

AGRICULTURE: POLICY AND PERFORMANCE

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Despite the acceptable results obtained so far in handing over idle lands in usufruct under Decree-Law No. 259 of 2008, thousands and thousands of hectares of arable land still await hands ready to produce what the population and the national economy so much need and what can be harvested from our fields to replace ever more expensive imports of many products that today benefit foreign suppliers instead of our farmers.

—Raúl Castro, 19 April 2011

On 10 July 2008, three weeks short of two years after taking over the government from his incapacitated elder brother and almost a year after saying that “structural and conceptual changes” were needed in agriculture, Raúl Castro signed Decree-Law No. 259, authorizing the mass transfer of idle state lands in usufruct to individuals and corporate bodies “in order to increase the production of food and reduce its importation.” Implementing regulations (Decree No. 282) were issued on 27 August 2008 and local offices to receive requests for land opened three weeks later. By 3 July 2009, 690,000 hectares—41% of an idle area then put at 1.7 million hectares—had been transferred. Two-thirds of that was infested with *marabú* (*Dichrostachys cinerea*), a thorny, fast-growing shrub that forms dense thickets difficult to

eradicate. Nevertheless, a quarter of the land under new management was reported to be in production (González, 2009). Two years into the life of Decree-Law No. 259, slightly more than 1 million hectares had been transferred, of which 46% was producing, according to official figures (Lescaille Durand, 2010).

The more accessible locations having been spoken for, the pace has slackened (Varela Pérez, 2011g). In mid-2011, the Cuban news agency Prensa Latina, citing a leading official of the National Center of Land Control, reported that 67.7% of an idle land inventory, now put at some 1,868,000 hectares, had been transferred. Of the land that had changed hands, 77.1% was being utilized, more than half for cattle farming. Some 173,000 requests for land had been received—overwhelmingly from individuals, of which 145,684 had been approved, 9,511 denied, and 18,289 were in process (Prensa Latina, 2011).²

Strangely, no reflection of the 71,000 (Pérez Sáez, 2011), or more, new landholders created under Decree-Law No. 259 is discernible in the official employment statistics. Total employment in agriculture, hunting, forestry and fishing, not broken down, fell

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2. The figures on land distribution and use by form of tenancy and type of enterprise or entity in the official statistical yearbook for 2010, published in 2011 (ONE, 2011b, Table 9.1), are still those as of 31 December 2007, although the figure of 1,232,800 hectares given for the total area of idle agricultural land was subsequently replaced in official discourse by estimates of 1.7 million hectares or more. The reason why more up-to-date information is not published is not known. According to Varela Pérez (2011e), officials of the National Center of Land Control traversed the country every six months in order to observe the situation on the ground and not rely solely on second-hand reports occasionally based on inaccurate information. Periodic updating of the stock of idle land was required owing to the changes that had taken place since Decree-Law No. 259 went into operation.

from 945,600 in 2009 to 921,500 in 2010, now only marginally up from 2007–08 levels, but below those in 2005–06 (ONE, 2011b, Table 7.3). Membership in agricultural production cooperatives and basic units of cooperative production has successively declined from 242,100 in 2007 to 217,000 in 2010. Deducting self-employed workers, presumably overwhelmingly urban, from the total number of persons in the private sector leaves 451,100 in 2007, 460,500 in 2008, 447,500 in 2009, and 442,000 in 2010 as the number that must represent private farmers (ONE, 2011b, Table 7.2). A change in reporting practice can perhaps explain this oddity.

Discrepancies in the statistics are a warning not to read agricultural data too closely. In the first place, implementation of Decree-Law No. 259 is a work in progress, on which higher-echelon officials are liable to be less well-informed the farther they are from the field. Aside from applications for land still awaiting local approval, there are cancellations. In one province, for instance, 361 grants had been annulled and the land involved ceded to 118 newcomers (Martínez Molina, 2011). Even without that commotion, statistics of the amount of food produced in a country present recording problems and to a degree are based on guesswork. But in the case of Cuba, analysts are additionally faced with differences between the farm output data in the yearbook of the National Office of Statistics (ONE, 2011b) and in the January-December 2010 issue of its quarterly selected indicators (ONE, 2011d). As expected, the figures in the former, which includes the production of patios and plots, tend to be higher than those in the latter, which does not. But not throughout. For potatoes, a focal point of government food production campaigns, ONE, 2011b, Table 9.9, reports 191,500 metric tons, against 195,200 tons in ONE, 2011d, Tables 1.1, 2.4.³ The latter publication also has higher 2010 figures for the state sector production of poultry meat and eggs (cf. ONE, 2011b, Tables 9.22 and 9.23, and ONE, 2011d, Table 2.31).

All that notwithstanding, there can be no doubt that Decree-Law No. 259 has brought a big structural change in land tenancy. What is still wholly uncertain is whether the government's objective of sustainably raising domestic food production is being achieved.

UNSATISFACTORY PERFORMANCE

The results for 2010 disappointed. According to a preliminary estimate, the contribution of agriculture, livestock farming and forestry to GDP at constant 1997 prices fell by 2.8% from the year before (ONE, 2011c). In volume, excluding sugarcane as well as patios and plots, crop production declined by 8.5%, while livestock output rose by 0.6%, for an overall drop of 4.2% (ONE, 2011d). Since it offers a fuller picture of agricultural performance, Cuba's statistical yearbook is the source from which the following percentage changes in production, for sugarcane from harvest year 2008/09 to 2009/10 and for other crops from calendar 2009 to 2010, have been calculated (ONE, 2011b, Tables 9.4, 9.9):

- Sugarcane, down 22.8%.
- Tubers and roots, down 3.2%.
- Bananas and plantains, up 9.6%.
- Horticultural crops, down 16.0%.
- Paddy rice, down 19.4%.
- Corn, up 6.5%.
- Beans, down 27.4%.
- Citrus fruits, down 17.5%.
- Other fruits, up 1.9%.
- Cacao, up 23.2%.
- Tobacco, down 18.7%.

While some production surely went unrecorded, the omissions would have to have been markedly greater in 2010 in order to affect the year-to-year trends. The direction of the output figures is consistent with the movement in total areas harvested and in production (ONE, 2011b, Tables 9.4, 9.6): Sugarcane, tubers and roots, horticultural crops, rice, beans, citrus

3. Confidence in the reliability of ONE statistics is not enhanced by the repeated solecism of reporting a higher tonnage of sugarcane processed than harvested, as well as other incongruities in the mill performance data (cf. ONE, 2011b, Tables 9.4, 11.3). No figures are given for the 2009/10 grind, a year after its end.

fruits, and tobacco down; bananas and plantains, corn, other fruits, and cacao, up.

The structural change in land tenancy effected by Decree-Law No. 259 can be observed to some extent in the sectoral breakdown of the areas harvested and in production (ONE, 2011b, Tables 9.7, 9.8): With the minor exception of beans, non-citrus fruits and cocoa, which together expanded by a mere 1,309 hectares, the crop areas in the state sector shrank in 2010, compared with the year before. Contrary to what might have been expected, the 2010 non-state areas of horticultural crops, rice, beans, citrus fruits, and tobacco were also smaller than in 2009. Moreover, the horticultural crop area was also down from 2008, the year Decree-Law No. 259 was promulgated, and nearly a quarter below 2005, the first year shown in the table. On the other hand, the 2010 tubers and roots area, while only negligibly larger than in 2009, was by more than 50,000 hectares greater than in 2008, and also slightly superior to 2005, owing to a shift to the cultivation of sweet potatoes. Similarly, albeit with wide fluctuations, the banana and plantain, rice, corn, bean, and non-citrus fruit areas in the non-state sector have grown considerably over the last six years. The evolution of the total area of the major food crops and fruits harvested and in production comprehended in ONE, 2011b, Tables 9.7 and 9.8, is summarized in Table 1. Overall, the non-state area has grown considerably more than the state area has shrunk, evidence that Decree-Law No. 259 has had some positive effect in bringing idle land back into production. However, after a fall of some 87,000 hectares from 2009, the 2010 area of both sectors was only about 80,000 hectares, or 6.8%, bigger than in 2005.

Livestock farming, on the whole, appears to have performed somewhat better than crop production in 2010 (ONE, 2011b, Tables 9.17, 9.18, 9.20, 9.22, 9.23):

- Beef cattle and pigs, deliveries for slaughter, live weight, down 2.3% and 3.7%, respectively.
- Poultry meat, up 1.2%.
- Cow milk, up 4.9%.
- Eggs, up 0.1%.

Table 1. Major Food Crops and Fruits—Total Areas Harvested and in Production, 2005–2010 (1000 hectares)

	State	Non-State	Both Sectors
2005	152.7	1020.9	1173.6
2006	131.5	857.4	988.8
2007	129.0	918.2	1047.2
2008	140.6	907.0	1047.6
2009	137.4 ^a	1203.6	1340.9
2010	119.4	1134.3	1253.8

Source: Calculated from ONE, 2011b, Tables 9.7 and 9.8. The categories comprehended in the above figures are those shown in the source for tubers and roots, bananas and plantains, horticultural crops, paddy rice, corn, beans, citrus fruits, and other fruits. Totals may not add up due to rounding.

The national herd of beef cattle increased by almost 300,000 between 2005 and 2010 to roughly 4 million, the growth rate accelerating notably since 2008 (ONE, 2011b, Table 9.15). Behind the fall in the slaughter tonnage in 2010 lies a decrease in the number of animals delivered, but there is a positive trend towards fattening the animals and raising their average weight (ONE, 2011b, Table 9.18). Milk output has also gone up steadily over the last six years, with the share of the non-state sector growing from 80.4% to 88.3%, as a result both of increases in the number of cows in production and of milk yield per head (ONE, 2011b, Table 9.17).

On the other hand, the total 2010 pig count of 1.6 million is down 10.0% from 2009 and 15.3% from 2008, the peak in the last six years, as well as below the number in 2005. The herd was better managed, however, and the number of live births in 2010, while 5.6% fewer than in 2008, was 42.6% greater than in 2005, with the death rate also tending to improve. The non-state sector's share of the national pig herd hovered slightly below 70% in the most recent three years (ONE, 2011b, Table 9.19). Much of the finishing takes place in state entities, which still accounted for 54.6% of the total tonnage delivered for slaughter in 2010 (ONE, 2011b, Table 9.20).

State entities also remain heavily involved in the production of poultry meat and eggs, holding 43.2% of the reported national flock and producing 22.0% of the chicken meat and 77.8% of the eggs in 2010. In-

indicator of poor and deteriorating bird welfare, the mortality rate among laying hens ranged from 23.0% to 23.9% in 2008 to 2010, against 17.7% to 20.4% in 2005 to 2007 (ONE, 2011b, Tables 9.21, 9.22, 9.23).

Can the broadly unsatisfactory 2010 performance be put down simply to a lagged production response to the measures taken? Possibly. The information so far available for 2011 paints a patchy picture. Without giving a figure of the actual outturn, *Granma*, the official organ, reported that the target for the 2010/11 sugar campaign was overfulfilled by 6%, with an average national cane yield of 32.5 metric tons per hectare harvested (Varela Pérez, 2011b). While an improvement on the 2009/10 yield of 26.7 tons, this was still the second lowest over the last five seasons (ONE, 2011b, Table 9.4). Reuters estimated that around 1.15 million tons of raw sugar were produced (Reuters, 2011b). Non-sugar crops, excluding the produce from patios and plots, increased by 7.0% and livestock products by 4.0% in volume in the first half of 2011 over the corresponding period of the year before, for an overall rise of 6.1%, according to ONE, 2011e. Could this mark a turning point? Before that can be confirmed as a definite trend, Cuba's agriculture still has a mountain to climb.

Sustained progress is contingent on raising factor productivity on the island's farms. The, by and large, very low return from the resources employed is their Achilles' heel. In sugarcane, the average 1950s yield of 40 metric tons per hectare harvested has been matched only once since 1991/92 (ONE, 2011b, Table 9.4), let alone the 1980s average of 54 tons and any current world benchmark. In all the main non-sugarcane categories listed in ONE, 2011b, Table 9.12—tubers and roots, bananas and plantains, horticultural crops, rice, corn, beans, citrus fruits, other fruits, cacao and tobacco—the average yields per hectare in 2008–2010 stand below those in 2005–2007. Except for the poultry industry, livestock products present a somewhat better picture, with the average per capita weight of beef cattle and pigs sent to the abattoir slightly higher in 2008–2010

than in 2005–2007, and an improved milk yield (ONE, 2011b, Tables 9.17, 9.18, 9.20, 9.22).

ONE, 2011b, only breaks down performance between state and non-state and does not itemize the non-state sector components—basic units of cooperative production (UBPCs), agricultural production cooperatives (CPAs), credits and services cooperatives (CCSs), scattered private producers, and house patios and plots (ONE, 2011b, Chapter 9, Introduction). Worryingly, a comparison of the yields reported in Tables 9.13 and 9.14 suggests that the land transfers in the wake of Decree-Law No. 259 may have been accompanied by a falling-off of yields in the non-state sector greater than in the state sector.

As can be seen in Table 2, while there were two exceptions to the general decline in 2008–10 yields, compared with 2005–07, in the state sector, all categories fell in the non-state sector. However, in beans and other fruits non-state farmers registered a smaller drop than state entities. Also to be noted from the underlying data is that the non-state sector averaged higher yields of corn, beans and other fruits than the state sector in 2005–07 and that this superiority was maintained in beans and other fruits in 2008–10 (ONE, 2011b, Tables 9.13, 9.14).

Table 2. Index Numbers of Average 2008–10 Crop Yields, State and Non-State (2005–07 averages = 100)

	State	Non-State
Tubers and roots	105.5	91.8
Bananas and plantains	82.5	82.5
Horticultural crops	87.8	83.4
Paddy rice	87.9	87.0
Corn	95.0	72.5
Beans	72.4	77.7
Citrus fruits	110.8	82.3
Other fruits	71.1	92.3

Source: Unweighted average yields and index numbers calculated from ONE, 2011b, Tables 9.13, 9.14.

Further light is shed by ONE, 2011d, which contains separate figures for the state sector, UBPCs, CPAs and private farmers,⁴ albeit without patios and plots, and only for the most recent year. Another, po-

4. The private sector is here defined as credits and services cooperatives and scattered farmers who do not belong to any type of cooperative (ONE, 2011d, p. 50).

Table 3A. Private Farm Performance, 2010—Crops

	%	%	2010/2009	
	Total Area ^a	Total Output ^a	Area	Output
Tubers and roots	63.8	60.8	122.1	112.0
Bananas & plantains	58.6	60.2	122.6	121.4
Horticultural crops	67.1	62.0	105.6	88.3
Paddy rice	65.2	65.3	149.3	124.0
Corn	72.6	81.4	119.0	116.0
Beans	65.9	76.3	116.6	77.2
Citrus fruits	23.5	17.4	157.9	112.0
Other fruits	55.1	76.1	144.8	112.1

Source: ONE, 2011d.

a. Calculated.

b. As in source, the ratios stated refer to the absolute figures for 2010 compared with 2009.

Table 3B. Private Farm Performance, 2010—Livestock

	% Total ^a	2010/2009
		Performance ^b
Cows in production, head	64.2	115.3
Milk	64.3	111.1
Beef sent to slaughter, head	2.5	568.2
Beef sent to slaughter, tons	2.9	534.4
Pigs sent to slaughter, head	15.2	129.8
Pigs sent to slaughter, tons	14.7	133.6
Poultry sent to slaughter, tons	4.7	100.6
Eggs	0.8	29.0
Beef herd	57.3	109.3
Pig herd	60.2	103.2

Source: ONE, 2011d.

a. Calculated.

b. As in source, the ratios stated refer to the absolute figures for 2010 compared with 2009.

tentially important, distinction is a difference in terminology—area *harvested and in production* in ONE, 2011b, area *planted* in ONE, 2011d. According to the latter source, the private sector's share of total output was greater than the corresponding figure of total area planted in the banana, rice, corn, beans, and other fruit categories, but smaller in tubers and roots, horticultural crops and citrus fruits (Table 3A). Without exception, the recorded year-to-year growth in the areas planted to these crops was

greater in the private than in the other sectors. However, the growth in area was not matched by the growth in output. The increases in the private sector's beef herd, cows in production and milk output are consistent with reports that livestock farming was the principal line for which land was requested and granted under Decree-Law No. 259 (Prensa Latina, 2011; Varela Pérez, 2011e). The enormous rise, from a tiny base, in the number and weight of beef cattle sent to slaughter reflects the obstacles to finishing the animals, in process of being removed, that have hampered private operators. The negligible contribution of the private sector to the national egg supply captured in these statistics suggests that surpluses to self-consumption from smallholder poultry-keeping are disposed of informally (Table 3B).

The numbers for crop areas and output point to some dilution of the overall efficiency of the private sector. This ought not to come as a surprise, given the conditions of Decree-Law No. 259 and the circumstances surrounding its implementation. While putting idle land and underemployed labor to work could be expected to increase the domestic food supply, it might—if only temporarily—depress input-output ratios. For one thing, the majority—more than 105,000 according to Varela Pérez (2011a), fewer according to other sources—of the applicants for land under Decree-Law No. 259 were previously landless and, though not necessarily without previous agricultural experience, presumably lacked farm management know-how.⁵ Still, keeping in mind the shortcomings of the statistics and the possibility of differences between sectors in the degree of output under-recording,⁶ an inference of decreased private sector farm efficiency must be treated with caution and, in any case, is probably a passing phenomenon.

GALLOPING CRISIS, LIMPING RESPONSE

Picking up the pieces from the agrarian mess left by his brother was never going to be easy for Raúl Castro. But no matter how difficult, he cannot have been in doubt about the urgency of tackling it. As early as

5. A concern over the productivity of the new farmers may be inferred from paragraph 189 of the policy guidelines adopted by the Communist Party Congress in April 2011 (VI Congreso, 2011c): "To procure that the grant of lands in usufruct be conducive to production results similar to those current in the cooperative and [private] farmer sector, so that the producer will not be a wage-earner but depend on his income."

December 2006, not long after he took charge, the Commission for Economic Affairs of the National Assembly outlined the dimensions of agriculture's underperformance against a background of high food import prices. In the following 26th of July commemoration of the assault on the Moncada army barracks in Santiago, he himself declared "We face the imperative of making our land produce more." This makes the slowness and so far limited nature of reform all the more puzzling. Speaking to the congress of the Communist Party's youth organization in April 2010 (*Granma*, 5 April), Raúl Castro acknowledged the existence of voices urging a faster pace of change. Whether the tempo is dictated by the magnitude and complexity of the problems facing Cuba, as he claimed, by divisions among the leadership, by resistance at lower levels of the state apparatus, by lack of the cash needed to jump-start major reforms, by incompetence, or by all these factors and what weight to attach to each, is an unknown—certainly to outsiders. While Raúl Castro may well have a sense of Cuba's agricultural crisis, he appears unable to overcome it.

Paradoxically, the apparent inability or disinclination to push through needed changes in a timely manner, often portrayed as deliberateness, coexists with short-termist and badly-written policy formulation. To be sure, Decree-Law No. 259 signified a radical break with the long-held doctrine of the superiority of large-scale state or parastatal farming, of which Fidel Castro had been the foremost exponent in Cuba. But the tenor of the law and of the implementing regulations still spoke of conflicting governmental interests between retaining administrative control and enabling farmers to bring idle land back into production and boost the food supply. Although the drafting of these instruments was said to have been informed by some 11,000 proposals—including more than 900 dealing directly with the transfer of idle land—received from the

population following Raúl Castro's speech on 26 July 2007 (Martín González, 2008), their inadequacy to make the land produce more in short order was plain to see within a few months—those who would have to do so being smothered by bureaucracy but not given the necessary equipment and financial support (Nova González, 2008; Pérez et al, 2009). Before they could plant up their newly acquired patches, farmers had to, in the picturesque words of the old saying, *hacer de tripas, corazón*—pluck up courage to root out the *marabú*, more often than not without the necessary tools and without a gram of herbicide, as the trade union organ, *Trabajadores*, described the situation later (Rey Veitia et al, 2010). Whether the policymakers knew it or not, this was capitalist recession economics with a vengeance: better low productivity than unemployment. But that is not a recipe for a sustainable agriculture in the longer run. The only effective response to a prospect of high global food prices is to become more productive.

Almost certainly, the reform will be reformed before it is much older.⁷ Asked by the Communist Youth organ, *Juventud Rebelde*, if the renewable ten-year lease of land transferred to individual operators under Decree-Law No. 259 constituted a brake on people staying on the land, Orlando Lugo Fonte, president of the national association of small farmers (ANAP) and member of the central committee of the Communist Party, replied that in his opinion it was (Pérez Sáez, 2011):

It is a limitation and a contradiction. Amendment of the decree-law is being looked at. If I were asked, I would say that the usufruct must be permanent, because, moreover, the same regulation establishes that the state, were it so to decide, has every right to rescind that contract. The land remains property of the state, not of the farmer.

Another thing that in my view must be amended is the impossibility of inheriting the usufruct. I think

6. Alvarez (2000) hypothesized a scale of preferences of non-state farmers in the disposal of produce, partially influenced by the perishability of the commodity involved: on-farm consumption ? barter ? free or black market sales, the state purchase quota not being included because it was not considered a "preference" but a way for farmers to gain limited access to inputs.

7. Paragraph 189 of the policy guidelines adopted by the Communist Party congress in April 2011 (VI Congreso, 2011c) promises: "To modify Decree-Law No. 259 as appropriate in order to ensure the continuity and sustainability of the utilization of the lands granted in usufruct."

that if a person is on the land with his family, makes his life and dies, his children must have the right to inherit that usufruct.

In a wide-ranging interview, Lugo Fonte also indicated that beneficiaries under Decree-Law No. 259 would be allowed to build their homes on the land, eliminating another sore point—the uncertainty over whether even a shelter was permitted. On the crucial issue of the marketing of farm products, he opined:

I think the marketing has to be broken up. If in Cuba there is private and diversified production, you cannot have monopolized marketing. We have to seek many forms of buying and selling.

If they asked me, I would say it has to be direct. If a cooperative wants to sell products and wants to have a sales point, it should have it. If a hotel wants to buy a product from a cooperative, why can't it do that? Why is it obligatory to do so through a [state] enterprise?

We have to continue insisting in the direct marketing by producers to the retail network. There are provinces that have some experience. I know it is being studied, but, certainly, it is a subject still undecided.

Hinted at here, as in Lugo Fonte's remarks on the quality and prices of the supplies sold to farmers in the shops run by the ministry of domestic commerce, is another case of conflicting governmental interests—this one between exacting revenue for state enterprises and the national budget, and incentivizing food production. Decree-Law No. 259 would need less amendment, and by now there might be more to show for it, if the latter consideration had carried greater weight.

According to the main report to the Communist Party Congress last April, a change in Decree-Law No. 259 to raise the ceilings on the amount of idle land that can be transferred to outstanding producers was at an advanced stage of preparation. That is the only mention of agriculture in this document of close to 10,000 words (VI Congreso, 2011b).

POLICIES À LA CARTE

A more exhaustive picture of how the Raúl Castro administration sees the development of agriculture and agroindustry is presented in the “guidelines of

the economic and social policy of the party and the revolution” that emerged from the congress—the nearest thing in Cuba to what in other countries is a party election manifesto (VI Congreso, 2011c). As is in the nature of such documents, it is a mixture of broad concepts and detailed commitments. Within a frame of common ownership of the basic means of production and the primacy of planning and not of the market, the key sectoral themes touched on are (bracketed numbers refer to the numbered paragraphs in the guidelines):

- Greater food self-sufficiency, both nationally (Preamble) and locally (37, 185, 205).
- Import substitution (*passim*), with the specific objective to cease being a net food importer (177), prioritizing those lines that can be efficiently produced in the country (184). Animal protein sources, rice, corn, beans and soybeans are singled out (192, 193).
- Export promotion. Aside from increasing sugar production—about which more later, coffee, beekeeping, cacao, tobacco, citrus and other fruits are specifically mentioned (194, 195).
- A new model of management, with more effective utilization of monetary-mercantile relations and demarcation of the functions of the state and its enterprises (178).
- Greater autonomy of producers and cooperatives, as well as decentralization. To reflect the changes that have taken place in the industry, the existing legislation and organizational structures have to be updated to furnish reliable means of control and information (178, 179, 180).
- Access to production inputs and equipment to be restructured, ensuring a match between quality and prices of the goods on offer in the network of outlets being established across the country (182).
- Marketing. Production to adjust to demand. Goods to change hands under more strictly enforced contracts. Centralized circulation will be limited to the lines linked to national balances and free-market mechanisms will play a greater role in respect of the rest (181). The state procurement system will be transformed to make it more agile and reduce losses (183). After their

commitments to the state are fulfilled, producers and cooperatives may be allowed to sell directly without middlemen and using their own transport (27, 183).

- Prices will continue to be set centrally for products that the state wishes to regulate for economic and social reasons, price determination for the rest being decentralized (68). The state will maintain its regulatory role in the price formation of farm products that replace imports or generate exports in order to stimulate production, taking into account world market price behavior (190).
- Special attention is to be paid to processing and other activities that add value to farm produce, improve its quality, save transport, handling and conservation costs, and integrate small, local food processors with large-scale manufacture (191).
- Taxes. A special, differentiated and flexible regime will apply to farmers in order to stimulate production (58).
- Financing. Twin objectives are to reduce the high dependence of the sector on financing from the income of other branches of the economy (177) and to guarantee the provision of specialized banking services (203).

With 38 clauses devoted alone to agroindustrial policy and 313, in all, covering the Cuban economy from soup to nuts, the guidelines rather resemble the menu of a restaurant that lists hundreds of dishes. In such eateries, however, there is usually a sheet headed “Today’s Specials” to steer the customer to the half dozen dishes ready to be brought to the table immediately. Here, there is no indication of the order of service. A philologist might also note that the word “reform”—noun or verb—does not appear. What is presented is the updating—*actualización*—of the Cuban economic model, although employment of this and other euphemisms does not extend to a ban

on the use of the words “transform” and “transformation.” Linguistic peculiarities aside, a glaring omission is any reference to bureaucracy, the subject of innumerable complaints from the population, not least in connection with the implementation of Decree-Law No. 259. Yet it is not at all self-evident that the proclaimed goal of devolving powers to the provincial and municipal level will reduce the mountain of red tape, unless its source in over-regulation is attacked root and branch. An indispensable condition of an efficient *actualización*, deregulation is not addressed.

The planks in the party platform on the sugar industry illustrate the difficulty of deciphering what, when and how programmatic points will be put into practice. Extensively rewritten from the pre-congress draft (VI Congreso, 2011a), they say (209):

The primary objective of the sugar industry will be to sustainably increase cane production, prioritizing the reordering of the areas to bring them nearer to the mill. In its development, it should perfect the relationship between mill and cane growers [and] make use of the sugar tradition and existing experience.

The need for close proximity of cane producer and processor is blindingly obvious, and the fact that it was felt necessary to spell it out in the final version indicates the disorder to which the industry has been driven. How the regime means to improve the mill-grower relationship, on the other hand, is left unclear. Does it imply the introduction of a modern equitable cane purchase system, negotiated between representatives of the field and factory sides of the industry, backed up, to the extent necessary, by legislation?⁸ While such a step would be in tune with guideline 178 on adoption of a new management model, it does not square with the maintenance of centralized price setting for products considered of economic or social interest to the state (guideline 68) and demands a flexible approach to import substitu-

8. In essence, such a system normally has two price formation components: (a) the division between mills and growers (by arbitrary percentages or some formula) of the industry’s revenues from sugar—with perhaps an allowance for the proceeds from by-products such as molasses, net of certain agreed overheads, such as Research and Development, and charges, such as transport from mill to port, and (b) a method of payment to the individual grower that in one way or another takes into account the quality (recoverable sugar) of that grower’s cane deliveries.

tion and local as well as national food self-sufficiency. The reference to Cuba's sugar tradition is a nice sentiment, repudiating Fidel Castro's dismissal in 2005 of sugar as the "ruin" of Cuba's economy and belonging to "the era of slavery," but does not resolve the uncertainty about the government's intentions, since Cuba has never had a proper cane quality payment system.

The next two guidelines pose additional puzzles. Stripped to the bone, they read:

(210) In the formation of the price at which the cane is bought from the producers, the international market sugar price should be taken into account and also that it be stimulating in relation to the other crops

(211) Gradually to increase the production of sugar and cane-based products . . . to obtain foreign currency revenues that permit financing the total operating costs, plus the value of the investments and repairs made, and make a net contribution to the country.

Guideline 210 appears to be a coded admission of the government's long-standing practice of setting the cane price at an unremunerative level, without regard to the world market sugar price, and of appropriating the industry's foreign exchange earnings by forcing it to sell its sugar to the state for a far smaller sum than it would obtain if allowed to retain and change them at a realistic rate. To keep the business going, this procedure entails that growers and processors be subsidized out of the state budget (Comisión Económica para América Latina y el Caribe, 1997, pp. 82–83). But read together, guidelines 210 and 211 are an incongruous statement of policy goals. Besides begging the question how the volatility of the world market sugar price will be accommodated, it skates around the present ratio of exports to domestic disappearance, utterly distinct from that during the years between the end of Soviet bloc supports and the restructuring of the industry, much less earlier times. Since 2005, the ratio of net sugar exports to consumption has averaged roughly 1:1 (International

Sugar Organization, 2010, p. 69). By contrast, even the reduced output level of the 1990s, after the end of Soviet bloc supports, on average allowed an export/consumption ratio of 4:1. At best, if output expansion targets are met, it will be several years before a ratio of 3:1 can be reached. Only Cuba's policy-makers know on what theory the domestic market can be ignored and export revenues expected to cover the industry's total operating costs, as well as capital investment—in effect, subsidizing internal consumption 100%.⁹ They can hardly count on the principal foreign buyers of Cuban sugar today—China, Russia and the European Union—to replicate the situation in the 1950s when it could be said that the United States usually subsidized sugar consumption abroad, in that the premium price it paid on Cuban sugar covered overhead costs of production and permitted Cuba to export to the world market at prices that covered variable costs alone (Timoshenko and Swerling, 1957, p. 342). In those days, the United States absorbed about half of Cuba's sugar production, and internal consumption was half of what it is now.

All in all, it is hard to infer from the guidelines a strong move to do away with dirigisme in the agricultural sphere, in spite of the growth of the private sector. Experience does not appear to have taught the authorities that their meddling—often post factum, trying to catch up with developments on the ground—is prone to increase, rather than lessen, instability. The effect of a doubling of the cane price to 104 pesos a metric ton in mid-2011, together with the cancellation or rescheduling of hundreds of millions of pesos in grower debts (Frank, 2011b; Reuters, 2011a), for example, remains to be seen; by all accounts, small private farmers have not ceased to grow cane, but feed it to their cattle, and the new price still bears no relation to the world market sugar price.

Unacknowledged in the guidelines is the tension that exists not only in respect of access to scarce inputs be-

9. In Spanish, guideline 211 reads: Aumentar de forma gradual la producción de azúcar y derivados de la caña . . . para lograr ingresos en divisas que permitan financiar los gastos totales de operación, más el valor de las inversiones y las reparaciones que se ejecuten, y realizar un aporte neto para el país.

tween the realization of the production targets for sugarcane and the other prioritized farm products, but also spatially between the objectives of cane area rationalization and municipal food self-supply, the so-called Suburban Agriculture program (guidelines 185, 205 and 206). Guideline 206 specifically demands:

To execute the suburban agriculture program, making efficient use of the lands around cities and towns, with the least possible expenditure of fuel and imported inputs, employing their own local resources and with full use of animal draught.

Raúl Castro himself launched this program at the summer 2009 meeting of the National Assembly, having been impressed by some garden-like intensive operations, with the statement (*Granma*, 3 August 2009): “Let us forget tractors and fuel in this program, even if we had them in sufficient quantities; the concept is to execute it basically with oxen, because it is about small farms . . .”¹⁰ The program, directed to small farms located in an eight-kilometer-deep ring between two and ten kilometers from urban centers, brings to mind the analytical model of agricultural production as a function of the cost of transport to the market created in 1826 by Johann Heinrich von Thünen (1783–1850), the North German estate owner and economist regarded as the father of location theory:

$$R = Y(p-c) - Yfm$$

Where:

R = Rent per unit of land.

Y = Yield per unit of land.

p = Market price per unit of yield.

c = Average production costs per unit of yield.

f = Freight rate per unit of yield and unit of distance.

m = Distance from market (in unit of distance).

This model generated four concentric rings of production around a city—perishable vegetables, fruits and dairy products closest to the city; timber and firewood, essential for building, heating and cooking, but heavy to transport, in the second ring; less per-

ishable and lighter field crops, such as grains, in the third ring; and animals that can walk to the city for sale and butchering in the most distant. Seen through the eyes of von Thünen, the concept of municipal food self-supply of the Suburban Agriculture program makes sense assuming isolated markets without trade between them, homogeneous soil quality, climate and topography, and no transport infrastructure. But are Cuban roads today as bad as German ones two centuries ago? To go beyond needed agricultural extension and financial services, the state would have to know better than the people on the spot to influence what is grown where. How well policymakers in Havana are prepared for a tutorial role is indicated by the fact that, if official statistics are to be believed, Cuba’s stock of draught oxen has shrunk, in the last six years alone, by nearly a quarter (ONE, 2011b, Table 9.15).

There is reason to question whether policies are sufficiently costed and tested before they are launched. A mention by Raúl Castro in his 26 July 2007 speech of an experiment with the delivery of 20,000 liters of raw milk directly from producers to shops and social institutions, with a view to saving the costs of transport to and from pasteurizer, was the signal to extend direct delivery rapidly across the country. It now appears that “the difference between what the state has been paying for milk and its actual quality on arriving at the industry or at the shops—far lower than that at which it was bought—has become a highly sensitive economic and social problem.” Nationally, the overpayment amounts to 1.55 peso per liter (Varela Pérez, 2011d). According to minister of the economy and planning Marino Murillo Jorge, more than 300 million pesos is paid for non-existent milk quality (Varela Pérez, 2011c). Whether what direct delivery saves in motor fuel has been compared with the energy spent in hundreds of thousands of households to boil the raw milk before consumption is not known. The problems range from the milk being watered to souring en route and to lack of refrigeration

10. For details of the scheme, see Hagelberg (2010). By January 2011, the program extended to 156 municipalities (Varela Pérez, 2011a).

facilities and other equipment (Borrego, 2011b). The population complains (Hernández Porto, 2011).

Priority status does not immunize a crop against equipment and input shortages. Pinar del Río's tobacco growers have to use fuel allocated for irrigation and transport to provide the population with household water, making a mockery of the premise of the Communist Party guidelines that "the centralized planning of the economy and systematic control that the state, the government and its institutions must exercise will guarantee the efficient functioning of the systems" (Suárez Rivas, 2011). Several reports testify to the losses suffered by rice growers owing to the inadequate availability of harvesters, fuel, sacks, and drying and milling facilities (Pérez Almarales, 2010; Borrego, 2011a; de Jesús, 2011). Nor does a sharp increase in producer prices quickly overcome decades of neglect and depopulation of the countryside, especially the more remote regions. Cuba's most recent coffee harvest showed the first signs of recovery from the record low of 2009; but it will take at least five years to reach a target that approximates 1970s production, not to mention earlier levels (Varela Pérez, 2010; Frank, 2011a). The wide range of factors that still impacted on production is demonstrated by the blame laid on "severe limitations"—above all of sugar, salt and rice—in the supply of food for the coffee pickers as one of the causes of the output shortfall in the province of Guantánamo (Merencio Cautín, 2011). And the continued extent of theft and illicit sale reported from Granma province is a warning to policymakers not to rely too much in their plans on a knee-jerk positive price response from farmers (Reyes Rodríguez, 2011).

Unsurprisingly, a government still harboring the illusion of being able to regulate the volume of agricultural production also still clings to the management of farm product marketing, a long history of failures notwithstanding. The current year began with the trumpeting of "innovations": the state guaranteed the resources for the 21 farm products of greatest importance and subject to contract—including such essentials as dried coconut; new nationwide prices decreed by the ministry of finances and prices; output in excess to the amounts contracted and unspecified

products allowed to be freely sold, albeit that the provincial administrations could still cap retail prices in the state agricultural markets; the people to run the system duly trained and empowered (González, 2011). Not yet six months later, however, the principal organ of the Communist Party opened a recital of shortcomings with this equivalent of an executive summary (Varela Pérez, 2011f):

The matter of agricultural marketing is one of the most complicated problems facing the country because, on not functioning adequately, it damages and irritates the population, decapitalizes farming and livestock enterprises with their debts, discourages the producer and is raw material for the unpunished activities of bandits because of the deficiencies of those responsible for control. In addition, it makes the state's efforts fall on deaf ears.

LITMUS TESTS OF REFORMS

Analysts can thank Raúl Castro for a semblance of glasnost. Ironically, it reveals the limits of his perestroika. That enterprise is running the danger of unraveling under the weight of its internal contradictions. If this is not to happen, the realization has to gain ground that "concentration of ownership" (guideline 3) is as undesirable in the public as in the private sector of the economy and that competition is the mother of efficiency. Non-functional state monopolies and monopsonies have to be dismantled. Also to be unpicked is the conflation of centralization and planning, a fantasy nowhere more counterproductive than in agriculture. To succeed, farm and agroindustrial policies must be informed by a thorough understanding of the conditions that make these sectors different from other economic activities. Regulation is obviously necessary in such areas as environmental protection, food safety and the prevention of market abuse. But to thrive, Cuba's agriculture and agroindustry require the government to shift decisively from a controlling to an enabling mode, attending to rural infrastructure investment, research and extension, the reduction of risk from natural causes, financing, and the provision of timely and reliable information.

In a speech to the National Assembly in July 2008, Raúl Castro returned to his oft-quoted 1994 statement that "beans are more important than cannons."

Over 2007–10, the four calendar years in which he has led the government, bean production averaged 96,400 metric tons annually, against an average of 109,175 tons in the previous four years (ONE, 2011a, Table 1.6). Men who have spent a lifetime running the armed forces may believe that making farm policy is not rocket science. It is surely at least

that. After all, a centrally managed economy was first to send a man into space; across the world, the track record of centrally managed economies in agriculture has been less glorious. The measures introduced to boost the home-grown food supply and reduce the need for imports have still to pass the beans test, and Cuba's agricultural malaise rumbles on.

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