean, and pepper production recording higher yields than in Central America and above average yields in the world. By the end of 2000, food availability in Cuba reached daily levels of 2,600 calories and more than 68 grams of protein (the FAO considers 2,400 calories and 72 grams of protein per day to be sufficient). By 2002, 35,000 acres of urban gardens produced 3.4 million tons of food. In Havana, 90 per cent of the city's fresh produce came from local urban farms and gardens, all organic. In 2003, more than 200,000 Cubans worked in the expanding urban agriculture sector. In the same year, the Cuban Ministry of Agriculture was using less than 50 per cent of the diesel fuel it used in 1989, less than 10 per cent of the chemical fertilisers, and less than seven per cent of the synthetic insecticides.

## **New Reforms in the Agricultural Sector**

On 15 September 1993, a new chapter in the island's agrarian history began. A proposal made by the Political Bureau of the Communist

Party became law, thus initiating the restructuring of Cuba's agriculture. UBPCs were created within the 735 state-owned sugar cane farms and the 835 other agricultural enterprises. The decree-law No. 142 of September 1993 turned a fundamental portion of state farmland over to free usufruct on long-term leases to workers' collectives, which were also granted the basic means of production required for them to take on their responsibilities.

Members could autonomously share gains and choose their leaders, but also had to negotiate production plans with the state farm enterprise. The basic aims of the UBPCs were to attain substantial increases in agricultural production; to lower costs and attract workers to the agricultural sector; help stabilize the labour force, improve rural living standards, facilitate solutions to problems like housing and access to social services, and move towards eliminating agricultural subsidies. UBPCs have rendered possible a meaningful reduction in size of state-owned farms devoted to agriculture. Their average size varies from 800 to 1,000 hectares. This, together with other forms of land tenure, allowed a mixed economy to emerge in the island's rural sector. The state sector has kept only 33 per cent of the cultivated land, whereas 42 per cent of the land, 90 per cent of the sugar-cane production, and 60 per cent of production other than sugar cane are concentrated in the UBPCs (Valdés Paz 1997: 185).

UBPC members organize their work, decide how the available equipment will be used, make use of subsistence areas, and sell surplus production once contracts with the state have been fulfilled. Production plans are negotiated with the state-owned enterprises within which the UBPCs operate, and they buy and sell their contracted products at prices set by the state. Nonetheless, the UBPCs have contributed to democratizing the organizational structures of agricultural production. Each UBPC administrative board has to be periodically ratified by elections, in which 75 per cent of members participate. Many analysts think these elections may make it possible to overcome the inefficiencies that have burdened Cuban agriculture. They are certainly a response to the limited resources currently available to agriculture, and they contribute to cutting losses in that sector.

Agricultural markets were set up throughout the country late in 1994 as a logical follow-up to this decentralization (Carriazo 1994). These markets opened new opportunities for UBPCs, which could use them to

sell surpluses not included in agreements with state-owned enterprises. More recently, they were authorized to sell an important portion of their main crops in this way, thereby increasing their earnings.

These transformations led to the important policies adopted since 2007. In relation to the agricultural sector they include:

- a national strategy to reorganize the agricultural sector, concentrating on the development of cooperatives;
- a strategy known as the Municipality Initiative, adopted by the Ministry of Economy and Planning, which proposes a pioneering national approach towards capacity development in local self-financing; and
- the strategy of University Municipalization, adopted by the Ministry of Higher Education, which consists in the creation of university headquarters in local municipality and their linking to local development planning.

The new policies aim to increase progressively the agriculture contributions to the national balance of payments, so that Cuba could stop being a net food importer and diminish its high financial dependence, covered today by the revenues of other sectors. The adoption of a new management model, with a larger presence of new productive enterprises, promotes higher producer autonomy in the increase of efficiency, as well a gradual decentralization towards local governments. The authorities are working towards effective legislation, corresponding to the transformations in the productive base, in order to facilitate efficient and competitive operation and decentralize the system of economic and financial administration, as well as establish the control instruments and reliable information systems that will be applied.

The transformations intend to transfer more responsibilities to the different forms of cooperatives, diminish state intervention, and introduce in a gradual way other forms of cooperatives in services which would be integral to agro-industrial activities at the local level. Additionally, the authorities are restructuring the current system of commercialization of inputs and equipment, as well as the financial mechanisms, offering to the enterprises direct access to these resources through a network of establishments that are being created in the country.

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