

Exporting Cotton for the Benefit of the People

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Following the overthrow of the Somoza dictatorship in 1979, the new Sandinista government inherited an economic structure that was dependent on the export of four main agricultural products — coffee, cotton, sugar and beef. These had been developed mainly on capitalist farms employing low-paid workers. But despite pressure for a switch to the production of basic food, the Sandinista government stressed the importance of maintaining the output of these exports. In its programme, *Reactivating the Economy to Benefit the People*, published in 1980, it pointed to the need to maximise exports in order to obtain the foreign exchange required to import basic consumption goods and essential raw materials. The government therefore embarked on the tricky task of encouraging capitalist farmers to continue producing, while at the same time it nationalised the export trade. With this system, producers have been paid mainly in local currency, and foreign exchange has been allocated by the government according to its assessment of the country's priorities. In fact, because foreign exchange has been in increasingly acute shortage, its assignment has provided the government with a powerful lever for influencing most branches of the economy.

The most important of Nicaragua's exports in the 1960s and 1970s was cotton, although since 1979 this has fallen back into second place behind coffee. Cotton can be highly profitable, but it also involves a high degree of economic risk. The returns are very dependent on the yield, which fluctuates with the climate, and the price, which fluctuates in the world market. Because the plants must be grown from seed every year, producers have to decide at the beginning of each season whether to invest or not. This speculative element has attracted producers with a far more commercially aggressive outlook than, for instance, has coffee. As a result the cotton sector provides a sharp illustration of some of the problems encountered by the Sandinista policy to promote export production.

The cultivation of cotton in Nicaragua began in the early 1950s, and it expanded rapidly until the mid-1970s, displacing peasant producers of basic grains from the rich Pacific coastal plain. Production developed largely on medium (30-300 hectares) and large (over 300 hectares) capitalist farms which employed a body of semi-permanent waged workers supplemented at harvest time by a large number of

seasonal workers. The capitalist employers could draw on the support of the *Somocista* state which, through its repression of workers' attempts to organise, helped enforce a system of low wages and tight discipline.

In the late 1950s, climatic conditions and low world prices resulted in a period of low returns. This led to a decline in the area cultivated, and it also produced tensions between the producers and the large commercial companies who sold the cotton in the world market. The state therefore acted to alleviate these tensions by intervening through the Central Bank, to promote the adoption of more advanced production techniques and thereby raise yields.

As a result of the intensive use of fertilisers and insecticides, yields in the 1960s were on average 45 per cent higher than in the previous decade, and cotton cultivation resumed its pattern of profitable expansion. However, this was now on the basis of a high proportion of imported inputs, which made the crop extremely vulnerable to the price fluctuations that followed the onset of the 1973-75 world crisis. Inflation in the advanced capitalist countries increased the cost of imported inputs, and when cotton prices fell, profit margins were sharply squeezed. As a result, the area of cotton cultivated in Nicaragua began to fall in the late 1970s, that is, just before the revolution.

One response of Nicaragua's cotton producers was to call for the formation of marketing cooperatives in order to eliminate the cut taken by the large companies that dominated the country's export trade. But Somoza opposed this, for although he was himself a large cotton producer, he also owned many of the commercial and financial companies that were involved in importing insecticides, providing credit for working capital, and exporting the finished cotton.

An important feature of the Nicaraguan economy under Somoza was the ability of a few large commercial and financial companies to dominate the economy through occupying key points in the sphere of circulation. One aim of Sandinista policy was therefore to break the monopoly of these companies. However, the Sandinistas also attempted to take advantage of this structure. They hoped that if the state could take over the most important of these financial and commercial activities, it would be able to

exercise a commanding influence over the country's economy without having to take direct responsibility for the whole process of production.

The Sandinista Model

The basis of the Sandinista strategy was a mixed economy. This was partly because some sectors of the bourgeoisie participated in the class alliance which overthrew the Somoza dictatorship. But it was also a response to the structure of the Nicaraguan economy, in which peasants accounted for about half the population and capitalist farmers controlled the crucial agricultural exports.

The land belonging to Somoza and his closest allies was expropriated, and, as a result, part of the country's cotton production passed to the newly formed state farms, known as the Area of People's Property. Furthermore, agrarian reform and the introduction of rural credit resulted in a significant expansion of cotton production by peasants. Nevertheless, capitalist farmers have continued to be the principal producers of cotton in Nicaragua.

But if private producers have accounted for the greater part of cotton production, the state has attempted to regulate the sector by assuming a leading position in the sphere of circulation. A state company was established to import the major inputs, thereby breaking the former monopoly of a few large private companies, and another state company was set up to handle the retail distribution of inputs to producers in the state and peasant sectors. A policy of cheap inputs has been implemented by maintaining a low official exchange rate and through a system of price controls. The state has imported means of production, such as tractors, planes for fumigation, and harvesters, and these have been sold cheaply. The sale of mechanised services has also been subject to price controls. Credit of up to 100 per cent of working costs has been provided by the nationalised banking system at rates of interest that have been low in nominal terms and negative in real terms.

Finally, the state established a marketing company, ENAL, which has a monopoly of the export trade. Producers are required to sell their cotton to ENAL, which in turn sells it in the world market. The producers are paid mainly in the domestic currency, cordobas. At first they received the world price converted at the official exchange rate, but since 1982, the government has attempted to encourage production by paying a guaranteed price that is based on an estimate of the cost of production plus a margin of 20 or 30 per cent.

The system of guaranteed prices meant that the economic risk involved in cotton production is now carried largely by the state. However, the capitalist producers are very critical of the system. Most of all

they complain that while profits are guaranteed, they are in cordobas rather than in US dollars. The government, which is concerned not only to maintain production, but also to discourage capitalist producers from supporting the armed counter-revolution, has consequently responded by making incentive payments in dollars. At first this took the form of the right to buy a certain amount of hard currency at a relatively preferential rate — although because of the acute shortage, dollars were not always available. This was replaced in 1985 by a small dollar payment for output that exceeded a certain yield, and in 1986 this was superseded by a payment based on output.

The Decline of Capitalist Output

The extent to which Sandinista policy has succeeded in promoting cotton production can be seen in Table 1. This shows that compared with an average area of 220,000 manzanas (1 manzana = 0.7 hectares) in the 1970s, the total area has fallen considerably since 1979. For a while the government concentrated a large quantity of material and human resources on the cotton sector, and this succeeded in raising the total to over 160,000 manzanas (mzs) for two years, but this proved difficult to sustain, and the area then slipped back to just over 120,000 mzs. Within the total, there has been a decline in the area cultivated by capitalist farmers, although this has partly been offset by an expansion of the area cultivated by the state, and even more so, by the peasant sector. A large part of this peasant production is accounted for by cooperatives that were formed on land expropriated under the 1981 Agrarian Reform Law because it was left either idle or underutilised by its former owners.

The differing response of the various sectors to Sandinista policy is perhaps explained by the fact that they do not share the same aims. The aim of the state sector, which is not under the direct control of the market, has been to maximise production rather than to make a profit, and indeed relatively little attention was paid to financial balances until 1985. The aim of the peasant sector is primarily the reproduction of the household. Consequently, in principle, peasants are prepared to produce in return for an income comparable with a wage, and the fact that the guaranteed price also includes a profit is an added attraction. The aim of the capitalist producers, by contrast, is unequivocally to make a profit. Furthermore, because the profits are used, at least in part, either to buy imported luxury goods or to accumulate dollars, they tend to be valued, not in relation to official prices, but at the far higher black market exchange rate, which has at times been as much as 20 times higher than official prices.

Valued in this way the profits have amounted to relatively little, and so it is perhaps surprising that the

area of cotton cultivated by capitalists has not fallen even more. In fact, a study by the Ministry of Agriculture showed that the area cultivated was greater than might be expected on the basis of earlier trends, and it is also worth noting that the area in Nicaragua has not fallen as much as in nearby El Salvador and Guatemala in the 1980s.

One reason for this could be that capitalists in Nicaragua are threatened with the loss of their land if they do not use it productively. In conjunction with this, although credit is readily available, it is tied to the products designated by the government. Finally, although a number of capitalists have chosen to leave Nicaragua since the revolution, those in the agricultural sector are far more tied to the country than those who invested in commercial enterprises.

The Falling Intensity of Labour

In addition to the area cultivated, there are two other important factors that determine the amount of foreign exchange that cotton will earn: the yield and the world price.

The yield is important because the costs of production, including those of the expensive imported inputs, are determined principally by the area cultivated. The cost of producing a bale of cotton will therefore be higher if the yield falls. Unfortunately this is what has happened in Nicaragua since the revolution, as shown in Table 2. The fall in yields is partly due to the climate, although the main reason is that a lack of foreign exchange has resulted in shortages of essential

Table 1

Area of Cotton Cultivated in Nicaragua
('000s of manzanas*)

	80/81	81/82	82/83	83/84	84/85	85/86
State Farms	22.8	25.4	32.9	47.2	43.6	...
Peasants/Coops	12.5	15.2	19.1	41.4	45.5	...
Large and Medium Producers	99.4	92.1	77.2	77.6	75.2	...
Total	134.7	132.7	129.2	166.2	164.3	123.0

Source: Ministry of Agriculture and Agrarian Reform (MIDINRA)

* 1 manzana = 0.7 hectare

Table 2

Net Earnings of Foreign Exchange

	80/81	81/82	82/83	83/84	84/85	85/86
International price, \$/q	75.6	64.6	63.4	73.4	62.4	40.2
Yield, q/mz	12.2	10.4	13.6	11.2	9.2	8.9
Cost of imports, \$/q	30.5	36.2	29.4	35.5	42.2	45.0
Total income from sales, \$mn	131.5	92.2	116.6	142.4	94.5	41.2
Total cost of imported inputs, \$mn	50.1	48.5	50.4	64.6	61.6	46.2
Net Foreign Exchange, \$mn	81.4	43.7	66.2	77.8	32.9	-5.0

Source: Estimated on basis of data from ENAL and MIDINRA
quintal = 100 lbs

imported inputs. This has been most acute in the case of insecticides, which are normally applied up to 20 times in the course of a season, and which had a particularly marked impact in 1986 when crops were infected by a virus. The administrative mechanism for allocating foreign exchange has been gradually improved, and the government now tries to set aside dollars for the purchase of essential agricultural inputs, although the foreign exchange situation is often so pressing that it has not been possible to eliminate shortages.

Yields have also been affected by a shortage of labour, particularly at harvest time. The main cause of this has been the war, which has drawn off a large number of men and women into defence activities, and prevented the arrival of migrant workers who used to travel from El Salvador and Honduras.

Finally, it should be noted that the average yield fails to show some important variations. Capitalist farms have tended to achieve higher than average yields, although it is the smaller capitalist farms that have the best record, and those cooperatives that have received good land and a strong technical back-up have achieved comparable results. State farms, on the other hand, have achieved lower yields, partly because of a lack of administrative and organisational experience, and partly because of a fall in the intensity of work.

Although there is no guaranteed right to work in Nicaragua, the jobs of workers on state farms are fairly secure. However, the work remains monotonous and often backbreaking, and as a result there has been a reduction in both the intensity of work and the length of the working day. This is part of the economic cost of ending the dictatorial regime in the countryside. The government has tried to counter the fall in the amount of work that is done by introducing an important change in its wage policy. In place of a system based on a common flat-rate wage for the same type of work, it introduced a system in which workers still receive a basic wage, but in addition they are paid a bonus, either individually or as a group, for work that exceeds a certain norm, such as an area to be weeded. This appears to have gone some way towards recouperating the fall in the hours worked.

The Fall in World Prices

The fall in yields has meant that the cost in foreign exchange of producing cotton has risen. This has occurred at the same time that the world price has tended to fall (see Table 2). Most commodity prices fell following the 1980-82 world recession, but in the case of cotton the fall was exacerbated by a big increase in production in China, and in 1985/86 the world price fell below the cost of imported inputs.

The key balance for the cotton sector is net foreign exchange income — the amount by which income

from foreign sales exceeds the cost of the imported inputs necessary for the production process. An approximate figure for net income can be estimated using figures for the average consumption of fertilisers, insecticides, and fuel, and the wear and tear on machinery such as tractors, planes and harvesters. Despite the difficulties encountered by a revolutionary government attempting to promote a traditionally capitalist export at a time of deteriorating world prices, Table 2 shows that cotton production did result in a net foreign exchange gain, although the total has been falling, and in 1985/86 the exceptionally low world price resulted in a small loss.

It should also be borne in mind that part of the country's cotton output is not exported, but serves as raw material for the national textile industry. As Rhys Jenkins explains in his article in this *Bulletin*, the Sandinista government has been trying to develop industries in Nicaragua that are based on raw materials produced domestically. The textile industry is one of the most important of these, and domestic consumption of cotton is therefore likely to increase in the future. By using cotton that is produced within Nicaragua, the country's textile sector saves foreign exchange, and this needs to be taken account of in making a full assessment of the net foreign exchange earnings from cotton. At present the amount that is saved by supplying cotton to the domestic textile industry is relatively small, amounting to about \$2.5 mn a year.

There is one other important factor that should be recognised in making a full balance of the foreign exchange earnings from cotton, and that is the use of the cotton seed to produce cooking oil. This has provided a large part of the raw material used by the four plants that produce cooking oil. By reducing the need for imported, semi-refined cooking oil, this has saved foreign exchange amounting to some \$10-15 mn a year.

The Large Internal Cost

Although Sandinista policy has had some success in generating foreign exchange, the emphasis on earning foreign exchange has had a high internal cost. Nearly every year the guaranteed price paid to producers has been raised, partly because of inflation, but also as a response to vigorous campaigning by the producers' association. Table 3 shows an estimate of the average economic surplus per manzana of cotton, and how this was distributed between profit, rent and interest. The figures are, once again, averages. As a result of the variation in yields referred to above, the income of the capitalist producers tends to be higher than the average, while that of the state sector tends to be lower. Furthermore, costs tend to be higher in the state sector than in the private sector. Although this is

Table 3

Gross Profits from Production of Cotton
(córdobas per manzana)

	80/81	81/82	82/83	83/84	84/85
Sales of cotton and seed	10,481	10,874	14,784	16,740	32,890
Costs of production	7,469	9,435	9,981	12,928	15,984
Costs of marketing*	2,153	1,772	2,246	2,205	3,311
Surplus	859	(-333)	2,557	1,607	5,495
Rent	300	300	300	300	300
Interest	247	470	509	623	707
Profit	312	(-1,103)	1,748	684	4,488

Source: Estimated on basis of data from ENAL.

* Includes ginning and transport

partly because of administrative inefficiency, the main reason is that working conditions are better on state farms. There is usually a health centre, and many state farms also provide child-care and housing. In addition, the workers are generally provided with their meals and regular refreshments.

Turning to the division of the surplus it can be seen that rent has been fixed at 300 cordobas per manzana. This measure was introduced by the Sandinistas to benefit producers who do not own their land. This led to a large reduction in the rent paid by many producers, and inflation has subsequently reduced the real cost yet further. However, a flat rate has meant the suppression of differential rent, and this has had an unintended consequence. Producers on the best land will achieve a higher than average level of output, but the system of guaranteed prices is based on average output, and so these producers — who include many of the large capitalist farmers — will earn a much higher rate of profit than is intended when the guaranteed price is set.

After allowing for rent, the remainder of the surplus is divided between interest and profit. Over several years it can be seen that there has been a fairly equal division between interest, which goes to the state financial system, and profit, which is left with the producer, although in 1984/85 the producers — after particularly active campaigning for higher prices — finished up with by far the largest part.

The value of these profits can be gauged by the fact that the profit from 70 manzanas would equal the income of a senior professional or manager on the official salary scale. A poor peasant, by contrast, would farm about 10 manzanas. However, in 1985 there were still over 50 producers with more than 300 manzanas, and the leader of the anti-Sandinista private business organisation still farmed some

3,300 manzanas. These large producers therefore earned very large sums of cordobas, but — as explained above — they tend to value them at the black market exchange rate. At the time of the 1985 harvest this stood at 500 cordobas to the dollar (the official rate was 28 cordobas). Consequently, although the cost of financing the profits was very high for the state, the capitalist producers did not regard it as a great deal.

The cotton is sold in the world market by ENAL, the state marketing company, and the foreign currency it receives is changed at the Central Bank at the official exchange rate. This has regularly amounted to less than the guaranteed price paid to the producers: for most of the period in question, covering only two-thirds of the price, and in 1986 only one third. The difference has therefore had to be financed by the Central Bank through the creation of money. The amount created, known as foreign exchange losses, has been very substantial, often approaching the annual cost of the health or the education system, or something in the order of 10 per cent of the budget deficit.

As a result of the war and the US economic embargo, the Nicaraguan economy faces widespread shortages, and this has been reflected in growing inflation. Inflation has been facilitated by the creation of money, mainly to finance the budget deficit, which, as a result of defence expenditure, has amounted to up to a quarter of GDP. But to the extent that the system of guaranteed prices for cotton producers has also been financed by the creation of money, it too has contributed to inflation. In turn, inflation has undermined real wages by some 50 per cent since 1982.

In summary, the Sandinista government has promoted the cultivation of cotton in order to generate foreign exchange that could be used for its project of social

transition. Capitalist farmers have been encouraged to produce through a system of guaranteed prices that ensured them a profit in cordobas. But the gap between the official and the black-market price level meant that, while these prices were not valued very highly by capitalist farmers, the cost to the government was high. And while capitalists appeared to be receiving generous profits, inflation — facilitated in part by the financing of those guaranteed profits — was undermining the value of workers' wages. Nevertheless, the government's policies did succeed in generating foreign exchange, although, because of

falling world prices, this ceased to be true in 1985/86. Since 1986 there has been an important shift in economic policy. Following increasing peasant demands, land has been distributed to them from state and capitalist farms in a radical new phase of agrarian reform, and this has been accompanied by a far greater emphasis on the production of basic foods. But cotton has not been abandoned. The area has been cut back to about 80,000 manzanas in the hope that, by concentrating on land that can achieve a higher yield, the crop can once again begin to provide some of the foreign exchange that is so needed in the country.