

THE MAJOR EXPORT CROPS

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1. ROBUSTA COFFEE

THE ROOTS OF CURRENT PROBLEMS

Background to the Robusta Coffee Crop

Coffee dominates the present economy of Uganda and has done so, albeit to a lesser degree, since the early 1960s. Coffee's contribution to foreign exchange earnings had risen from around 50%, overtaking cotton in the early 1960s, to 58% by 1970. With the collapse of other exports such as cotton, tea and copper the proportion had risen to no less than 93% in 1977. The coffee industry is the largest single employer when the production, processing and transport sectors are put together. The coffee export tax dominates government revenue, contributing over 60% of the national revenue budget in 1977 (Shs. 2,000m.).

2. Two types of coffee are produced:

- Robusta, classified as hard coffee in the trade, and
- Arabica, the East African production of which, when wet-processed, is rated as a mild coffee and usually receives a quality premium over robusta; this crop is discussed in the following section.

3. According to estimates made by the Ministry of Agriculture, robusta coffee occupied an area of nearly 200,000 ha. in 1977 (detailed area estimates are unreliable given the absence of an agricultural census since 1963/64). This is located in the fertile, heavier rainfall areas of Buganda Region, with some smaller outlying areas in Busoga and Western Region but these amount to less than 7% of the robusta area. The greater part of the Eastern and Northern regions are unsuitable for coffee production. These areas do not share in the boom period prosperity which occurs with coffee from time to time, so that the distribution of the revenue of the coffee crop is a major political issue in the country.

4. Robusta coffee is produced almost entirely in the small-holder or informal rural sector of the economy, large-scale production having declined over recent years to less than 2% of the crop.¹ Coffee is often grown interplanted with another perennial crop - bananas - and sometimes with annual crops such as beans or sweet potatoes. The main cost of production is labour, especially for weeding and harvesting and much less frequently for pruning, spraying or applying fertiliser (these latter operations are recommended but for reasons discussed below were rarely carried out in the 1970s). Consequently, the costs of production are largely determined by:

- alternative opportunities - on the farm or off it - for the farm family work force, and
- the wage rate for hired labour.

5. Robusta coffee is usually sold by the farmer as sundried cherry (kiboko) to a cooperative society or trader whence it proceeds to a hullery owned by a cooperative union or private processor where the cherry is removed. The alternative wet processing method has virtually disappeared along with the small premium which wet processed robusta enjoyed before the world coffee shortage began in 1975. The hulled coffee is (or should be) finally milled at the Coffee Marketing Board (CMB) mills in Kampala before being exported as green coffee.

6. Between 1969 and 1974 the cooperative movement had a monopoly on buying and processing all kiboko in Uganda. Before and after these dates, however, processing has been shared between the cooperative unions and private coffee factories.

¹ Information supplied by the Coffee Marketing Board

Damage due to the War of Liberation

7. The robusta coffee producing areas of western and central Buganda experienced some of the sharpest fighting in the liberation war. The damage in Masaka District was largely inflicted by the Tanzanian forces as retribution for Amin's occupation and destruction of the Kagera area of West Lake Region before a decision was taken to advance further into Uganda with the objective of ousting Amin altogether.

8. Table 4.1 indicates the estimates of damage and loss submitted by the major robusta processing cooperative unions. These losses are superimposed on the generally weak or parlous financial condition to which the unions had been reduced by the pricing and foreign exchange licensing policies of the Amin regime (see Paper 3 above).

9. The most serious consequences from the point of view of the recommencement of operations are:

- the appropriation of lorries;
- the loss of coffee stocks by war damage or looting; and
- theft of cash at union and society levels¹.

These have combined to remove both the physical and financial means to move the coffee crop from the societies to the unions. Coffee buying has been suspended since January or February this year, only two-thirds of the way through the main crop season in most of Buganda. As the war also disrupted the alternative smuggling route, large stocks of coffee are currently held on the farms or, where they have not been looted, at the society and union levels. These stocks are estimated to be in the range of 40,000 - 60,000 tonnes clean coffee, representing a large sum of foreign exchange (Shs. 1,200 - 1,800m. at the current price of \$1.80 per lb.).

10. Crop finance and vehicles for the robusta coffee unions² are absolutely top priority items, therefore, which should be largely covered during the emergency aid phase of reconstruction, i.e. June - October 1979. The situation is particularly serious in the Masaka area where the main crop is currently being harvested and buying operations should recommence in July at the latest.

Effects of the Policies of the Military Regime

11. The most striking feature of Uganda's coffee industry in recent years has been the huge disparity between the value of robusta coffee on the world market and the price paid to the producer. When the 1975/76 price was raised to Shs. 2.50 per kg. kiboko (raising the average returns to the producer for the first time above the 1953/54 peak year) the equivalent value on the world market was over Shs. 13. A staggering 69% of the crop value was retained by the Ministry of Finance as export tax or as proceeds to the Coffee Price Assistance Fund. This proportion rose to 75% in the following year (see Table 4.2).

12. In neighbouring Kenya, Rwanda and Zaire where tax deductions were small, very much higher prices were obtainable - around three times the Uganda producer prices. Even in Tanzania where a sliding scale export tax is levied, prices have been 150-200% of the Ugandan level. In addition, as inflation gathered pace in Uganda in the last few years the weakening purchasing power of the Ugandan shilling gave a further sharp twist to the boarder price differential. By 1978 the differential reward for selling coffee

1 It is not possible to distinguish theft and looting by the military of either side on the one hand or by the civilian population on the other. Major facilities were abandoned by the staff for several weeks. During this time it appears that Amin's troops especially broke open buildings looking for vehicle spare parts and cash and thereafter the open buildings were easy prey for certain elements who moved in to systematically remove equipment and spare parts. Finally, in some cases some of the general public stole consumer goods, roofing sheets or coffee.

2 The Coffee Marketing Board offices have also lost one lorry, five cars and two small buses which should be included in the vehicle provisions for the coffee industry.

illegally in Kenya and using Kenya shillings to import consumer goods was probably in the region of 3000%.

Table 4.1
Damage and Losses sustained during the Liberation War by Robusta
Coffee Cooperative Unions
(Shs.m.)

Unions processing Robusta coffee	Physical damage	Vehicles value (no.)	Looting and theft	Total
Busoga G C U	-	3.0*(9)	-	3.0
East Mengo G C U	15.0	4.6(14)	5.3	24.9
West Mengo G C U	1.9	0.2(1)	4.8	6.9
Wamala G C U	-	1.5(5)	28.5*	30.0*
Masaka G C U	24.6	2.2(6?)	27.0	53.8
Bunyoro G C U +	-	3.4(10)	18.8	22.2
	41.5	14.9(45)	84.4	140.8

Notes: + Robusta coffee represents a minor part of the business of this Union.

* Rough estimate only.

Source: Cooperative Union submissions to the Team; all these Unions were visited and the major damage visually inspected by the Team, but the detailed estimates have not been verified.

Table 4.2
Distribution of Coffee Crop Value (%),
Uganda 1972/73 - 1977/78

YEAR	FARMER	MILLER	CMB ¹	TAX	SURPLUS ²
1972/73	39	10	11	30	10
1973/74	27	7	8	43	15
1974/75	32	8	10	39	11
1975/76	19	5	7	56	13
1976/77	15	4	6	66	9
1977/78	28	6	6	63	-3

Notes: 1 CMB : Coffee Marketing Board

2 The majority of the 'surplus' shown is paid by the Treasury into the Price Assistance Fund, which despite its name is used as a source of funds for budget expenditures in other sectors.

Source: Coffee Marketing Board

Table 4.3

Average Producer Prices for Coffee - Uganda, Kenya, Tanzania, 1974-79

		1974	1975	1976	1977	1978	1979
A. Producer Prices ¹ :	Uganda	15.2	15.9	15.2	27.2	40.4	42.55
(US Cts./lb	Kenya	62.9	59.7	121.4	218.6	149.6	na
green bean equiv.)	Tanzania	38.8	31.8	59.3	101.0	76.5	na
B. Producer Prices ² :	Uganda	1.19	1.25	1.40	2.50	3.50	3.50
(National curren-	Kenya	9.82	9.40	22.30	40.14	26.06	na
cy) Shs./kg.	Tanzania	4.80	4.00	8.40	14.90	11.00	na
C. Producer Prices ³ :	Uganda	1.55	1.29	0.99	1.11	1.04	0.86
in constant terms	Kenya	12.12	9.90	21.04	34.6	20.04	na
(Shs./kg. July	Tanzania	7.00	4.30	8.20	15.20	8.00	na
1975 = 100)							
D. Average Export ⁴ :	Uganda	53.2	49.1	88.3	188.0	125.1	na
Values (US Cts/lb	Kenya	68.1	63.8	131.8	237.3	170.5	na
green bean	Tanzania	58.2	52.2	119.7	223.1	153.3	na
E. Proportion of	Uganda	28.6	32.4	17.2	14.5	32.3	na
Export Value	Kenya	92.4	93.6	92.1	92.1	87.7	na
paid to Produ-	Tanzania	66.7	60.9	49.5	45.5	49.9	na
cers (A/D)							

Sources: 1 Table IV - 15 International Coffee Organisation, Quarterly

2 Table IV - 12 Statistical Bulletin on Coffee, October - December 1978 No. 8 (preliminary) May, 1979

3 Table IV - 13

4 Table IV - 8

13. Table 4.3 compares average prices received for Uganda coffees with those for Kenya and Tanzania. Row C suggests that in real terms the producer price of Uganda coffee had fallen by 45%. In fact, this is an under-estimate due to the faulty construction of the Uganda cost of living index used by the International Coffee Organisation to deflate market prices.

14. In these circumstances, it is less surprising that smuggling took place than that the majority of growers were still prepared to sell their coffee through the official channels. Rough estimates of quantities of coffee smuggled over the last four years are shown in Table 4.4 below:

Table 4.4

Estimates of Production, all Uganda Coffee, 1975/76 - 1977/78
(000 tonnes)

	1975/76	1976/77	1977/78
Recorded 'output'	137	157	121
Estimated smuggled quantities	25-30	50-55	45-50
Estimated production	161-167	206-211	166-171

Source: Verbal communication, Coffee Marketing Board

15. In addition to the losses of coffee from the official channels through smuggling, with the usual distortions in the pattern of income distribution which are associated with high-risk illegal activity, further losses to society occurred through theft of coffee in transit between the CMB mills in Kampala and its auction godowns in Mombasa. In 1976/77 the accounts of the Board showed a loss of some 24,800 bags which was valued at US\$94m. With the lower prices in 1977/78, this loss had declined to US\$18m.

16. The possibility of further losses arising through deliberate understatement of CMB purchases cannot be ruled out. The auditors' reports on CMB accounts have stated in every year since 1973 that:

- No quantity reconciliations of coffee movements during the year were prepared by the Board, as a result of which we have been unable to satisfy ourselves that all coffee purchased by the Board was accounted for.

Similar statements recur annually in these reports in respect of accounting for coffee bags. There were also other irregularities reported in each auditors' report. The responsibility for taking remedial action on receipt of such reports rests with the Ministry of Cooperatives and Marketing, but no action, apparently, has been taken to date.

17. Also it was widely alleged by cooperative union committee men that grading by CMB inspectors was subject to pecuniary influence. No systematic attempt was made to collect evidence on this issue but the widespread and anecdotal nature of the evidence indicates that the full trust of the Ugandan grower cannot be said to reside in the Board responsible for selling his coffee.

18. Coffee growers also suffered problems similar to those which affected all farmers under the previous regime:

- delayed payment if they sold to the cooperative side of the market. This was strictly illegal but due largely to problems of financial control within the cooperative movement;
- lack of production inputs, especially hoes, fertilisers and sprays;
- cessation of short and medium term production credit;
- lack of coffee drying trays;
- lack of bicycles and gunny bags to transport coffee from the farm to the society store or factory.

19. The cooperative unions responsible for processing and onward sale were also experiencing the usual run of problems, especially:

- narrow processing margins allowed by the Ministry of Cooperatives and Marketing;
- transport bottlenecks due to old vehicles or lack of spare parts;
- breakdowns in processing machinery, leading to over-large backlogs of coffee and hence higher interest charges on unrepaid crop finance;
- inadequate storage space to accommodate the inflated stocks, lack of roofing sheets and cement to build stores and therefore damage to inadequately stored coffee;
- competition from the private sector which had closer access to illicit marketing channels and paid cash on purchase of the growers' coffee, usually at prices above the price offered by the cooperatives. Lower throughput reduced cooperative union and society revenues in relation to stationary or rising levels of overhead cost;
- cooperative officials and members were barred from

relevant training courses given in overseas countries deemed to be unfriendly to Uganda.

The most tragic result of these problems perhaps is the opportunity lost to expand the coffee production base in a unique period of high prices without an operative quota restriction under the International Coffee Agreement. Without these problems Uganda would probably be heading for a 300,000 tonne crop in the very near future. This opportunity may not be quite lost; if it is, it will affect at least the next generation to come.

THE TASK AHEAD

20. Three major objectives confront the coffee industry under the new Government. The first is to maximise the proportion of the crop sold through official channels, i.e. to minimise the illegal border trade in smuggled coffee; the second is to raise producer levels in the short-term and the third is to raise the future production capacity of the crop by both expanding the planted area and by replacing old or poorly established coffee.

21. The achievement of these objectives requires a continuation of incentive prices, appropriate institutional arrangements, and the provision of adequate resources for producing, processing and transporting the expanded crop.

POLICIES AND RESOURCES REQUIRED

Policies and Institutional Arrangements

22. The incentive for the Ugandan grower to produce more coffee and to sell it through the official channels must be sharply and significantly improved. Whilst greater availability and falling prices of consumer goods will raise the incentive to produce more coffee, a strong border differential will remain unless the producer price is raised to around 70% of the price in neighbouring countries. From our earlier analysis (Paper 3) we concluded that the robusta kiboko price should be doubled to Shs. 7. This would best be financed, in part at least, by an external devaluation of the domestic currency (see Paper 25 for the detailed analysis).

23. The possibility of illicit sales of coffee once it has reached the official marketing channels must be eliminated. To strengthen grower confidence there should be visible signs of vigorous government action in this area. The Ministry of Cooperatives and Marketing must take the necessary action on the auditors' reports of the CMB; at the least, the suspension is indicated of the most senior responsible officials whilst an official committee of enquiry reports on further action to be taken. This committee should hear evidence in secret from staff of the Board and of experienced and reliable persons outside it in the coffee trade and in coffee production.

24. The composition of the Board's membership should be reviewed as soon as possible so as to increase the effective representation of coffee growers. Under the present circumstances where revenue from coffee dominates the government budget, the role of the Ministry of Finance in determining coffee price policy is inevitable. In the longer term, however, there would appear to be considerable advantages (which hardly need elaboration in the light of the last eight years' experience) in replacing direct taxation, including export taxes and marketing board surplus, with indirect taxes such as sales tax and import duty. Under this kind of fiscal structure the coffee industry could become largely self-regulating in a way similar to that recommended for tea. Given representative producer control of the Board, the possibility (and temptation) of creating a dual marketing structure for coffee - which was presented to and exploited by the military regime - would be removed.

25. Given its abuse, it would also strengthen producer confidence if the so-called 'price assistance fund' were abolished as an accounting device. The original purpose of this fund would be secured, however, if the actual incidence of export duty, for as long as it continues, were calculated not on the export price but on the difference between the export price and the price actually paid to farmers in the previous quarter. The minimum producer price announced at the beginning of each quarter would be set in the light of (i) the expected export earnings, (ii) the target export duty yield¹, (iii) processing and marketing costs and (iv) the surplus or shortfall in export tax revenue

¹ This would be calculated on a sliding scale related to export prices, as at present.

earned in the previous quarter. Price setting would aim at eliminating any 'surplus', i.e. as high a producer price as possible would be set as compatible with the set of expected and actual values. Treating export duty as the residual element is not expected to add to fiscal uncertainty, as international price movements which are impossible to predict accurately, affect the yield under any alternative tax structure.

Investment Projects

26. A major coffee rehabilitation programme is recommended. At expected levels of world prices over the next few years, the improvement of productivity of existing coffee is expected to show a very high return. Also new high yielding varieties of coffee developed by the Ministry of Agriculture's Research Division should be used to replace old or badly established coffee and to provide sources of income for new entrants to the farm population.

27. The programme consists of two projects for robusta coffee.¹ The first consists of a major extension campaign to demonstrate improved production practices and to provide pruning and/or replanting services and inputs to growers. The cost of this project totals Shs. 13.9m. over two years, including foreign exchange costs which are estimated at Shs. 13.6m.

28. The second project consists of the provision of fertilisers, insecticides, spray pumps and farm tools to coffee growers, together with vehicles for the agricultural extension field staff assigned to coffee duties. Inputs should be made available to farmers for cash or as short-term production credit both via cooperatives and via a special agricultural scheme using the shops in the rural service centres as points of supply. The total cost of this project is Shs. 172.37m. over two years.

29. The effectiveness of these projects will depend in large part on a strong incentive system for sales through the official marketing channels and on the effective organisation and equipment of the agricultural extension service. The latter must be galvanised into action after some years of being starved of resources to do an effective job. A series of staff seminars and short courses should be organised in advance of the receipt of donor support. Although benefits will accrue from stirring farmer enthusiasm for a national coffee productivity campaign, an advisory rather than a directive stance by the extension service is more likely to generate the cooperation and trust of the growers which must be carefully restored after the years of neglect and exploitation by the Amin Government.

30. Measures are urgently required to restore the operational effectiveness and financial viability of the cooperative unions which play an irreplaceable role in the marketing and processing of the robusta coffee crop. These measures have already been outlined in Paper 3 above. They need to be worked out in detail for each particular union, and together with the revised producer price put into effect as quickly as possible without waiting for the conclusion of arrangements for donor support for the coffee rehabilitation programme.

2. ARABICA COFFEE

THE ROOTS OF CURRENT PROBLEMS

31. The greater proportion of Uganda's arabica crop is grown on the slopes of Mt. Elgon. It usually has a higher unit value than robusta and therefore its contribution to export earnings is generally greater than its proportionate volume; in 1970 it constituted 6% of total coffee production but 9% of export earnings. All arabica grown on Mt. Elgon is bought as parchment and that which is sold in Uganda is subsequently processed by the Bugisu Cooperative Union's mill at Mbale. Small quantities of arabica coffee are also grown in Ankole, Toro and Kigezi districts. They are all sold as kiboko (official purchases of arabica from these districts amounted to 1975 tonnes in 1976/77).

32. Bugisu arabica has been smuggled to Kenya on an extensive scale. In 1970/71, 12,945 tonnes of parchment were purchased by the Union and this rose to 15,514 in 1972/73.

¹ Details of these projects are available in papers filed in the Commonwealth Secretariat; they are also obtainable directly from the Ministry of Agriculture in Entebbe.

From this peak purchases dropped drastically to 971 tonnes in 1977/78. It is estimated that 6,000 tonnes will be purchased in 1978/79 but the quality is low.

33. From 1970/71 to 1976/77 the price paid for parchment remained virtually unchanged even though consumer prices greatly increased and the unofficial value of the Uganda shilling fell relative to the Kenya shilling. This provided a major incentive for individuals to become smugglers and, as a result, an increasing proportion of the crop found its way across the border to Kenya. The price paid for parchment was increased in 1977/78 (from Shs. 4.65 per kg. for Grade I to Shs. 7.70), and this price was maintained during 1978/79. In that season considerable pressure was put on producers to sell the crop to the Bugisu Union. As a result purchases greatly increased but the quality fell drastically - much coffee having a moisture content of 24 to 30% rather than the desired 13%. At the same time, the Kenya authorities stepped up their anti-smuggling activities.

34. It is, of course, impossible to assess the total volume of the crop, but even though the area under coffee has been estimated by the District Agricultural Officer to have remained constant (at 14,100 ha.) throughout the period under review it seems highly likely that there has been a significant decline in production.¹ The principal reason for this has been the effect of the fall in real terms of the price offered by the Union. This was, of course, offset by the possibility of smuggling but that was always associated with risks and the lack of easy access to imported goods gave the majority of producers little incentive to take them.

35. Transport in the area has been a major problem. Roads were originally looked after by the Bugisu Coffee Board but in 1960 they became the responsibility of the local administration. Since 1972 they have deteriorated markedly and are often impassable. In addition the fleet of vehicles owned by the Union has been greatly depleted - in 1970 it had 40 lorries operating but it now has only 10, many of which are rarely available for use because of the lack of spare parts, including tyres. The Union's transport situation has been further exacerbated by the looting of one lorry and a Fiat Campagnola. The reduction in the availability of Union transport may have been partially offset by the increase in trucks owned by smugglers. On balance, however, it seems likely that the number of vehicles servicing the area decreased over the period under review.

36. The lack of transport has meant that coffee has often been stored for long periods in the primary society stores and this has prevented them buying any more coffee. Coupled with this has been the decreasing liquidity of the entire Union, due to the low margin between the purchasing price of parchment and the selling price of processed coffee to the Coffee Marketing Board (CMB) and to the reduced through-put of the mill. Accumulated losses of the Union have, since 1971, reach Shs.11 m. and to this problem must be added the fact that the Union suffered losses of Shs. 1.8m. as the result of recent looting. In the 1978/79 season the Amin administration forced the Union to buy all parchment coffee offered to it at Grade I prices even though much should have been rejected. Onward sales to the CMB are bound to be at a loss. The Union requires advances of Shs.500,000 per day at the height of the buying season, but after liberation, like all other businesses, it was unable to draw more than Shs.50,000 per week from the Uganda Commercial Bank. This restriction was lifted in June, but overdraft limits now play a similar role. As a result primary societies are currently holding between 1,500 and 2,000 tonnes of parchment which the Union is unable to buy.

37. Crop husbandry has fallen in standard - chemical in-puts have become virtually unobtainable, except at magendo prices, and the lack of hoes, etc. has led to considerable areas of coffee becoming overgrown and unpruned. The coffee spraying programme to control Antestia, leaf rust and coffee berry disease has not been effective for several years.

38. In the 1960s a series of central coffee pulperies was established in order to overcome the problems of quality control associated with the use of hand pulpers. Eventually there were 28 but by 1974 only six remained in operation. Since then none has operated and the entire crop has been pulped by hand. However, as with all other imported items, handpulpers have become virtually unobtainable. So, too, have the bags necessary for the transportation of parchment to the primary societies.

39. The physical damage and losses sustained by the cooperative unions handling

¹ It is hazardous to estimate the 1978/79 production but allowing for 20-40% of the crop having been smuggled we estimate that production was between 7,500 and 10,000 tonnes of parchment (i.e. 6,000 to 8,000 tonnes green bean equivalent).

arabica coffee, including those in Western Region, are summarised in Table 4.5 below. War damage was particularly severe in the Mbarara area, with the result that the functioning of the major coffee cooperative in the Western Region - the Banyankole Kweterana Growers Cooperative Union - has been completely impaired. This will require major capital assistance on an emergency basis.

Table 4.5

Damage and Losses sustained during
the Liberation War by Arabica Coffee
Cooperative Unions (Shs.m.)

Unions processing Arabica Coffee	Physical Damage	Vehicles Value (No.)	Looting & Theft	Total
A. Bugisu Arabica				
Bugisu C.U.	-	0.5 (2)	1.5	2.0
B. Western Region Arabica				
1. Banjankole Kweterana G C U †	23.5	7.8 (22)	4.7	36.0
2. Kigezi G.C U †	-	0.2* (2)	-	0.2*
3. Nyakatonzi G C U †	-	3.1** (7)	0.2	3.3
	23.5	11.6 (33)	6.4	41.5

Notes : † These Unions also process some robusta coffee; the arabica coffee is dry processed.

* Rough estimate only.

** Book values; replacement costs estimated at Shs.4.2m. including spare parts.

Source : Cooperative Union submissions to the team; all these Unions were visited and visually inspected by the team, but the detailed estimates have not been verified.

THE TASK AHEAD

40. The rehabilitation of the arabica coffee industry depends fundamentally on changing the present pricing structure to bring it more into line with world price levels. We have discussed this in Paper 3. The production of arabica coffee will also be increased by improving the availability of the various inputs, both chemical and physical, which have for long been in short supply. If the level of general crop maintenance is to be raised it will also be necessary to increase extension services to the farmers. This will require the establishment of spray-teams and the provision of suitable transport for them. And it will be necessary to improve the transport facilities provided by the Unions.

41. The Bugisu Union has a particular problem of financial solvency. Only when the delivery of the crop to the Union's coffee mill can be assured will the Union have sufficient throughput to run profitably. It could probably trade itself out of its present parlous financial state provided that its bankers are prepared to advance it adequate crop finance. The factory itself is in need of repair and maintenance and farmers long deprived of an adequate supply of tools and chemical inputs will require considerable quantities of these in the rehabilitation project (see following section).

POLICIES and RESOURCES REQUIRED

42. In addition to the emergency aid required to restore the cooperative unions to an adequate level of operational effectiveness, three projects for the rehabilitation of

arabica coffee production in the field have been identified by the Ministry of Agriculture. If effectively implemented, the probability seems high that they will provide a high rate of return, especially through their capacity for raising foreign exchange earnings significantly within the reconstruction period. They should therefore be accorded a very high priority within the overall rehabilitation programme.

43. The three arabica projects are summarised in Table 4.6; further details are available in the submission of the Ministry of Agriculture which is lodged with the Commonwealth Secretariat.

Table 4.6
Proposed Arabica Coffee Projects

Project	Recurrent		Capital	
	1979/80 Total F.E. (Shs.m.)		1980/81 Total F.E. (Shs.m.)	
Rehabilitation of Bugisu arabica production	4.2	4.2	4.2	4.2
	1.1	1.1	-	-
Coffee berry disease control, Western Region	0.5	0.5	0.5	0.5
	0.5	0.5	-	-
Rehabilitation of Western Region Arabica production	1.8	1.8	1.8	1.8
	1.0	1.0	-	-
TOTALS	9.1	9.1	6.5	6.5

Source : Ministry of Agriculture submission, 1979

3. TEA

THE ROOTS OF CURRENT PROBLEMS

Background Information

44. At present there are 20,906 ha. of tea at different stages of development stages of development; about half of this is abandoned but retrievable. The tea is grown by several categories of organisation:

Private Estates. These are owned by individual companies and by some co-operative societies. Some individual estates have been abandoned recently by their former owners and are awaiting re-allocation.

Government Estates. These are managed by:

- Agricultural Enterprises Ltd.
- The Uganda Tea Authority which runs estates on behalf of the Government on a temporary basis.

Small Outgrowers. These are organised under the auspices of the Uganda Tea Growers Corporation. They together form a small-holders tea project which on paper involves around 11,000 growers with a total area of nearly 9,500 ha.

45. The tea industry is run under the overall supervision of the Ministry of Agriculture. There are three parastatal bodies charged with executive functions for the industry:

Agricultural Enterprises Ltd. (AEL). This was established in 1965 as a subsidiary company of the Uganda Development Corporation (UDC), a fully-owned company of the Uganda Government. It comprises six estates and factories which are also registered as separate companies.

Uganda Tea Growers Corporation (UTGC). The UTGC was established in 1966 under an Act of Parliament. It is strictly a service corporation which gives advice to small tea outgrowers and is responsible for transporting their leaf to various factories. UTGC also runs five factories on a temporary basis on behalf of Government.

Uganda Tea Authority (UTA). The UTA was established by decree in 1974 'for the promotion and development of the tea industry in Uganda and to market manufactured tea'. It is the sole exporter of Uganda tea to external markets. In addition to these functions it is currently managing five estates on behalf of the Government on a temporary basis.

46. Seventy % of the small -holders were organised into 29 cooperative societies but most of these have become moribund with the decline of tea production over the last four years 80% of their tea being reported to be abandoned.

47. Up to 31 December 1978, tea research in East Africa was jointly undertaken by the three East African countries. There was a central research centre at Kericho in Kenya and in Uganda there were two sub-stations at Rwebitaba in Toro and Salama in East Mengo. Given the recent date of this arrangement, it may be fairly easy to put this cost-saving pattern of cooperation back together again. Otherwise, the restructuring of tea research is a long-term exercise which is not, in our view, a high priority, and is not discussed further in this report.

Effects of the Liberation War

48. The major effects of the liberation war have been on the industry's transport fleet. Virtually all lorries, tractors and trailers belonging to the industry have been looted during the war by Amin's soldiers or borrowed by the Tanzanian forces. Crop movements and production are therefore at a standstill. Looting has also occurred in certain head offices - equipment, stores, furniture, etc. whilst several parastatal and private estates have had cash, office equipment and furniture stolen.

49. Damage to the electricity grid installations at Mityana and Mbarara has also prevented factory operations restarting in most of the Western Region where the major part of the industry is located.

Effects of the Policies of the Military Regime

50. Due to the low relative producer prices of tea compared with rising costs of labour, consumer goods, farm inputs and transport and, for the small-holder, opportunities for more profitable self-employment of family labour in trading and smuggling activities, over 11,000 ha. out of a total planted area of 21,000 had been abandoned by May 1979.

51. Severe difficulties had been experienced in maintaining production on the remaining tea areas due to exorbitant costs and non-availability of supply in the following areas:

- Fertilisers and insecticides;
- Tea chests, the supply from the Wood Industries Corporation being at a standstill due to lack of components;
- Packing materials, e.g. tea chest liners;
- Gunny bags and nylon bags;
- Spare parts for vehicles and factory machinery;
- Furnace oil.

These problems became particularly severe from 1975.¹

¹ The East African Development Bank drew attention to these problems in its report 'The Uganda Tea Industry' in 1975.

52. On the small-holder side, unreliability of transport collection schedules due to problems with maintaining vehicles and the poor quality of feeder roads due to lack of maintenance led many farmers to abandon their tea on these grounds alone. Transport to collect the green leaf should be provided daily along the feed roads. There are 530 km. of such roads in Western Region which it is the responsibility of the District Administration's roads supervisors to maintain. Lack of spare parts or replacement vehicles and labour shortages has meant, in fact, that the District Administrations have not been able to maintain the roads they were originally charged with, let alone take over the additional feeder roads. In consequence many of the latter are now badly eroded and impassable in wet weather.

53. The shortage of labour was brought about by excessive domestic inflation. Due to the high costs of goods, particularly essential commodities, workers abandoned the estates and went home to produce their own food to feed their families and sell the surplus; in this way they could earn more money than on estates. As a result tea estates are now using one-third of their usual labour requirements.

54. These problems are reflected in a number of ways:

- The cessation of new planting;
- A decline in output following the abandonment of tea;
- A decline in the quality of the tea that was produced;
- The financial quasi-bankruptcy of the key parastatal organisations set up to handle the industry's affairs.

55. The area of planted tea stood at 16,620 ha. in 1970 and through additional small-holder planting had risen to 20,905 ha. by 1975. New planting ceased after that year so that the planned small-holder area was only half completed. This has meant that fewer of the UFGC and the completed factories, and the ensuing unit costs are higher than was originally intended. This problem had become even more severe with the widespread abandonment of small-holder tea.

56. Table 4.7 indicates the decline in output since the expulsion of the Asian community in 1972 - the first stage of the economic war. This decline set in despite the effects of new acreage coming into bearing. It reflects the departure of both management - a number of estates were Asian owned - and the loss of technicians for both the factory and vehicle maintenance aspects of the industry.¹

Table 4.7
Annual Production of Tea: Uganda, 1970-78

Year	Production (kgs)	Production Index (Base 1972)
1970	18,217,240	78
1971	18,004,654	77
1972	23,376,162	100
1973	21,888,230	94
1974	21,687,739	93
1975	18,373,741	79
1976	15,388,166	66
1977	15,179,097	65
1978	10,910,114	47

Source: Uganda Tea Authority

¹ The East African Development Bank also reported a shortage of accountants in the industry due to the departure of Asians : op.cit.

57. With the acute shortage of wage labour from 1975 to the present time, leaf is not picked at the required time which is normally every seven days. Plucking rounds have now risen to 21 days. With long plucking rounds, the leaf picked is usually long, coarse and hard, characteristics which are very undesirable for making good quality tea. Tea manufactured from such leaf consequently fetches very low prices both in the local and the world market. Table 4.8 presents annual average prices realised in the Mombasa auction for Ugandan, Kenyan, and Tanzanian teas in 1977. Tanzanian sales figures for 1978 are not available for comparison. Formerly Ugandan teas sold at prices much closer to the Kenyan teas.

Table 4.8

Average Prices received in the Mombasa Auctions:
Kenya, Tanzania and Uganda Teas: 1977/78
(Shs./kg made tea)

	1977	1978
Kenya	19.59	13.44
Tanzania	13.01	n.a.
Uganda	11.72	7.27

Source: Uganda Tea Authority

58. At the current international value of the domestic currency, Uganda's tea industry as it stands today cannot support itself financially unless money is given to subsidise prices or in the form of production grants. Statistics showing the price realised as against the estimated costs of production¹ for the past five years are shown in Table 4.9 below:

Table 4.9

Average Realisation and Costs of Production,
Uganda Tea, 1974-78 (Shs./kg. made tea)¹

	1974	1975	1976	1977	1978
Realisation	6.57	7.12	9.08	14.30	7.36
Cost of Production	5.29	7.78	10.77	11.77	14.40

Note: ¹ The details of the calculation of these costs of production have not been examined by the Team

Source: Uganda Tea Authority

59. The UTGC reported that in 1978 the Government, in order to maintain the green leaf price of Shs. 1.55 per kg. had to provide a subsidy of Shs. 15m. whereas small-holders had costs of production of around Shs. 2 per kg. of green leaf (this presumably includes an imputed charge for family labour).

60. The small-holder has also suffered, as was mentioned earlier, by the freeze on further expansion in his sector. Phase II of the small-holder project, which was to have been carried out with IDA funds in the period 1973-77, was suspended in its first year of operation.

61. The overall cost of this multitude of problems may be gauged by comparing the value of actual export sales in 1978 with an estimate of the minimum 'normal circumstances' revenue - 1972's peak production valued at 90% of Kenya's average values. Instead of Shs.79.5m., sales earnings of Shs.282.6m. could have been obtained i.e. over 3½ time more,

or an extra Shs. 202.3m., nearly all in foreign exchange.

62. Finally, the organisational structure of the industry has caused problems of conflicting priorities, duplications and set-backs for the small producer. Until 1974, estates and the UTGC on behalf of outgrowers were able to sell their tea directly through the Nairobi auctions. This had the particular advantage of bringing quality differentials directly to the notice of managers and growers. With the institution of the UTA, however, this direct link was broken and an additional hierarchical level interposed in both the product market and the purchasing of inputs. Further, the UTA has been given direct managerial responsibility for five 'allocated estates' i.e. foreign or Asian-owned estates which were nationalised in 1972/73. This, it was represented to us on several occasions, has led to a conflict of interest between UTA's responsibility to the industry as a whole and other pressing needs, e.g. for inputs for its own estates. Also, various complaints about delayed payments for tea sold by UTA have been made which point to UTA's own cash flow problems as the primary cause. The effects of delayed payments are particularly severe for the small-holder, and were said to be a material factor in their losing their workers and in the widespread abandoning of tea in the small-holder sector. We make proposals about the broad nature of reforms which appear necessary for efficient operation of the industry in the latter part of this paper.

THE TASK AHEAD

63. The objective during the reconstruction period must be to restore the capital assets represented by the whole planted tea area to the most socially efficient level of operation and to raise the quality of production to a similar level. All the abandoned tea is technically retrievable and can be brought back into full bearing in a period of between four and six months, given the right management and fertiliser applications. The benefits for the national economy in terms of foreign exchange are certainly significant and worth having, whilst further benefits will be obtained in the local rural economies from the multiplier effects of tea incomes and wages. The rehabilitation of the tea industry is recommended, therefore, as a matter of very high priority.

64. This will require both a set of appropriate policies and a large aid programme consisting of several distinct projects. The policy framework is vital - without proper attention to this area the probability is high that, however large, the material inputs and technical expertise will be ineffective and wasteful.

POLICIES AND RESOURCES REQUIRED

Policies

(a) Prices:

65. The small-holder sector, which accounts for nearly half the area of planted tea, consists of 11,000 growers who once had high expectations that tea would provide a major, or even the only, source of their cash incomes. Currently, 80% of their 9,500 ha. is reported abandoned. The green leaf price is currently Shs. 1.35 per kg., having stood at that level for the last three years. Even to maintain that price on the reduced area, the Uganda Government has had to provide subsidies amounting to Shs. 15m. in 1978. An analysis of comparative enterprise profitability in the small-holder sector (see Paper 3) indicates that it is necessary to raise the green leaf price by at least one third i.e. to Shs. 2.00 per kg., if grower interest is to be adequately rekindled in the crop.

66. On the estate side, it is clear that many estates have been facing profitability problems; over one-third of the planted area is reported abandoned. Although real labour wage rates are expected to decline as the economy returns to normal - and the key question here is how rapidly will they do so - the estates will face over the next two years massive outlays on the deferred maintenance of capital plant and virtually 100% replacement of their lorry and tractor fleets due to the events of the liberation war. They will be neither able nor inclined to do this without the prospect of significantly increased earnings which an immediate increase in tea prices will secure.

67. As was indicated in the agricultural pricing section, one administratively simple way of restoring the profitability of the tea industry is through the external devaluation of the domestic currency. Another feasible alternative is to continue, and indeed significantly increase, the level of direct subsidies provided by Government to the industry or segments within it. This is not desirable, in our view, as the profitability of tea is then dependent on the vagaries of the political process. The industry, or sections or individuals within it, will seek to cultivate a patron-client relationship to obtain sectoral or individual advantages. This can only lead to further distortions in the allocation of resources and/or the distribution of income which are undesirable from the viewpoint of national society as a whole.

(b) Institutional Arrangements for the Tea Industry

68. In our view, it is essential to restore direct access to the market for individual estates and by UTGC on behalf of small-holders. This is desirable on grounds both of efficiency with respect to achievement of high quality levels of made tea, and equity in terms of prompt payment to low-income small-holders. This objective requires restructuring the major organisations in the industry.

69. The details of such a reorganisation will need to be determined as rapidly as possible by a committee of officials and representatives of the industry which should report to the Minister of Agriculture. However, the broad lines of the required reorganisation which in our view would provide a secure basis for the physical and financial reconstruction of the industry is outlined in the succeeding paragraphs.

70. The UTA should be reconstituted as soon as possible as the Tea Board of Uganda, with a strictly limited role in the areas of financing research and publicity on behalf of the industry, assembling market intelligence, collecting statistics and advising the Minister of Agriculture with respect to matters concerning the industry.¹ The ownership and management of tea estates should be divested to AEL, or to the previous owners in accordance with specific government policy with respect to these matters. The members of the Board should be drawn from both the official and private sides of the industry, but with a preponderance of members engaged in the business of tea production i.e. estate owners and small growers. The staff of the new Board should be limited to that strictly necessary to carry out its new duties, and other staff should be transferred as far as possible to other posts within the tea industry or the Ministry of Agriculture.

71. UTGC should also divest itself of its responsibilities for estate management in ways similar to those recommended for UTA. It may also strengthen growers' confidence if in the course of restructuring the Corporation its name were changed and any savings in staff and other costs were agreed on simultaneously.

72. Some 7,600 out of the 11,000 small-holders were formerly organised into 29 cooperative societies, only 16 of which were formally registered as such. With the wholesale abandonment of tea, most of these societies are reported to be moribund. It was intended, however, that the ownership of the UTGC factories be vested in the cooperative societies. Indeed, a contribution is deducted from each grower's green leaf revenue towards paying off the capital cost of the factory, whether existing or prospective, which processes his tea. Doubt must be cast, however, on (i) the enthusiasm of the growers for reforming cooperatives, and (ii) the wisdom of forcing these additional ownership costs on growers at this early and untested (and as events turned out, financially disastrous) stage in the establishment of this particular mode of production.

73. It is recommended that two alternative arrangements be examined alongside the present ones:

- Where growers do not wish to revitalise their cooperative society or to form one at all, ownership of the tea factory be secured by the voluntary

¹The Board would also collaborate with the Central Bank in surveillance measures against transfer pricing or any other undesirable financial practices in the industry.

share subscription method, as is practised for example in the similar case of the Kenya Tea Development Authority's factories. This procedure would have the benefit of loading the capital costs upon those growers able and willing to bear them. A maximum number of shares, however, should be prescribed for ownership by any one individual or family so as to prevent outright individual ownership of the factory. Consideration could also be given to the introduction of mixed cooperative/private systems of ownership, e.g. with the cooperative society retaining control of 51% of the shares.

- Secondly, an option could be provided for the deferment of the capital changes, instituting a system of leasing a state - owned factory. The rental for the lease would be equivalent to the interest on the capital investment. The advantage of this system is that the rentability of the asset becomes the clear financial responsibility of the state which would be penalised for neglecting to maintain a viable environment for the industry. This arrangement is preferable to the recent circumstances where all the direct costs have been transferred onto the grower. Growers in each area should be permitted to choose, on a democratic basis, whichever system they prefer after a clear explanation of the financial and management implications of each arrangement.

74. Estates in the private sector should be enjoined to seek the advice of experienced consultants to review the operating efficiency of their factories and plantations. Ugandan or international banks should be encouraged to finance this operation on a medium-term development loan basis.

75. In the event a failure on the part of owners of planted tea, whether large or small, to rehabilitate their tea within a reasonable time from the commencement of the tea rehabilitation programme, say two years, enabling legislation should be invoked, or introduced as necessary, to permit the compulsory acquisition of the tea area and any associated processing, storage and other buildings for sale at public auction. The proceeds would be paid to the owner(s) less a small commission charge covering the expenses involved in the valuation and sale of the asset.

76. The overall objectives of these suggested reforms is to integrate producers of all sizes more directly into the international market, where the crucial signals for quality are displayed, and in so doing to improve both the producers' control over the general direction taken by the industry and their supervision of the services provided to the industry. The dominance of producer interests in the oversight of export crop production where the country's elasticity of demand is high, as is the case with Uganda tea, is more likely to maximise the benefits obtained for the national economy than a system of extensive state control. In our view, the events since 1974 clearly support this thesis.

Resources Required

77. It is proposed that a major Tea Rehabilitation Programme be introduced, to be financed largely by foreign aid. The programme falls into a number of discrete projects, so that either one donor could assume responsibility for all aspects of the industry, or a group of donors could cooperatively agree to fund the range of component projects between them. The physical and financial details are summarised in Annex 4.1 whilst supporting detailed submissions from the parastatal bodies and some cooperative societies have been lodged with the Commonwealth Secretariat.

78. Some elaboration is required on some of these items. These can be conveniently discussed under the headings small-holder production, parastatal estates and private estate production.

(a) Small-holder Production

In addition to the transport, production inputs and factory equipment requested by the UTGC, which are shown in Annex 4.1 a crucial component is the completion of three new factories which are financed under a loan from the African Development Bank (ADB).

The project comprises:

- Three new tea factories, including staff houses and labour lines, in Buhweju (Ankole), near Kyenjojo (Toro) and near Mityana (Mubende);
- Green leaf collection centres feeding the factories above;
- 25 km. of third class gravel access roads to the Buhweju tea factory;
- Leaf collection service vehicles;
- Equipment for a road maintenance unit.

79. The cost of these items as estimated by the ADB in 1975 and negotiated by the Government of Uganda (GU) in 1976, was Shs. 66.256m. GU and ADB are jointly financing this project as follows:

ADB Shs. 48.348m., all in foreign exchange;

GU Shs. 17.908m., all in local currency.

The details are set out in the submission of the UTGC.

80. Article LV 6.01 of the Loan Agreement between the two parties (signed on the 14 March, 1977) stipulates that 'The borrower (Government) has undertaken to meet any cost over-runs, both foreign exchange and local, in excess of the present estimates of the Project'. This presents a problem which must be resolved if the factories are to be completed, as costs over-runs inevitable will be encountered.

81. The Ministry of Works, Transport and Communications is responsible for the implementation of the third and fourth, and the UTGC for the rest of the items listed above. To date, only the work on the factories and 10 kms. of road has been started. Implementation of the other items is currently awaiting recommencement of work by the builders whose vehicles were stolen during the recent war.

82. Another major element in the small-holder sector is the restoration of the deferred second phase which was to have been funded by the World Bank in association with the Commonwealth Development Corporation. In general, we feel that further expansion is desirable, although it may be viewed as being a matter of lower priority than other components of the tea programme during the two year reconstruction period. However, the information concerning the interest of the previous donors in this project - and sources of alternative support if necessary - should inform the decisions of the review committee before long-term decisions are taken about the scale of operations (and the associated manpower resources) for which UTGC is to be responsible.

83. Whatever the decision on Phase II, the question of rescheduling UTGC's debt repayments should be discussed with the donor creditors to arrive at a more realistic relationship between the small-holder sector's ability to pay and the payments schedule. This would hopefully include writing down some part of the accumulated interest charges.

84. The UTGC has requested technical assistance in the form of one engineer and three teamakers. These needs should be reassessed as quickly as possible after the reorganisation of the tea industry which has been recommended in the previous section.

(b) Parastatal Estates

85. The UTA has been exploring the financial implications of investing in a caffeine extraction plant. At a capital cost of Shs. 9.5m. for a 20 tonne a day plant, some 200 tonne of caffeine a year could be produced. This can process material produced from pruning and skiffing the currently abandoned areas of tea. But if all tea is brought back into production by the end of that period, the future supply of prunings appears problematic. If a private firm views the situation more optimistically, we recommend that they be given an allocation of foreign exchange for this supplementary project.

86. The UTA has also requested technical assistance, in the form of two experienced accountants and one factory engineer. These needs should be reassessed once the role of

the new Board has been defined.

(c) Private Estates

87. Although new capital investment on private estates would qualify for capital investment allowances against company tax, this is unlikely to overcome the cashflow problems of many estates. Consequently, the rate of reconstruction of their factories and planted areas is unlikely to be as rapid as would be desired when considering the value to the national economy of their potential foreign exchange earnings. We recommend that private estates have access to foreign aid capital on the same grant or loan terms as the parastatal estates.

4. COTTON

ROOTS OF CURRENT PROBLEMS

88. Cotton has, since the mid-1950s been Uganda's second most important export crop. It is however, more widely grown than coffee; the UNDP/FAO Programming Mission estimated that it was grown on approximately 60% of all holdings in Uganda. Production is entirely small-holders cultivating, in the main, areas of from one third to one acre. In 1973 it was estimated that over 2½ m. farmers owed their livelihood to the crop.

89. Between 1970/71 and 1976/77 production fell from 412,700 to 74,422 bales (of 185 kgs. each). The Lint Marketing Board (LMB), which has monopoly marketing rights over all lint and cotton seed produced in Uganda, has estimated that production will be 108,000 and 60,000 bales respectively for the 1977/78 and 1978/79 seasons. It seems probable, however, that in each case these estimates are over-optimistic. Certainly the statistics on which such estimates are based are unreliable.

90. The principal reason for what amounts to a massive abandonment of the crop was the low return that growers received for it. This was compounded by the increasing inability of primary societies to pay cash on delivery which resulted in some growers having to wait for up to 12 months for payment. In 1970/71 the price paid for raw cotton was Shs. 1.25 per kg. In 1972/73 this was raised to Shs. 1.30 and in the next two years to Shs. 1.65 and Shs. 1.90. In 1977/78 the price was Shs. 3 and for 1978/79 Shs. 5. These price rises were, however, proportionately not comparable to those of the farmers' basic necessities or of food sold on the 'free' market. Because of this many farmers abandoned the crop in favour of food crops, especially groundnuts and sim-sim. Not all growers made that transfer, however; some reduced their total area under crops.

91. In addition to the disincentive of low prices, cotton growers were faced with increasing difficulties in the planting and cultivation of the crop. For best results the seed should be planted in April or May and planting after July is often of little value. The timely availability of dressed seeds is therefore of prime importance but, as transport facilities progressively deteriorated after 1972, farmers were unable to obtain seed early in the season. The effects of liberation and its immediate consequences exacerbated this problem and in some cases, such as Lango and Acholi, no dressed seed has yet been distributed for the 1979/80 crop.

92. Farmers were also confronted with the non-availability of essential inputs. Hoes became almost unprocurable except at magendo prices outside the reach of small producers. In the northern districts where ox-ploughs are used they, too, were in short supply. Formerly, suitable areas of cotton land were opened up by tractor but the tractor hire service virtually ceased operations. Some privately owned tractors were available for hire but the cost was far in excess of that payable by most growers.

93. Chemical inputs, both fertilisers and insecticides, also became unobtainable. The shortage of basic necessities, even those derived from cotton and its by-products - soap and textiles, gave farmers very little incentive to grow the crop except when, because of their favourable geographical location, they were able to smuggle it into Kenya. There the price paid for cotton during 1978 was K.Shs. 3.45 compared to U.Shs.5. However, the purchasing power, in terms of consumer goods, was estimated by farmers to be equivalent to at least U.Shs. 30.

94. All ginneries in Uganda are currently under the control of growers' cooperatives. Their present installed capacity has been estimated by Uganda Cooperative Central Union to be 350,000 bales of lint per four months season, but this, like the LMB's estimate of the current crop is likely to be a gross exaggeration. Indeed, current capacity may only be one-third of this. Certainly the Union's claim that the rehabilitation project 'in progress' would be completed this year is clearly incorrect. Construction of the most advanced of the new ginneries, at Tororo, commenced at the beginning of 1978 but no work has been done there since September of that year. At least six months more work is involved, given the necessary supplies, but it lacks 400 tonne of steel. Construction of the other three mills has not yet begun, even though the bulk of the machinery was delivered early in 1978. Eleven other ginneries are under 'rehabilitation and modernisation'. All the machinery and equipment for these have been bought and are reported to be either on site, or en route from Mombasa but construction at all sites is hampered by lack of cement and reinforcing steel.

95. All ginneries have been badly hampered by inadequate plant maintenance due to lack of essential spare parts and basic tools. Labour has also often been in short supply because in most areas labourers were not prepared to work for the minimum wage of Shs. 240 per month.

96. Ginning was often further hindered by the lack of hessian for baling the lint and the consequent inability to store the sheer volume of ginned cotton. As a result of such delays the period of operation of the ginnery has often been prolonged so that even reduced throughputs take many months longer than would be expected. Such ginneries, and those which have been unable to dispose of their ginned lint because of a lack of transport, frequently were unable to accept further supplies of cotton from primary societies because of their lack of storage. At other times, a lack of transportation prevented unions from being able to bring raw cotton to the ginnery. In either case this has resulted in primary societies eventually being unable to accept cotton from farmers. If the cash value of the cotton able to be stored by the primary societies exceeded that which could be bought with the crop purchase advances from the unions, they were tempted to accept farmers' deliveries 'on credit', leading to long delays in paying for the cotton.

97. The reduced rate of throughput of the ginneries, together with the reduced cotton crop, led to marked increases in the per kg. costs of ginning but there was little increase in the margin payable to ginneries. Thus one ginnery estimated, on a throughput of 1,232 bales in 1977/78, that their costs associated with ginning one bale of cotton were Shs. 4,244 as against an average return of Shs. 3,674 (i.e. a loss of Shs. 570 per bale). As a result all ginneries in recent years have been operating at a loss, greatly increasing their shortfalls so that at the end of 1978 the cotton unions owed the banks in excess of Shs. 200m.

98. After being separated from the lint, the cotton seed, like the lint, becomes the property of the LMD. Seed necessary for planting is sent to a dressing station at which it is chemically treated and then it is distributed to farmers by the Ministry of Agriculture. All the other seed is milled at LMB-owned mills, producing cotton-seed oil and cotton-seed cake. Both these procedures require that the seed is transported in 'gunny'bags. In many cases these became unobtainable and the seed was stored loose for considerable periods before being transferred from the ginnery.

99. The effects of the liberation war were, in every case, to exacerbate the existing problems of the ginneries. Almost all their usable vehicles were taken either by Amin's or the Tanzanian troops and then their buildings were looted by the neighbouring citizens. In several cases the ginneries were completely destroyed, others had their gunny bags stolen - often this entailed emptying their contents over the ground. Baled lint was in several cases taken and in one case sold by troops for mattress stuffing. As a result some unions now face considerable losses because the LMB has refused to pay for the lint so lost even though it was their property. We estimate that total losses incurred by ginneries due to the war may well be in excess of Shs. 75m.

100. The loss of vehicles has further exacerbated the transport problem so that several ginneries have excessively large holdings of baled lint. In some cases it is subject to deterioration under the effects of the weather. This situation has been made worse in the Gulu-Lira area. No trains have been through or beyond there since March.

THE TASK AHEAD

101. Unlike the case with coffee, the producer prices paid for cotton at current official rates of exchange would seem to leave no margin for increases unless some form of subsidy is paid. Indeed, even now a subsidy is paid to farmers by both the LMB and the ginneries. The latter are running at a loss though in no position to do so, whilst the former is a direct charge on the Government budget. The rehabilitation of the industry will require an adjustment in relative prices. Possibly even more immediately, it is essential that the cotton cooperatives are financially rehabilitated. Because of the policies of Amin's government they were required to buy at unrealistic prices. As a result they are in arrears on their crop accounts by some Shs. 200m. In a normal production year they also require a like amount for cash crop advances. Their physical reconstruction also requires the expenditure of large sums as war damage must be repaid and machinery modernised.

POLICIES AND RESOURCES REQUIRED

102. The ginnery rehabilitation programme started in 1978 has been static for the past year and a half but when completed it will enable a crop of 450,000 bales to be handled comfortably or 600,000 bales over a full year of ginning. Almost all the ginning equipment has been bought and much of it is already on site or en route from Mombasa. The project is being held up by the urgent need for 2,000 tonnes of cement and probably 500 tonnes of mild steel which is required within the 1979/80 financial year. In addition to this the re-equipping of existing ginneries will require, according to LMB estimates, Shs. 40m. for essential spares and bagging and bailing equipment and a further Shs. 8.5m. for scales and other equipment.

103. Less than three-quarters of the area planted to cotton in 1978 has been set aside for cotton this year. Thus it is likely that the crop will total some 40,000 bales. It is, however, reasonable to expect 150,000 and 400,000 bales in the 1980/81 and 1981/82 seasons. To achieve these levels of production will, however, require the provision of considerable inputs.

104. First it is essential that agricultural extension in the cotton growing areas be re-activated. There is an adequate supply of staff at a supervisory level but they require transport, equipment and chemical inputs. Further it is essential that a special task-force be established to spray cotton. Over the next two years the costs of such an extension campaign are estimated as follows:

Table 4.10
Costs of Agricultural Extension for Cotton Production

	1979/80		1980/81	
	Total	F.E	Total	F.E
Trucks and landrovers	1.9	1.9	0.8	0.8
Motorcycles and bicycles	0.9	1.9	0.2	0.2
Demonstration sets	0.4	0.4	-	-
Spray pumps	0.3	0.3	0.1	0.1
TOTAL	3.5	3.5	1.1	1.1

105. Costs associated with the actual planting, spraying and ginning of the cotton crop are estimated as follows:

Table 4.11
Costs of Cotton Crop Production by Small-Scale Farmers

	1979/80		1980/81	
	Total	Shs. m. F.E	Total	Shs. m. F.E
DDT	6.0	6.0	16.0	16.0
Ginnery spares, etc.	15.0	13.0	15.0	13.0
Baling materials	5.4	5.0	24.0	22.0
Superphosphate	2.0	0.5	3.0	1.3
TOTAL	28.4	24.5	58.0	52.3

Note: These estimates do not include the costs of ginnery lorries which are included in a consolidated estimate for the cooperative movement's transport requirements in Paper 18.

5. OTHER EXPORT CROPS

106. Two projects producing cashew and cocoa have been drawn to our attention. We support them both. The first involves the construction of a factory to process raw cashew nuts and the other the improvement of field practices and the fermenting of cocoa.

107. Cashews are planted only on small scale farms in the Eastern and Northern Regions. As yet they have not been produced in commercial quantities. The programme has been assisted by UNDP/FAO. The new proposal requires expenditure over two years of Shs. 1.9m. The project would also require an FAO consultant for a short period to evaluate progress to date and the provision of two training fellowships.

108. Cocoa production was 290 tonnes in 1978 and it is expected to reach 600 tonnes by 1980. Growers at present receive Shs. 3.20 per kg. wet beans or Shs. 0.40 per kg. of pods. The export price of dry cocoa beans have averaged £1,200 per tonne at Mombasa. This gives a marketing margin of approximately Shs. 12 per kg. dry cocoa beans compared with the equivalent grower price of Shs. 6, i.e. a margin of 67%. This is excessive and must be reduced if the crop is to expand to its potential level.

109. The proposed programme would require the expenditure of Shs. 2.1m. in 1979/80 and Shs. 4.2m. in 1980/81. Approximately two thirds in each year requires foreign exchange. It is proposed that some technical assistance and several short-term fellowships be provided.

110. A project has also been initiated for the irrigation of citrus at Ondina. This would involve the expenditure of Shs. 1.3m. in 1979/80 and Shs. 2.6m. in 1980/81. Most of this is required for the provision of necessary transport facilities, the repair of irrigation pumps and other equipment.

Estimated Input Costs For The Proposed Tea Industry
Reconstruction Programme

1. 1979/80 and 1980/81 Input Requirements

(a) Packing Materials	No.	Unit Cost (Shs.)	Total Cost (Shs.)	FE %
Tea chests	240,000	66.7	16.0	100
Gunny bags	200,000	16.5	3.2	80
Polythene liners	200,000	9.0	1.8	100
<u>(b) Transport¹</u>				
Leaf collection tractor-trailer sets (say M.F.165s)	150	120,000	18.0	10
Lorries for made tea delivery to KLA - (say 10 tonners)	40	160,000	6.7	100
Management vehicles (pick-ups LRS)	60	75,000	4.5	100
Buses (UTGC)	2	200,000	0.4	100
Motor cycles (UTGC)	40	4,000	0.2	100
Water bowsers (UTGC)	10	200,000	2.0	100
Bicycles (UTGC)	250	700	0.2	100
<u>(c) Production Inputs (recurrent)</u>				
Fertiliser: Compound (tonne)	n a	1,500)		
Herbicides: Gramoxone (litre	n a	60)	10.0 ²	100
Dalapon (kg.)	n a	30)		
<u>(d) Other Production Inputs (Capital)</u>				
Potash	n a	n a	1.5	100
Knives, bags, pumps etc.	n a	n a	2.5	100
<u>(e) Factory Spares and other Replacements</u>				
UTA (33 factories) (no details given)			(77.0)	(100)
UTGC (11 factories) (full details supplied)			(65.0)	(100)
Estimated requirement			100.0	100
<u>(f) Tea Factories/Small-holder Tea Project³</u>				
<u>(completion) (ADB/UTGC)</u>				
3 factories)				
25 km. tea roads)				
vehicles & road maintenance)			66.3	73
unit)				
New godown at Kasese			5.4	30

¹This is not covered in the cooperative movement's transport requirements.

²Shs. 4m. for estate acreage (10.5m ha.) as requested by UTA:
Shs. 6m. (out of Shs. 8.575m. requested by UTGC) for the small-holder sector (9.5m ha).

³Costed at 1975/76 prices; 25% of the project has been completed but the full original estimate has been entered to allow for inflationary effects on the remaining work.

ANNEX 4.1
(Cont.)

(g) <u>Production Credit</u>	No.	Unit Cost (Shs.)	Total Cost (Shs.)	FE %
Small-holders rehabilitation of abandoned tea (UTGC)			(10.0)	0
(h) <u>Office, etc. Equipment</u>				
Urgent office equipment			1.0	100
Weighing scales (UTGC) (details supplied)			0.5	100

2. Summary:

Capital Items:	1979/80	(b), (d), (e) (f), (g), (h):	Shs. 118.2m.
	1980/81	(b), (e) :	Shs. 101.7m.
Recurrent Items:	1979/80	(a), (c) :	Shs. 31.1m.
	1980/81	(a), (c) :	Shs. 31.1m.

Note: The capital items are phased over the two years of the reconstruction programme with the exception of items (d), (g) and (h).