

INSTITUTE OF CURRENT WORLD AFFAIRS

FM - 11

Trouble in the Zona da Mata

Recife,
Pernambuco.

Mr. Richard H. Nolte,
Institute of Current World Affairs,
366 Madison Avenue,
New York, 17.

20th. January 1967.

Dear Mr. Nolte,

The sertao, the dry and arid land in the interior of the North East of Brazil, and the Zona da Mata, the adjacent fertile coastal strip, have one outstanding feature in common; man's poverty. Yet some of the reasons for the poverty in the two areas must be distinguished. That of the sertao can be attributed partly to the harshness of the land on which its people live: whatever the social structure it would be difficult for its inhabitants to grow fat off the land, and only technological advances could do much to improve existing conditions.

The problems in the Zona da Mata, on the other hand, are entirely man made. The first thing to strike one on arrival is the contrast between the luxuriance of the countryside and the wretchedness of the workers. The soil and climate are ideal for many types of tropical agriculture, but for the past four hundred years the land has been devoted almost exclusively to the growing of sugar on very large plantations, a system of agriculture that has led to as much misery as exists in any part of the world today. The sertanejo may be as poor as the morador (resident worker) on a sugar plantation but at least he is freer and happier than the latter who is still virtually subjected to slavery, and in many cases is worse off than his slave ancestors.

For nearly ten years now the sugar zone has been in the limelight. Juliao and the Ligas Camponesas (Peasant Leagues) were the first to arouse the political awareness of the workers. In 1962 the movement was further encouraged by the introduction of labour laws with the effective foundation of unions or sindicatos and the enforcement of the minimum wage. The Church also took up the cause of the peasants, and by 1963 the worker had begun to be a force to be reckoned with, instead of being simply an entirely passive tool in the hands of his employer.

Although the rural worker is still a very weak force indeed, these steps were at least a beginning. Until that time employers were in reality not only owners of land but were also owners of men. With absolute impunity they could do what they liked with their labour force. They could burn down a worker's house, throw him out with no form of compensation, and even kill him with no fear of punishment. Now they have to be a little more careful, but they still wield the most extraordinary power. An employer can almost beat a man to death before the latter will go to court, since although the court may award ~~him~~ the unfortunate man compensation, his irate employer may subsequently sack him, leaving him penniless and homeless. Moreover, his sindicato may well provide him with a lawyer but lack of funds prevents them employing one of the best, and the employer almost certainly has a lawyer friend who is also a friend of the judge. In theory the worker is protected: in practice

he rarely has much hope of retribution against the abuses of his employer. Patronage and servility still dominate relationships in the sugar industry.

With the nominal strengthening of the workers' position, strikes over salaries became common, and frequently resulted in the loss of blood and sometimes of life. One plantation owner, a Recife trained lawyer, told me proudly that his men did not go on strike during this time. Why? Because although the sindicatos would pay their salaries for any days lost through the strike, the money would go through the employer, and he had told them bluntly that he would keep it.

For many plantation owners the introduction of an enforced minimum salary was a very real blow. In almost all cases this was a very great deal more than they had been paying, and in some cases it was twice as much. However, the increase to the employer was not always as great as it appeared at first sight since the salary had often been supplemented in kind with clothing or food. These gifts nevertheless were not made regularly, nor could they be counted upon by the workers, but were given on whim. The latter, moreover, are still dependent on their patrões for many of their daily needs, although some of the gifts have been reduced. The employers consider this paternalism generosity. For an outsider it is pathetic to watch the uncertain expectation of the worker and the unjustifiable power held by the giver. There is nothing warm or cosy about this kind of paternalism.

The employers suffered a temporary respite from the pressure of the minimum salary by the fortuitous rise in the world price of sugar following the Cuban crisis, but this did not last, and ever since then they have felt a continuous squeeze that they had never known before 1962.

The minimum wage varied from place to place, often in inverse relation to the local food prices. Since its introduction the wage has been raised several times, but in real terms it is far lower today than it was in 1962. The daily wage was then 1,100 cruzeiros and a kilo of xarque (the salted dried meat that constitutes the staple protein food of the workers) cost 800 cruzeiros. Today, the wage is 1,800 cruzeiros, but a kilo of xarque costs over 3,000 cruzeiros. I was told by one employer that until 1962 he used to pay the equivalent of a kilo of xarque for a day's work, and that this was a common custom: he also used to give ~~men~~ payment in kind periodically. If this is true, the peasant was indisputedly better off before 1962 than he is now.

The 1964 Revolution put a temporary end to overt discontent and demonstrations. The permissive and controversial Governor of Pernambuco Miguel Arraes and most of the potential revolutionary leaders including Julião were locked up or forced to leave the country. Communism became a dirty word, and the power of the unions was castrated. New leaders were appointed without an election whenever it was felt that those holding the posts might be over-zealous in their duties to the worker or might create trouble.

With their institutions greatly weakened, peasant organisations almost collapsed: from 1964 until very recently any political activities were carefully concealed and the general attitude of rural workers and their representatives has been one of apathy. Employers are supposed to deduct

five

per cent of the minimum salary from the wage as a contribution to the local sindicato. The employee can opt out of this only by signing to do so. Yet in many instances the five per cent is deducted at source but never reaches the local sindicato office; However, some new signs of activity by the ineffectual unions are becoming apparent. One particularly significant incident occurred a few months ago when a plantation owner removed the roof of a morador's hut to get him out. The local sindicato took photographs of this and showed them to the police. The employer was summarily arrested and spent twenty four hours in the police station. The sentence was nominal, but it was the first time the police had actually taken action against an employer at the request of a sindicato, and thereby set a precedent.

During the winters there is little work and employees have grown accustomed to receiving only a proportion of their proper salary. The minimum monthly salary is reduced by the simple, though naturally illegal, means of calculating the daily wage from the full monthly payment. Men are then only employed about three days a week thus reducing their already miserable pay by half. Theoretically the men could work elsewhere for the other three days but in practice the engenhos (sugar plantations) and usinas (sugar mills) are isolated and there are no alternative jobs to be found. From what I saw last winter, many found the only solution, in order not to die of starvation, was to go begging in the streets.

During the summers, the workers could expect to receive the minimum salary, though never more than the minimum, unless payment was by production. I was deeply impressed by the pride with which one plantation owner took out his pay book to show me how he paid all his workers the equivalent of eighty two cents a day. He really thought that he was being generous and that it would have been simply foolishness to have paid them more.

This summer, however, things have been different.

The six month harvest started as usual in September. Resident workers again started working full time after a particularly severe winter when not only was money very tight, but the weather was abnormally wet and cold. The labour force was augmented as usual by ambulatory workers from the sertão who seek work on a seasonal basis in the Zona da Mata. But for over three months now all of these have been receiving only a small proportion, if any, of their salaries. The situation is even worse than it was in winter since firstly it was unexpected, and secondly it has come at the end of a long period of suffering during which all reserves had been exhausted.

The workers are not being paid because the plantation owners are not being paid by the usinas, because these have not the money to pay them. Out of the forty-two usinas in Pernambuco, only about four have been paying regularly this season. The workers are sometimes receiving part of the owed salary, sometimes credit at the local store is given, and sometimes they are given payment in kind in the form of food. Often they receive nothing but the promise of future payment. The immediate result of all this is all too clear - a visible increase in their misery. Faces are more pinched and limbs of children are as thin as rakes although their stomachs remain swollen due to untreated worms and their unrelieved diet of manioc flour. The clothes of adults are in rags, and the children now usually go naked.

Whatever the alternative they are worse off than if they had been paid at the proper time. If the money owed were to be paid in full, which is unlikely, inflation in the meantime will have eaten into its buying power. If they are given credit at the plantation store, not only are they compelled to pay prices of a level that could only be demanded in such a monopoly, but also the choice and quality of goods is very limited. The owner of the store is often the plantation owner himself so that in reality the money never changes hands, but even outside owners are no more merciful. One local usina storekeeper recently even overstepped the mark and was finally removed by the police for over-exploiting his powerless and wretched customers. The owner and the manager of the usina, paying all the employees with notes of credit for this shop, had not bothered to visit it once to see what was happening in the establishment.

The crisis is by no means limited only to those employed in the sugar industry, nor is it devoid of multiplier effects. In our local município, typical of many, the prefeitura is almost entirely dependent upon two usinas for its income. As these latter have no money the prefeitura receives none and cannot pay its own employees. Teachers have not received their salaries since September, nor have other funcionarios whose normal salary is so low that they are unable to save. The taxi-driver who doubles as ambulance man is reluctant to carry sick passengers on the count of the prefeitura, as he is uncertain of receiving any payment. Shopkeepers are suffering from loss of trade and some have been forced to close: many sold on credit for a long time, but they could not afford to go on doing so indefinitely. Even the fishermen are feeling the pinch as they cannot sell their fish in the markets. Sometimes they swap fish for other commodities offered by the sugar workers, at other times they give them away out of pity. In short, there is not one sector of the community left unaffected by the crisis.

Until mid-December nothing was done: everybody waited patiently, unable to believe that the situation could last indefinitely, and each group waited for another to take action. Only then did things finally begin to happen: the workers on many of the plantations in Cabo, one of the larger and more important municípios, struck. This was a unilateral decision on the part of the local sindicato, but was encouraged by Padre Melo the parish priest who well before the Revolution had already been speaking out in the interests of the workers. The strikers felt that they were justified in doing so, as that was the only way that they could force the government come to their aid. However, this sindicato had seceded from the State Federation of Rural Workers a year earlier when Padre Melo had argued with Padre Crespo of Jaboatão, the other Church leader active in the organisation, and the Federation was not in favour of striking. Their official view was that a strike could not further their cause as the lack of payment was not the fault of the usineiros, who would suffer in the event of a strike, but the fault of the government for not putting up the price of sugar.

In the event, the strikers met with limited success. There was the first strike since the Revolution, and it passed off without any violence. Employers were anxious to reach an agreement as soon as possible since, if strikers are held in court to be in the right, they are entitled to full pay for the duration of the strike. Within two or three days almost all had gone back to work on the understanding that they would henceforth be paid regularly and their debts paid bit by bit by a specific date.

As I write this in mid-January things have eased up a bit: usinas are paying almost all their workers at least part of their weekly wages in cash as they have received some of the money owed; and it is now almost certain that the government will again come to their rescue. However, most back debts are still outstanding and in some cases the situation is still tragic. At least one usina has been unable to face its workers and has closed down, at any rate for the time being. The workers are now totally unemployed and have no hope of finding another job in the immediate future. On the verge of starvation they are being fed by the government with staple food from the Alliance for Progress, and have put in claims for their arrears, but the case is only to be heard in court next month.

This particular usineiro was one of the least responsible of an irresponsible race; having bought the usina only two years ago, he immediately proceeded to build for himself one of the most lavish houses I have seen here, using the sorely needed money from the usina. He did not even intend to live there, but to use it occasionally for weekends. He has now decided to close the usina as it cannot pay its way, and is waiting for the government to buy it from him out of pity for his employees. The current owner has, however, taken the precaution on separating his house from the rest of the property so that he can retain it for his own use.

Having briefly explained the current situation, two huge and complex questions remain to be answered: how did the industry get itself into such a mess, and what in the long run is to be done about it? In the short run it is universally agreed that the only solution is once again to cry on the shoulders of the government and ask for help in paying off the outstanding debts and thus reduce the immediate suffering. Yet it is equally clear that such an action is no real solution but just another deferment of a much deeper impending crisis that must before long be faced up to realistically.

The sugar industry is only effective for six months of the year, from September to March, during which time the cane is harvested and processed into sugar and its by-products. The rest of the year the usinas retain a skeleton staff to clean and repair the factory and means of transport, and the engenhos keep a reduced number of men, usually only partially employed, to clean and plant the land. During this period no income is earned by either, so that the costs have to be met either from the savings of the previous harvest or from bank loans. Almost invariably recourse is made to the latter, especially since, until very recently, these were relatively easy to obtain. Huge loans, primarily by the Bank of Brazil, were made for capital investment such as machinery, tractors and cattle. After an initial check on the sureties offered, there was very little control exercised over the actual use to which the loan was put.

Thus, far from being pumped into the sugar industry, most of the money went towards immediate improvements in the standard of living of the recipients. The abuses of capital by usineiros (who often own large tracts of land as well as sugar mills) are legendary. From the turn of the century usineiros have for the most part squandered the usina profits on an extravagant scale, buying personal luxuries and all the accoutrements of a Latin American gentleman. When these needs had been met they invested the profits in other more lucrative enterprises such as apartment blocks or factories in the South. The clearest proof of their abuses is to be seen in the usina machinery throughout Pernambuco. The inside of an usina often looks like a

print of the Industrial Revolution in 1800 with great steam engines made in England or France and dating from the first decades of the century. Very little machinery has been bought since 1930. Much the same pattern of behaviour has been adopted by the plantation owners, though on a smaller scale.

The usineiros killed the goose that laid the golden egg, so that recourse had to be made to loans from the banks. Yet these loans, specifically granted for improvement to the usinas, were also misused. Both usineiros and owners of plantations joke openly about these abuses. I have been told that such misuse has been made much more difficult in the past four years, but I doubt this. I know of at least one very recent case which I observed personally where a bank official spent the day visiting an engenho to check on the number of cattle possessed by the owner as surety on a loan to buy a tractor. The money arrived, and was promptly employed in buying the owner's wife a car to use in the city.

By constant abuse of loans and lack of investment usineiros have, for many years, found it difficult to meet their obligations, but ~~difficulties~~ have increased since the introduction of the minimum wage in 1962. Much of their current earnings go in the form of interest and debt repayment which, if the loans are making no returns can be crippling. A crisis has long been held off by the continued leniency of the government in coming to the rescue of the industry before the situation became critical. Were the price structure to be free, the usineiros might be able to extricate themselves and keep themselves solvent by raising the price of sugar, but fortunately or unfortunately this cannot be done.

As the usineiro rarely lives on the site, and tends to wash his hands of all responsibility for the daily affairs of the mill, he normally employs a manager to run it in his absence. One man is given total responsibility for all aspects of the industry, technical, financial, and administrative, and although he clearly cannot be an expert in all fields, he is usually trained as an agronomist and comes from a family long associated with sugar. Sometimes the managers appear to be chosen completely at random: one was a Frenchman who had met the usina owner on a Caribbean cruise, and although he had very little experience of sugar and none at all in the North East, he was invited on the spot to take on the job. What are badly needed are three or four experts in the separate fields instead of expecting one man to be a jack of all trades. One or two of the larger usinas have realised the wisdom of this, but most continue with an archaic system of management that cannot possibly maximize their profits.

At a lower level, most sugar factory workers are self-taught or hand their skills on from one to another. Jealousy or fear of losing their posts to younger men often prevents the older men sharing their ~~expertise~~ so that the younger ones therefore pick it up unnecessarily slowly. With the present surplus labour force this is not a grave problem, but as economies in the force are made, this unwillingness to impart knowledge will have serious effects.

The price structure of sugar is briefly as I described in FM - 4, but here needs further explanation. The organisation controlling the price and distribution of all sugar produced in Brazil is federally run, and is known as the Instituto de Açúcar e Alcool (Institute of Sugar and Alcohol). It can regulate neither the amount sold on the world market nor the world price, but

it acts in an official monopolistic-monopsonistic position within the country. Its policy is to buy for a prefixed price all the sugar produced, regardless of the quantity. Usinas are paid 80% of the price on receipt of the sugar, and the remainder when the sugar is resold.

In the past six years the national production has greatly increased but demand neither within the country nor abroad has risen to keep pace with it. Briefly, this is one of the main economic explanations of the present situation. Output has risen not only in the North East, but proportionately very much more in the far more efficient area of production in the South of Brazil. This latter area benefitted from a double stimulus to greater production: the rise in world prices following the Cuba incident, and the need for the IAA to pay a relatively high price to cover the costs of the less efficient North Eastern producers, thereby giving the Southern producers an unnecessarily high profit margin. By subsidizing the North East a little, giving her priority in exports, and preventing Southern producers selling in the North, the situation was improved a little, but as one recent report said, such steps constitute "an analgesic not a cure".

As time goes on the difference in productivity between North and South increases rather than diminishes. When there is an incentive to greater production, the plantation owner in the South is compelled to use his land more efficiently owing to the strong competition for land from producers of other crops: but his counterpart in the North East merely extends the area under cultivation. This naturally tends to be of poorer quality and more difficult to work so that the output per factor employed actually falls.

Hopes for expansion in the internal market are very limited. The South has benefitted in recent years from an increase in sales both per capita and through the population rise, but the market is now thought to be saturated and any increase will be restricted to population growth. However, improved transport links with the central part of Brazil should enable this area to receive some of the surplus sugar. In the North and North East consumption per head is less than half that in the South, but is unlikely to rise significantly without a considerable rise in per capita income.

The situation in respect to the world market is no brighter. There is already a flux which will almost certainly not be absorbed within the next five years. Most of the sugar exported by Brazil goes to the United States which pays a price nearly double that of the official world price, but this is for political rather than economic reasons, and there is little hope of the quota being raised.

The IAA is at present in the severe quandary of having a great deal of sugar on its hands that it cannot get rid of. It is seriously indebted to the usineiros who have not been receiving the 20% owing to them as the sugar is not all being resold. The IAA dare not put up the price on the internal retail market for fear that the elasticity of demand would be too high and the surplus would be even greater. On the other hand the elasticity would not be sufficient to warrant a lowering of the price in the hope of selling so much more that its income was increased. As an American friend pointed out, the government has let the whole burden fall upon its shoulders: it should have fixed not only a selling price but also a system of quotas so that it was not left with the problem of unwanted sugar on its hands. Any excess would then have to be

distributed by the usineiros themselves, and would probably result in a rapid reduction of the problem. As it is, the IAA is now in a dilemma. In the first place it cannot reduce the price paid to usineiros without increasing the human misery, but in the second place it cannot raise the price since this would further stimulate production, especially in the South. The current price has already been in operation for two years in the hopes of discouraging production and is itself contributing to the present suffering, as the cost of living has doubled in this period.

In the past few years the government has come to the rescue of the IAA and the usineiros, and helped them over their crises. As a result usineiros had come to expect a last minute reprieve and had not taken abnormal precautions during the winter or tightened their belts to meet the present emergency. On the whole, the last thing that would occur to a sector generally preoccupied with their own welfare, would be to economise on private expenses.

Although the immediate economic problem of the IAA is over production the problems of the North Eastern producers as a whole are far more deep rooted, and can only be resolved with a sweeping reform of the industry. At one level it can be said that past inefficiency indirectly contributed to the present surfeit, for the price of sugar had to be kept high enough to support the less efficient producers, thus not only keeping them producing when it was uneconomic for them to do so, but also stimulating the Southern producers to yet further production by their abnormally high profit margins.

Any major alterations in the industry are bound to have widespread effects. In Pernambuco alone about 170,000 workers are employed on sugar plantations and in the mills, which with their families constitute nearly a fifth of the total population. The proportion of these actually employed on the land is not published for Pernambuco, but for the whole of the North East there is the extraordinarily high figure of eight men for every acre of land under cultivation. Even in Hawaii before the industry was mechanized the ratio of men to land was very much lower. If only economic considerations were necessary, the solution would be simple: mechanize and reduce the labour force. Unfortunately social considerations prevent its immediate execution, and these are of such dimensions that they threaten to swamp any rational attempts at economic progress.

To reduce the labour force in relation to the area under cultivation could theoretically be undertaken in either one of two ways: either by retaining the men but extending the land worked by them, or by working the same amount of land with fewer men. However, the former solution is not practicable since production in the past was always increased by this means so that the area under cultivation already includes much land which, less suited to the crop, gives very low returns. Indeed it has been observed that the amount of cane obtained per acre has barely increased since the turn of the century, despite the greater use of fertilizers.

Conditions in the North East at present do not permit a rapid dismissal of perhaps half the total labour force. Firstly, the men are unqualified educationally to do anything other than what they have done all their lives. All but about ten per cent of the workers are totally illiterate, and all but a handful are entirely unfamiliar with the world outside their own engenho or usina. They are used to being completely reliant upon their

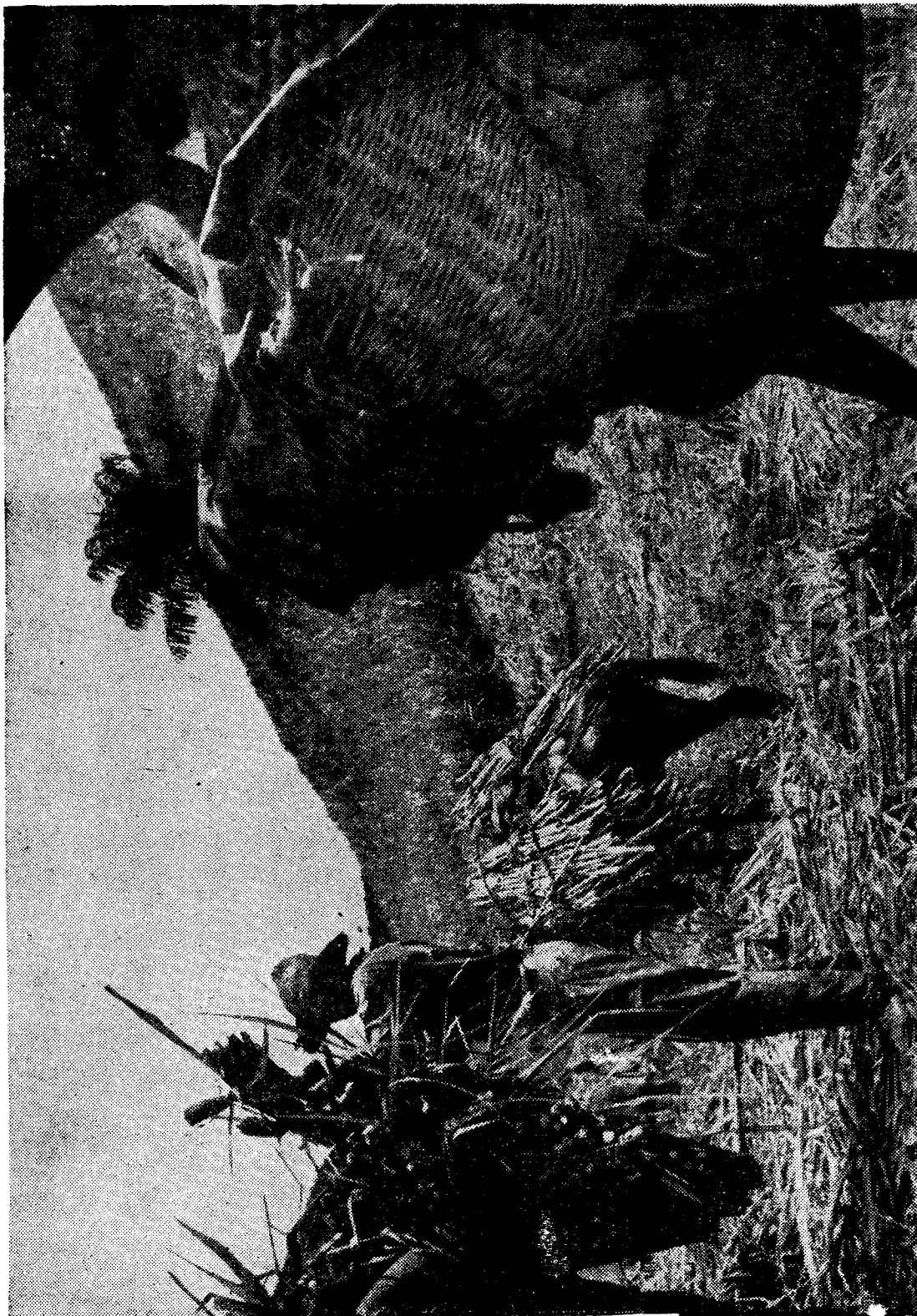
patrões and unaccustomed to taking any decisions for themselves. Few would even be able to grow other crops without being taught. Their capital resources are non-existent: were they to leave the neighbourhood and move to another area they could not even sell their houses to help buy another, since houses are the property of their employers.

Poor health, lack of education and lack of contact with the outside world have sapped any ambition that might otherwise have been held by the workers. The great majority are now a passive lot, resigned to being treated as pawns, and to spending the rest of their lives in miserable poverty. If they were to be thrown out as a body, probably only a few would have the spirit to voice an objection, and even fewer to organise any effective demonstration. At the moment if a man leaves one engenho, for whatever reason, he immediately seeks work on another, since he is qualified for nothing else. However, if eighty thousand men were thrown out of work simultaneously they would be forced to take to the streets since they could not possibly be absorbed back into the industry. In the long run they could be educated to do other work, but there remains the problem of creating these other jobs or of compulsory emigration. The problem of unemployment in the North East is already immense. Every time a factory is opened or advertises for men, huge queues wait patiently, sometimes for days, in the hope of obtaining one of the very limited number of posts. To release another hundred thousand men on the market could not but worsen the situation, unless the number of factories were increased by a great deal more than lies within the power of any existing organisation.

The most realistic solution for the foreseeable future is to keep the men on the land, and for the usina and plantation owners to free enough land to distribute amongst those thrown out of a job. Few would disagree with this as an end: it is the means that are disputed. To what extent should the government help the land owners in this? Should the authority responsible compel it? Or should each owner be left to solve the question as best he can? Various solutions are already being tried by private individuals and by official bodies, and several very much more ambitious plans have been proposed, based partly on lessons learnt from the experiments already being carried out.

In the past five years attempts at land distribution have been made on a large scale in two usinas in Pernambuco. In one case the owner of the usina was feeling very hard pressed after the introduction of the minimum wage, and was therefore anxious to reduce his labour force to cut his wage bill. At the same time SUDENE (Superintendency for the Development of the North East) was wishing to experiment with a cooperative system of land ownership on sugar plantations, and this organisation therefore arranged to rent an engenho (Tiriri) from the usina for ten years to see whether such a system could be more generally applicable. I propose to write about this experiment in my next newsletter; here, let it suffice to say that the problems to be overcome in teaching the workers to look after their own patches of land and to take on the greater responsibilities entailed have been much more serious than foreseen. The result has been a rise in production costs and the replacement of a senhor do engenho by a SUDENE functionario.

The other experiment in the distribution of land is being carried out in Usina Caxangá. The owner of this also met with problems after wage control became effective, and it was bought in its entirety by IBRA (Brazilian Institute of Agrarian Reform). This was a much more ambitious project than that of Tiriri, and in distributing the land among the workers the problems of ignorance



Loading Sugar Cane onto Mules in the Zona da Mata.

(Courtesy Jornal do Comercio)

have again arisen despite a fully detailed survey of existing conditions. At the present time the production costs of this usina are the highest in Brazil and, at least economically, it cannot be said to be a success.

From these experiments, the solution to the problem of excess labour would not appear to be a redistribution of the land, entrusting it all to the present employees. The latest idea is a compromise, and this is to be tried on a macro rather than a microeconomic scale.

Land taxation was exacted not by the federal government but by the prefeituras until a couple of years ago: since the local functionaries were also the local landowners, the taxes were never collected. Realising that a major reform of the system was needed, the federal government carried out a comprehensive survey of all the land in the country in order to collect the taxes centrally. The results of this survey, though its findings are undoubtedly inaccurate (landowners were simply asked the extent of the property, thus leaving open the possibility of lying or ignorance), have led to the introduction of a tax designed to penalize the larger property owners, and should encourage many of the usina and engenho owners to dispose of part of their lands. These will be handed over to IBRA for distribution among the workers who have been thrown out of their jobs; they will be given charge of the land and will send their sugar to be processed in the still privately owned usinas.

This suggestion is incorporated in the most sweeping proposals yet made for the sugar industry. In the early part of 1966 a new organ to be known as GERAN (Executive Group for the Rationalisation of the Sugar Industry in the North East), was set up under the authority of the federal government. On first sight it appears to be yet another example of the Brazilian passion for setting up government bodies to duplicate those already in existence. However, I was assured that the powers of this body are far greater than those of any one already formed, for its object is to use the resources and combine the programmes of five existing organs so that they can work together more closely. These five are the Banco do Brasil which will raise the money, the IAA which will be responsible for the pricing policy, INDA (National Institute of Agrarian Development) and IBRA which will between them take charge of land distribution, colonization and agricultural development, and finally SUDENE which has recently introduced an act aimed at attracting more private investment in the North East. This, known by its reference number as 34/18 will enable usinas to obtain large loans on favourable terms if they can put forward only five per cent of the required capital and use their land as security on another twenty five per cent. The money for these loans it is hoped, will be raised by private individuals investing through the Bank.

The aim of GERAN is to bring the cost of sugar production in the North East to within five per cent of that in the South by 1971. Incentives will be in the form of financial and technical assistance, but in each case of help periodic goals will be set and if these are not realised the aid will be removed. Thus it is hoped that the combination of carrot and stick will prove effective. Hitherto in other less ambitious schemes it is the stick that has very definitely been missing.

All the statistics published in the plan refer only to Pernambuco, but since this is the largest sugar producing state in the North East, and conditions of production are similar to those in the adjacent states, the suggestions and the objectives stated in the report can be applied equally well to any one of them.

One part of the report is devoted to an analysis of the current crisis, followed by suggestions for removing it. It also sets up goals for increases in productivity and a reduction in the labour force. The second part of the work consists of a more detailed explanation of plans for the redistributed land.

Some of the more important objectives stated are diversification and increase of the by-products of sugar, the diversification of agriculture which is to be carried out mainly by smallholders on land provided by the usineiros, and a greater production of crops for home consumption. These are all considered necessary to "create in the long run, conditions for the existence of a rural society that is economically and socially stable".

Much of the analysis and criticism of the present situation is based upon a very comprehensive report commissioned jointly by SUDENE and USAID, and carried out by the Hawaiian Agronomics Company. Among their recommendations to improve the efficiency of the industry, they press for a reduction in the labour force and an increase in the mechanization on the land. However, much of the land at present planted with cane is unsuited to mechanization as it is too steep or too boggy, so that some of it could be more profitably be put to other use by the usineiro or else given away. If he were to do this the landowner could only prevent his output falling by giving better treatment to the soil and making more use of fertilizers. Complete mechanization would not be necessary to bring productivity up to the specified goals; moreover, it would be both expensive and result in an unnecessary amount of redundant workers. What is urgently needed are deep harrowing and greater use of fertilizers so that the seed can be planted more densely.

One expert connected with GERAN told me that they did not suggest mechanization of the harvesting, but rationalisation of the existing process. For instance, the present system of cutting the cane entails a man tying up twenty pieces in a bundle after he has cut it. Another man is then responsible for counting the bundles and occasionally checking the amount of cane in each. The only implement for cutting the crop is the local type of hatchet, so that the sight in the fields during harvest time is exactly as it was two hundred years ago. Rows of black shiny backs are doubled over in the sun whilst the lower half of the bodies are covered with a pair of tattered trousers and the heads with a wide brimmed straw hat. The men are paid by production. The process could be made far more efficient if the men simply cut the cane and left it lying on the ground to be picked up by the lorry, thus removing the need to make bundles and the men to check them.

Within the usinas themselves, the length of the harvest period would be cut, but the number of effective days increased. Some investment in machinery would be required, and the least efficient usinas closed. A few have already done so, and are sending the cane to be processed in an adjacent usina.

With these modifications the labour force would be cut by nearly half, but many of the workers would remain in the area as owners of small plots of land of about fifteen hectares each. Under the auspices of IBRA it is hoped that they would plant sugar in the first place, then would gradually learn to diversify their produce. They would live in planned nuclei dependent upon larger settlements with social facilities. The plan is laid out in extraordinary detail, leaving nothing open to chance, and even dictates the exact area to be planted with feijao (beans) by each plot owner at the end of the third year, without considering that the market situation may well have changed before that time.

Although the monoculture has led to an unnecessary shortage of fruit and vegetables in the Zona da Mata, as many of them could well be grown on available land, people are nervous of doing so for fear of the price falling drastically during the season. The famous local example of this happening is onions which have recently been planted with great success in the São Francisco river valley. They are planted in such large quantities that the price in the Recife retail market falls to four cents a kilo or less when they are in season: when they are out of season and have to be imported from the South, the price soars to over forty five cents a kilo. At present most of the fruit and vegetables consumed in the Zona da Mata come from the Agreste, the temperate zone between the coastal strip and the sertão, where producers are encouraged by the current high prices they can obtain. Any large scale production near the coast would lead to an outcry from these as well as from the new producers who would expect the price to remain unaffected.

The suggestions mentioned above take care of two aspects of the general problem, labour and the efficiency of the usinas. The position could be yet further improved by investing in the weak infrastructure. An outstanding example is the lack of serviceable roads which adds greatly to the present transport costs. Lorries, which in terms of speed and bulk carried are clearly preferable to ox carts or tractors and carts, have extremely short lives due to the wear and tear from which they suffer, and on many engenhos small wood burning locomotives are still the prime means of transporting the cane from the field to the mill.

Poor health also contributes considerably to the social costs of production. Minimal medical facilities are provided, which combined with ignorance and lack of money result in a very low standard of health and therefore less work. In Usina Caxangá a survey of expenses was made, and from this it was found that eighty per cent of the workers' earnings went on food, but even this proportion is obviously inadequate to provide a balanced diet.

Judging by the number of totally illiterate workers, very few of them ever attended school. Most engenhos now have some sort of school, but the standard of almost all is still abysmal and attendance very poor. The prefeitura is supposed to provide a teacher, and the employer the building and equipment. Yet one friend recounted how he had asked for a teacher for his engenho. A woman appeared, but not only did she live two hours' walk away, but she herself was hardly literate. Moreover, she was seven months pregnant, and would therefore have been entitled almost immediately to a three month holiday. The prospective employer sent

her away in disgust, and since then has made do with his administrator teaching two or three days a week. Although most plantation owners now pay lip service to the need for education, most take singularly little interest in it, and there are still not a few who prefer their workers to remain ignorant. These employers see an inevitable link between education and workers' dissatisfaction with their present status. As one man said with disarming frankness, the more educated they are the more likely they are to turn communist; a totally absurd excuse for doing nothing.

Improvement of many of these factors is within the power of the usineiros. Other improvements could be made if the IAA and usineiros were to cooperate. One of the most urgent of such innovations is a large storage silo in Recife, the port from which most of the sugar grown in the North East is exported. The possibilities of this are being investigated at the moment. Up to now all sugar has had to be transported in sacks as there are no bulk storage facilities, but sacks are very expensive and over four million dollars a year are being spent on them in Pernambuco alone: with sufficient silos, much of this expense could be avoided.

All these improvements will result in a considerable increase in the total sugar production. The GERAN report estimates that production in Pernambuco will rise from 684 thousand metric tons in 1966 to 1002 thousand in 1976. Most of its estimates make 1971 the final date, but it is thought that with all the radical changes in the structure of the industry the full benefits of them will hardly be felt before that date, and production will only rise significantly after the fifth year.

Unless the market for sugar expands a great deal which is unlikely in the near future, the problem of the surplus will increase, and the IAA or the producers will be left with yet more sugar on their hands. In order to avoid this it will be essential to encourage investment in the by-products of sugar in addition to diversifying the use to which the land less suited to mechanized sugar production are put. GERAN does not make specific suggestions about this in its plans, but leaves the problem to each individual land owner to resolve in the manner most suited to his particular case. Three usinas, with the stimulus of loans under the 34/18 scheme are already pioneering with extremely ambitious projects which, if they are followed by others, will revolutionize the whole of the North East sugar zone within ten years.

The first of these, Usina São José, already implementing its plan, is a rather special case. The owner of the usina is a multi-millionaire industrialist with many other interests besides sugar. One of these is cement, and since phosphates and calcium have been found on part of his property, he is going to turn some of the land over to the cement industry. The amount of land devoted to sugar will be greatly reduced, some fifteen per cent of the land will be given to the workers made redundant by the alterations, and the production will be mechanized with the greater use of lorries to replace the railways and ox carts.

The other two usinas start without such natural advantages and their examples could easily be followed by others. One of them, Usina Cucaú, has relatively hilly lands which are unsuitable for sugar production and the owner is planning to use much of the land for cattle grazing. He proposes

to increase the output of sugar per acre to a point at where he produces the same quantity as he is at present, but leave land sufficient for grazing thirty thousand cattle. Most of the meat consumed in Pernambuco comes from outside the state; moreover, local consumption is very low (due to the high price) but could well rise if the price were to fall. Several usinas could easily produce a large amount of cattle without flooding the market.

The third experiment is the most ambitious of them all: it is the most costly, but could also prove to be far the most lucrative. This is to be tried in Usina Salgado, one of the larger ones. The land is generally considered some of the best in the state, being both level and rich, and for this reason the owner is planning to continue planting cane rather than put the land to other use. After giving about half the land away to his redundant employees, he is going to mechanize the remainder in order to increase his crop, but instead of concentrating upon the production of sugar to the exclusion of all else, he is going to set up a sugar-chemical industry using by-products of cane. The possible uses to which by products can be put are very varied, but this particular usineiro will be concentrating upon insulators and hardboard made from bagaco (cane waste), citric acid, refined alcohol, and a chemical used in the manufacture of nylon. The total cost of the project will be in the order of fourteen and a half million dollars, but it seems to be a very worthwhile investment.

These two latter usinas, Cucau and Salgado, are similar to many of the larger usinas in the North East, and their projects could easily be adapted to others. Those with better lands and with the financial means would do better to develop the sugar-chemical industry. For those with land which could never be fully mechanized and have poorer soil, the land could be more profitably used for cattle breeding.

These plans, however, could not be implemented in all the usinas. One expert on the subject reckons that in only twelve out of the forty-two in existence would schemes for mechanization and diversification be feasible: the remainder either lack the money or their land is too poor. What is to be done with these?

One possibility is that the government might take over the usinas which cannot pay for themselves for some reason. However, it is not anxious to do this: their experiment with Usina Caxanga has not been a success. If for humanitarian reasons it is forced to buy a collapsing usina, it may well sell off the various engenhos belonging to the usina to separate buyers in order not to be burdened with the land problem.

The happiest economic solution would be for two or three usineiros to collaborate over their land and money, making one efficient modern mill to cope with all the cane, and devoting much of the land to cattle or investing in a sugar-chemical factory. Unfortunately such a suggestion is fraught with human problems: usineiros are most unlikely to be willing to collaborate with their neighbours, would inevitably suspect their motives, and later accuse each other of cheating.

In the event, therefore, two possibilities remain open: the small usinas will be bought either by the owners of larger ones to extend their own schemes, or by outside industrialists to develop the sugar-chemical

industry. The former is the more probable in most cases, since an outsider would be buying, together with the usina, ~~all~~ the problems of an antiquated industry and surplus labour force. I know of at least one usina which the owner has been trying to sell for two years but cannot find a buyer as nobody wants to take on the social problem in particular. On account of this the price is now ludicrously low and a scheme is in hand to buy the usina, get rid of all the men by paying them compensation, and then selling to an industrialist for a very much higher price. I happened to be there when the plan was being discussed. Far from taking into consideration the feelings of the workers, the idea was to try and trick them of their full legal compensation and thus buy them out cheaply. The social problems and misery this plan might cause did not seem to occur to the prospective buyers, though one man, not there at the time, had opted out as he had known the workers concerned since childhood and had not the heart to cheat them.

As regards the future two things are certain; the organisation and production of the sugar industry will be very different in ten years' time, and changes will necessarily involve wide scale unemployment and a great deal of suffering. The present crisis has brought home the urgency of the general situation and things cannot go limping on much longer. A few of the more enlightened usineiros have already begun to make small innovations such as using the liquid waste from the cane as fertilizer on the fields, but nothing on the scale of the three experiments mentioned above has yet been tried. And to break the back of the problem, most usineiros will have to think of future investment on a much higher level than they have done hitherto.

The setting up of GERAN shows determination on the part of the government to find a long term solution: it remains to be seen whether the usineiros and plantation owners will follow suit.

To quote a recent article on the subject:

"Who will win, productivity - the future, or inefficiency - the past?"

Yours sincerely,

Fanny Mitchell

Fanny Mitchell.

Received in New York February 8, 1967.