GM.001
11.90

PRIVATISATION STUDY OF THE GAMBIA PRODUCE MARKETING BOARD

DRAFT REPORT

Submitted by:

Cargill Technical Services
13 Upper High Street,
Thame,
Oxon,
OX9 3HL,
England.

CONTENTS

CONTENTS (CONT)

1.0 INTRODUCTION

The following report has been compiled as the result of the findings of a team of consultants engaged on a study to assess specific aspects of the process of privatising The Gambia Produce Marketing Board (GPMB). Much work has already been carried out on the issue of privatisation and reports such as the US AID funded "Privatisation of The Gambia Produce Marketing Board" completed in February 1989 already highlight the problems and make pertinant recommendations on future policy towards GPMB privatisation.

This report is not designed to update the work already completed but more to highlight present issues that require action to enable the continued success towards privatisation of GPMB and liberalisation of the groundnut sub-sector within The Gambia. The report is limited to GPMB's core activities in groundnut purchasing, processing and marketing and focuses on two broad areas:

a) An assessment of the requirements for 1990/91. This includes information on processing technology, processing costs, guidelines for access for private users to use GPMB facilities, and an assessment of The Gambia River Transport Company.

b) Recommendations for the eventual Privatisation of The Gambia Produce Marketing Board's core groundnut activities.

1.1 PROJECT BACKGROUND

In July 1986 US AID and The Government of The Gambia reached agreement on a PL 480 Title II Section 206 food aid programme. The US$ 6 million, 3 year programme, scheduled to be completed in 1989, provides for donations of 7,000 tonnes of rice annually to help cover The Gambia's food deficit.

This study is intended to assist the Government of The Gambia, as part of the US AID program, to further develop the liberalisation of the groundnut sub-sector and the privatisation of GPMB core groundnut activities.

1.2 SCOPE OF WORK

The original scope of work for the study is given in Appendix 1 and the broad basis of this report is formulated on the statement of work given. Discussions with both NIB and US AID - Banjul highlighted key areas that would need addressing, leading to the formulation of the practically oriented report that follows.

1.3 PLAN AND SCHEDULE FOR THE PRIVATISATION OF GPMB

The Government of The Gambia has put in place a policy for the liberalisation of the groundnut sub-sector and the privatisation of GPMB.

To date, significant steps have been taken towards liberalising groundnut trading and promoting privatisation in the industry. The lifting of export tax on groundnuts in the 1989/90 trade season, the liberalisation of the purchase and sales of groundnuts and groundnut products approved in February 1990 and the divestment of GPMB assets are a few measures already in place.

A plan and schedule for the privatisation of GPMB was proposed and accepted by the Government Of The Gambia in April 1990. The plan and schedule are briefly as follows:

- For the 1990/91 groundnut season the GPMB will own and operate all groundnut processing facilities presently under its control. GPMB will be required to process privately owned groundnuts if requested, providing they are of a certain minimum quantity. GPMB will charge a per-ton rate for both decortication and oil milling, this rate to be determined by the National Investment Board.

- In the 1990/91 season any party will be able to export groundnuts or groundnut products.

- Private traders will be encouraged to establish their own decorticating facilities. It is expected that such facilities will be small and will not become an important issue until 1991/92 season.

- Prior to the 1991/92 season the groundnut processing facilities of the GPMB will be offered for sale and GPMB should be fully privatised by the beginning of the 1992/93 season.

1.4 GAMBIA PRODUCE MARKETING BOARD AND THE PRIVATE SECTOR

1.4.1 GPMB

The 1989/90 season was a season of moderate success for GPMB with a forecasted profit for the end of the financial year of Dalasi 2.6 million (after interest and depreciation). Also GPMB has dispersed Dalasi 16.6 million to pay off its overdraft at The Gambian Commercial Development Bank and starts the 1990/91 season with no debt burden. Much of the reason for this success can be attributed to two key areas, firstly the control brought about by the Performance Contract signed in October 1987 between GPMB and the GOTG and secondly the favourable world price of groundnut products last season.

GPMB has to date tried to satisfy all the conditions laid down in the Performance Contract even with the considerable constraints faced with the inefficiency of its processing operations. It is of little importance here to assess GPMB's progress in relation to the specifics of the Performance Contract for 1989/90 as the report concentrates on providing solutions to the immediate requirements for the liberalisation of the groundnut sub-sector and recommendations for the eventual privatisation of the Board. Neither should any contractual relationship regarding performance between GPMB and the GOTG be important for the future as GPMB strives to operate as a commercial entity this season. It is important that GPMB should be judged by its own efforts and apart from GOTG mobilising funds for purchasing groundnuts no other assistance should be given. Operating GPMB as a commercial entity will have one very valuable result, it will open the way for a realistic and commercial assessment of GPMB's assets. Such assets could entail management capabilities, manpower skills and technical parameters.

The improved world prices for Fair average quality (FAQ) decorticated groundnuts and groundnut oil helped increase the per ton margin GPMB received in 1989/90. However, profit in 1989/90 was still low as the inefficiencies of the processing operations, massive overheads, poor transport infrastructure and management indecision limited profit levels. Such are the inefficiencies of the processing facilities that GPMB was as of 16 November 1990, still processing last years crop at least 3 months behind schedule. GPMB will have considerable difficulty operating commercially this coming season given the lack of investment in the processing facilities in recent times (see section 2.4).

The initial impression is that GPMB are not at this stage prepared for the coming season and nor indeed do there seem to be any firm plans as to what needs to be done in preparation. As of 16 November there was little intention to announce either a depot price or processing fee for decortication and/or oil milling and little was known by GPMB of some of the problems identified by the consultants. Given the prospective low crop purchases this season it is fairly certain GPMB will not procure enough groundnuts to make their operations profitable given their massive overhead costs and inefficiencies. It is therefore important that they do everything within their limits to ensure utilisation of excess processing capacity by private traders to contribute towards their overall viability.

1.4.2 Private Sector Involvement

The GOTG's trade, investment and marketing policies are characterised by an emphasis on free trade, openness towards foreign capital, competition and the privatisation of parastatal organisations. The GOTG has gone well down the road to encouraging the involvement of the private sector in many sectors of the economy.

This is certainly the case in the groundnut sub-sector where liberalisation of marketing and exports amongst other measures have encouraged private sector traders to begin groundnut marketing operations. It is not known exactly how many private traders are already involved in groundnut trading or are planning to participate for the first time in 1990/91, but notable participants include The Gambia Co-operative Union, the newly registered Gambia Agro-Products Marketing Company (a consortium of smaller traders) and The Gambia Agricultural Marketing Board.

It is very apparent how involved the private sector have become, with GCU trying to consolidate and strengthen its position and smaller traders forming into larger more powerful and economic consortia. The private sector involvement with the groundnut producer includes the provision of inputs on credit, extension and marketing, all achieved by having a wide net of purchasers/-agents in key parts of The Gambia. The commitment already made and money spent by private traders doubles their determination to survive this coming season at all costs. The very small expected crop size in The Gambia this season of some 85,000-90,000 MT lays down the challenge to all involved. If 45,000 MT are available for purchase (this is an optimistic estimate given that an estimated 10,000 MT will be consumed by farmers or kept for seed and around 35,000-40,000 MT will be sold into Senegal) there is liable to be intense competition to purchase, with producer prices well above last years levels. Only the fittest will survive. Undoubtedly the participation of the private sector in crop purchasing will enhance the benefits accruing to groundnut producers through increased purchasing prices.

Whilst the spirit of competition in groundnut purchasing thrives in anticipation of the start of the 1990/91 season participation of the private traders in processing groundnuts in The Gambia is negligible.

GPMB holds the major processing facilities although some private sector participants have brought small hand decortificators into the country. The use of GPMB facilities is regarded by the private sector as the greatest barrier to a successful season in 1990/91, a season in which Gambia could enhance its reputation on the world market. The lack of confidence and trust, displayed by private traders, of GPMB's management and facilities carries with it some far reaching consequences. In particular if the private sector are forced through some means, such as high processing costs charged by GPMB, to by-pass GPMB for processing then undecorticated groundnuts could be sold to Senegalese traders. This effectively would reduce the value-added earning potential of the country and lose valuable foreign currency, but private traders and farmers would lose little benefit.

The underlying feeling in the private sector is that GPMB must be realistic in price and fair in the processing of groundnuts otherwise they must be avoided. To meet this demand there is an insistence by all private traders that some means of impartial control is installed within GPMB to ensure processing is carried out fairly and to optimal capabilities. Without this control it is a real possibility that private traders would consider by-passing the GPMB operations.

2.0 PRESENT SITUATION

2.1 CROP PRODUCTION

Groundnut production is the mainstay of the economy of The Gambia. Traditionally it has accounted for some 85-95 percent of foreign exchange earnings and provided employment for a large sector of the population, (currently estimated at 800,000) via the growing of the crop, its internal transportation, processing and export.

The hectarage planted, yield per hectare, and thus total production has varied substantially over the past 15 years. The wide fluctuations are due to changes in climatic conditions and prices paid to the farmer for his undecorticated nuts. Table 1, extracted from the US AID report of February 1989 gives the historical details.

TABLE 1

GROUNDNUTS: PLANTED AREA, HARVESTED AREA AND PRODUCTION IN THE GAMBIA, 1974/75 TO 1987/88

Year	Area Planted	Area Harvested	Yield Kg/ha	Production 000 Tonnes
1974/75	104.80		1,385.00	145.20
1975/76	96.80		1,429.00	141.10
1976/77	107.60		1,329.00	143.00
1977/78	105.40		949.00	100.00
1978/79	106.20		1,256.00	133.40
1979/80	96.90	67.80	986.00	66.90
1980/81	82.50	68.90	874.00	60.20
1981/82	92.50	80.70	1,349.00	108.90
1982/83	98.50	95.00	1,593.00	151.40
1983/84	110.00	97.20	1,172.00	113.80
1984/85	98.50	91.40	1,150.00	105.10
1985/86	65.90	58.50	1,295.00	75.80
1986/87	-	-	-	110.95
1987/88	-	-	-	120.00

1. Area estimates are in 1000's hectares
2. Groundnuts are reported in undecorticated form

Source: PPMU (Ministry of Agriculture)

For 1988/89 the total hectarage planted was 99,550 area harvested 94,760, yield 1,038 kg/ha a total production 98,360 MT.

For 1989/90, Table 2 gives details of the latest figures of hectarage and yield estimates on a regional basis.

TABLE 2

GROUNDNUTS: PLANTED AREA, YIELDS AND PRODUCTION IN THE GAMBIA 1989/90

	Western Div	North Bank Div	L.R. Div	M.N. Div	U.R. Div
C.	10,890	22,720	6,780	26,350	19,610
H.	10,830	22,710	6,700	26,310	19,450
Y.	1,270	1,750	1,530	3,270	1,190
P.	13,000	39,760	10,330	42,410	23,140

C. is estimated hectarage planted
H. is estimated hectarage harvested
Y. is estimated yield per hectarage/whole nuts
P. is estimated production in whole nuts

Total yield for The Gambia in 1989/90 was approx 129,000 MT of whole nuts.

Source: Department of Agriculture - Department of Planing, November 1990

As of 5 October 1990, the estimate of crop to be harvested was 91,861 ha to give a total yield of 118,500 of whole nuts. Table 3 gives the estimated figures for the 1990/91 season.

TABLE 3

PRELIMINARY INDICATIONS OF AREA, YIELD AND PRODUCTION FOR 1990/91 5 OCTOBER 1990

Crop G/N		Gambia 1990	Western	North Bank	Lower River	M.I.D. (North)	M.I.D. (South)	U.R.D.	Gambia 1989/90
Groundnut	C	92,119	11,266	29,211	6,749	11,795	12,801	20,295	86,346
	H	91,861	11,234	29,211	6,726	11,766	12,801	20,125	86,061
	Y	1,290	1,330	1,310	1,680	1,300	1,530	950	1,509
	P	118,505	14 941	33,266	11,300	15,296	19,586	19,117	129,899

Note: C = Cultivated Area ('000 ha)
H = Harvested Area ('000 ha)
Y = Yield (kg/Ha)
P = Production ('000 tonnes)

Groundnut yields presented in undercorticated form

Source: National Agricultural Sample survey for 1990/91 crop season

However, since these estimates were made on 5 October 1990 on the assumption that the rains would go on until the end of that month, they have now been drastically revised. The rains stopped on 15 October 1990. No rain has fallen since then and total crop estimates are now down by about 25 percent of the 5 October 1990 estimates. It is likely that the total crop for the current 1990/91 season will be around 85,000-90,000 MT of whole nuts.

Most groundnut farmers in The Gambia are subsistence farmers and plant between 0.5-1.0 ha of groundnuts each season. It is virtually the only cash crop they can grow to provide for necessities other than food. There is a steady flow of young people from the farms to the city in the expectation of a better life. This is depleting the amount of labour in the farming sector and leavning the hard work to the older farmers. The only compensating factor is that there is a steady increase in animal traction thus enabling the farmer to grow a larger area than could be given previously by hand.

2.2 PRODUCER PRICES

Prices, like production, have fluctuated erratically over the past decade. In the past prices were determined by GPMB after consultation with the Department of Agriculture and the Finance Ministry with GPMB having the strongest voice. Up to 1984/85 the low prices set for the farmer, were in effect a tax on groundnut producers.

As a result of the Economic Recovery Program instituted in 1985/86 farmer prices were increased to Dalasi 1,800 in 1986/87. In 1988/89 prices dropped to Dalasi 1,100/MT ton and the price for the crop in 1989/90 was Dalasi 1,200/MT ex-farm gate or Dalasi 1,650 delivered GPMB depot in minimum 5 tonne lots.

Producer prices once announced at the start of the season remained constant for the season and were based on what GPMB thought the world market price for kernels, oil and cake was likely to be during the 6 month season. As world market prices fluctuate daily it was in GPMB's interest to set as low a price as possible to the farmer in order to insure against a fall in world market prices. In the event of world market prices rising GPMB would hope to make a bigger profit, if the market went against them and they made a loss, the Government picked up the shortfall. This has now changed. The private sector is now permitted to buy groundnuts direct from the farmer and process and export on their own account. In addition GPMB is expected to stand independently and will get no further handouts from Government to cover losses. This is likely to make GPMB even more cautious in setting a buying price for the 1990/91 season.

Even with the relatively low wholenut prices paid to farmers in the past, there has been a positive cost value ratio (CVR) according to the Department of Agriculture. A good farmer applying the right amount and type of fertiliser, seed dressing and insecticides during growing and storing could expect a CVR of 4:1. A poor farmer putting in the minimum inputs could expect a ratio of 2:1. These ratios were based on subsidised fertiliser prices and other inputs. Subsidies have now been removed and the farmer is now paying world prices for his inputs but still getting less than world prices for his output, due mainly to the inefficiency of GPMB.

2.3 TRANSPORT AND DISTRIBUTION

Historically, some 85-90 percent of groundnut transport from GPMB depots to their processing facilities at Kaur and Denton Bridge has been by river transport, by far the cheapest method. Road transport operated by GCU and others has been the prime mover of whole nuts from farm to GPMB depots. On some occasions groups of farmers would combine their crop, hire their own transport and deliver minimum 5 ton lots to the GPMB depots. The difference between the ex-farm price and delivered depot price was sufficient incentive to make this possible and profitable.

In the 1989/90 season GOTG allowed private traders to purchase groundnuts ex-farm, but as they had no processing facilities and no firm export markets, they were forced to sell to GPMB depots, making their profit on the differential between ex-farm price of Dalasi 1,200 and the delivered GPMB depot of Dalasi 1,650.

Over the past decade the GCU has been the major buyer ex-farm. It has the largest fleet of operating trucks in The Gambia, but is now in direct competition with GPMB. GCU's problem is that it does not yet have access to processing facilities and there is no world market for undecorticated nuts. One disadvantage that GCU has is that all its nuts sold to GPMB depots must be pre-cleaned whereas farmers delivering 5 ton lots can get the same price as GCU for un-cleaned nuts.

2.3.1 River Transport

River Transport via The Gambian River Transport Company is by far the cheapest form of transport, not only from GPMB depots along the river, but also for other agricultural crops and inputs including rice, sesame, cotton, fertilisers and chemicals. It is vital that the fleet of tugs and barges owned by GRTC is maintained at the highest possible standard, otherwise the economy of The Gambia will suffer substantially.

The beginning of 1990 brought with it serious concern regarding GPMB and GRTC's future plans for evacuating the groundnut harvest from up-country GPMB field warehouses. Any plan would be contingent upon the provision of funds to the GRTC before the start of the marketing season to rehabilitate the functional remnants of its fleet. For the 1989/90 season the requested funds were not provided, the proposed repairs did not take place, and with the marketing season complete much damage was done in terms of lost cargo and damaged groundnuts due to leaking barges.

GRTC's problems are well known and not difficult to understand. After years of "deferred" maintenance and managerial neglect, the fleet is in poor condition. Whereas the river fleet once included 60 barges and 8 tugboats, GRTC's fleet now comprises 22 barges/lighters and 3 tugboats. Furthermore, the boats that are actually functioning are extremely old and in obvious disrepair. Tugs are on the average 40 years old, slow, fuel inefficient and prone to serious breakdown at any time. GRTC's largest tug, the MT Kuntaur, can haul 20 or more barges at a time but has not been put into regular operation this year because management has determined that it is not cost-effective to run the big tug at less than full capacity (i.e. there are not enough lighters/-barges available).

With only 22 lighters functioning, GRTC cannot institute a rotation of lighters and is experiencing further evacuation delays due to inefficient loading and unloading of lighters at GPMB depots. Even among those lighters listed as functional, at least several suffer leakage problems resulting in significant losses of groundnuts coming into Denton Bridge for processing. It is not uncommon to observe crews unloading tons of rotting, black-colored groundnuts onto the ground from lighters containing several inches of water. According to GRTC staff at the site, the lighters in question had been punctured underneath by iron rods projecting out of The Gambia Ports Authority run slipway at Bara. GRTC employees at Denton Bridge state that the company will be held liable by GPMB for losses incurred during transport, regardless of who actually is ultimately responsible for the damaged craft.

Without a GRTC slip at Denton Bridge, repair crews are forced to work on the boats in the water and must wait for low tides to reach the damaged areas.

Last season GRTC received a flat rate of Dalasi 38/ton transported. Given that transport losses were charged by GPMB to the company at the rate of Dalasi 1,650/ton, it is not difficult to imagine how last season was unprofitable for GRTC.

The reason is that GRTC is a wholly owned subsidiary of GPMB and that the parent company is in a position to dictate what rates it will pay for the transport of groundnuts and any other produce. Last year, for the 1989/90 season the National Investment Board, (NIB), was involved in the freight negotiations and the rates did rise but not enough to cover maintenance and depreciation as GRTC would have wished. The rates agreed were just enough to cover operating expenses with no margin for profit, maintenance and repair. At present GRTC is in debt to its parent company to the tune of Dalasi 10 million. GRTC has an overdraft of Dalasi 200,000 and is owed Dalasi 350,000 from GPMB for work carried out. Law suits have been issued between parent and subsidiary, a most unsatisfactory state of affairs.

Last season the GRTC negotiated the following rates with the assistance of NIB.

Zonal Freight Rates	- Per tonne	
0 - 25 miles	Dalasi	50.22
0 - 49 miles	Dalasi	57.47
0 - 89 miles	Dalasi	67.04
0 - 129 miles	Dalasi	78.64
Above 130 miles	Dalasi	87.34

While these are the best freight rates ever obtained by GRTC, they still provide little or nothing for repairs and renovation. GRTC are at present negotiating freight rates for the 1990/91 season.

The current state of the GRTC fleet is as follows:-

3 tugs, 2 operative and 1 de-commissioned.

There are 28 barges in existence of which 11 are in fair condition and 17 need major repairs, ie replating, before being fit for operation in the 1990/91 season. During the 1989/90 season GRTC lost five barges. Four were written off as unusable, the fifth sank between Banjul and Kaur, with a load of 130 tons of fertiliser.

2.4 PROCESSING FACILITIES

The Gambia Produce Marketing Board (GPMB) currently operates three processing facilities located at two sites within the country. The Denton Bridge (Banjul) plant consists of two separate units, a decortication plant and an oil mill, while at Kaur there is a decortication Plant. Denton Bridge is located about 6Km south of Banjul while Kaur is some 1) Km from Banjul on the northern banks of the River Gambia.

The original nominal capacity of the decortication plant at Denton Bridge was quoted to the mission to be 400 TPD, however, it currently operates at about 200 TPD. The nominal capacity of Kaur was stated as 650 TPD. Both nominal capacities are based on a 24 hour operating cycle. However, while the facilities at Denton Bridge normally operate on a twenty four hours basis the plant at Kaur works a sixteen hour system.

The oil mill at Denton Bridge was said to have a nominal capacity of 240 TPD of infed nuts when utilising the three processing lines. Management stated that current capacity was probably less than 180 TPD but the lack of weighing equipment prevented an accurate estimate.

The processing equipment at all three sites requires considerable work to reinstate the manufacturers original capacities and although the work required at the two decortication plants is relatively straight forward there is the problem of insufficient spare parts to complete this before the commencement of processing this season's crop.

The oil mill is in need of considerable rehabilitation which will be expensive as the supply of spare parts in the central stores would barely cover the requirements for two of the fourteen expellers installed in the plant. The likelihood of procuring these parts prior to the new season's crop is almost impossible as De Smet Rosedowns, the expeller manufacturers, have quoted on the 19 November 1990 to the mission a minimum delivery date of five months from receipt of a confirmed Letter of Credit.

It appears that GPMB have been trying to source necessary parts for the expellers but have not been approaching Rosedowns directly. Rosedowns have been receiving enquiries from third party contractors which have been traced back through machinery serial numbers to the equipment supplied to The Gambia. It would seem certain that no spares are on order from any source for the oil mill.

During the course of inspecting the oil mill premises it was noted that the boundry wall on the western side of the property was in imminent danger from encroachment by the sea. In some places the wall had already collapsed and a house formerly occupied by a Chief Engineer had sufferred serious damage to its foundations. It would appear on first examination that the cost to prevent further damage and encroachment of the sea into the site would prove to be not only a considerable undertaking in terms of civil engineering but would also be very expensive.

There are ample storage facilities at all three sites for undecorticated groundnuts and finished products. In addition to the site facilities, GPMB also have a number of handling and storage depots at various locations throughout the groundnut growing areas. Time did not permit an inspection of these depots which are located at Kuntaur, Basse, Tendaba, Bansang, Kudang, Kerewan and Barra. In addition to these seven depots there are two transit depots located at the processing sites. Raw material deliveries to both processing sites are achieved primarily by the use of river barges which account for more than 85 percent of the total purchased crop.

The major processing constraints at the present time apart from those previously mentioned are in determining the exact weight of delivered, undecorticated nuts and accurate weighing of outurn production. The oil mill is also faced with the additional problem of analysing crude and refined oil quality and assessing the levels of toxins in press cake as no suitably equipped laboratory exists within the processing plant.

2.4.1 Production Throughput 1989/90

The total groundnut purchases by the GPMB during the 1989/90 season was given as 49,406 MT from which an outurn of 33,596 MT of FAQ decorticated nuts would be expected. GPMB declared an outurn of 33,124 MT, a shortfall of 472 MT. Management accounts supplied to the mission state stock losses at Denton Bridge to be 2,169 MT of decorticated nuts, therefore, indicating that the total unaccounted loss of decorticated nuts for the processing year to be 2,641 MT.

Decorticated nuts exported totalled 13,509 MT from which 427 MT were sold as machine graded. The sales revenue achieved from these sales is declared at Dalasi 53.654 million. The exported total is made up from production from Kaur (11,985 MT) and from Denton Bridge (1,524 MT).

Decorticated nuts supplied to the oil mill were stated to be 21,270 MT from which the declared yields of press cake were 10,117 MT while exported crude oil was placed at 5,897 MT. Refined oil was declared at 2,000 MT but as no laboratory figures are available to support refining losses it is difficult to be certain what quantity of crude oil produced this figure. Export earnings from the mill are made up from the sale of all crude oil produced and 9,663 MT of press cake which totalled Dalasi 57.715 million. All refined oil was sold on the local market as was 454 MT of press cake which together realised a revenue of Dalasi 13.719 million.

The total revenue for the 1989/90 financial year is Dalasi 125.088 million. The revenue lost as a result of the stock discrepancies mentioned previously was Dalasi 10.45 million.

The yield of decorticated nuts from each plant is identical, 68 percent, which is unlikely given that the equipment at Kaur appears to be more efficient than that seen in operation at Denton Bridge. The position is made to look worse as the yields from these two units for the previous year showed 72 percent recovery of kernals.

A similar situation exists at the oil mill where crude oil recovery calculated from declared management accounts shows a yield of 37 percent compared with a yield of 45.4 percent for the previous year. Press cake yields are indicated at 47.56 percent, down 5 percent on the previous year. If this year's figures are correct then it would indicate that a process loss of 15.44 percent on infed materials has taken place. As previous year's process losses have averaged about 2 percent it is extremely difficult to account for the sudden increase in losses. In basic terms it means that 13.44 percent of the materials charged against the oil mill are unaccounted for and equate in decorticated nut weight to 2,858 MT. This loss is over and above the declared stock discrepancies declared previously in this report. Had this material been processed into oil and cake an additional total of 1,057.5 MT of oil would have been realised and 1,359 MT of cake. Using the sales prices contained in the management accounts these two losses would have realised a further Dalasi 9.97 million.

The total loss in revenue is Dalasi 20.42 million.

2.4.2 Laboratory Results of Samples

Samples taken from the oil mill and decortication plants at Denton Bridge were analysed in UK by an independant source and the results provided are examined below.

A sample of press cake was analysed for residual oil content, moisture and toxins. The toxin result is not yet to hand but will be advised under seperate cover as soon as possible. The residual oil content was quoted to be 5.3 percent with a moisture content of 7.64 percent. Neither of these results can be criticised and given the age and condition of the expellers the results are better than expected.

The crude oil sample was analysed for moisture and free fatty acid (FFA) content. The results indicated the FFA to be 1.85 percent and the moisture was 125 ppm. Again the results are good. The laboratory did comment that the oil sample contained a per centage of fines but when passed over a polishing filter cloth they were readily absorbed. In terms of international quality the sample was acceptable.

A sample of decorticated nuts were analysed with the request that special attention be paid to FOSFA standards controlling FAQ limits. The results were very bad and probably account for the number of quality claims made against GPMB. The following points were noted:

Whole nuts in decorticated sample	-	30.4 %
Broken hulls (shells)	-	1.9 %
Decorticated kernals	-	65.4 %
Other solid matter (dust, twigs etc)	-	2.3 %

When this sample was further ground down to eliminate whole nuts the results became as follows:

Hulls (shell fibres)	10.5%	MAXIMUM ALLOWED IN FAQ 1%.
Kernals	87.2%	
Other solid matter	2.3%	

The high levels of fibre are due to the poor state of the decortication machinery and indicate problems with worn drum plates and inefficient drum screens. There could also be process setting problems in as much as the pneumatic aspiration system draft was too low. Equally the high percentage of small grade C nuts is due to them passing direct through the drum screens without being decorticated. (Hence clause No 2 in the draft decorticating contract in Appendix 4).

A sample of this season's nuts were tested and while the results cannot be guarantees to last year's crop it is firmly held that they would not differ significantly. On such an assumption it appears that considerable quantities of crude oil have not been accounted for in the management accounts supplied to the mission. The results indicate the following:

Oil in kernals-moisture free	-	51.30%
Moisture content in whole nuts	-	21.55%
Shells as a per centage of whole nut weight	-	28.00%
FFA by ether exacted soxhlet thimble	-	0.39%

The high moisture content indicates that the nuts have not been sufficiently dried and if this is a true reflection of the crop as a whole then the risks of aflotoxin contamination will be very high. It was also observed that more than 40 percent of the sample contained insect holes in the shells indicating that the crop is being dried directly on the surface of the soil and not on the concrete plinths that were observed by the mission on their field trip to Kaur. The quantity of shells by weight of whole nut shows that the yields quoted by GPMB after the decortication process are incorrect. GPMB results indicate a recovery rate of 68 percent when in fact the yield should be closer to 72 percent.

The oil content presents the most worrying factor at 51.3 percent for management accounts for 1989/90 show an oil recovery rate of 37 percent. The laboratory results have proved that the residual oil in the press cake is 5.3 percent. It therefore, follows that the total of these two results is 42.3 percent leaving 9 percent crude oil unaccounted for.

As stated in the previous paragraph this season's crop may differ slightly to that of last season. However, as the variety of planting stock has not been improved, it is a fair assumption that the difference,if any, would be very small and certainly would not account for a 9 percent loss in crude oil recovery rates. As the oil recovery yields in previous years have been declared at about 45 percent and assuming that the residual oil content in cake has remained constant then the backward calculations returns us to an oil content in whole nut of over 50 percent.

2.4.3 Human Resources

The Operations Director, GPMB, indicated that he was not in a position to give staffing levels at each unit as this was a matter for the unit manager. The unit managers at Kaur and the decortication plant at Denton Bridge were not available to comment and the only certain figures supplied to the mission were from the Chief Engineer at the oil mill. If the oil mill figures are representative of the other two units then it would appear that GPMB has an overstaffing problem particularly in the use of seasonally engaged staff.

It was advised to the mission that many of the senior management based at head office had been appointed quite recently or certainly within the last eighteen months. Obviously, it takes some time to understand a new working environment and this may account for the differences observed in the production performances reported on this year.

Line management appeared to be competant particularly at the oil mill and were able to answer most of the mission's questions. The Chief Engineer at Kaur was not interviewed as he had been given time off duty by the Operations Director several minutes before the mission were scheduled to meet the Director and as such no comment can be made on the engineer's ability. His assistant who was met during the mission's visit to Kaur, however, was unable to answer many questions put to him prefering to say that the Chief Engineer was the only person with the information requested. During this visit to Kaur it was not possible to speak with the unit manager as he had left earlier that morning to travel to Banjul. Subsequent requests made to the Operations Director to contact the manager in Banjul failed. Requests made to the Central Stores Manager to provide stock records of spare parts did not materialise either. However the assistance given by the stores accountant was most useful to the mission.

It would seem that line management are not kept fully informed of head office decisions, therefore, this breakdown in communications works against the efficiency of the Board. Similarly, it would appear that head office do not encourage line management opinion or involvement in the day to day running of the operations.

2.4.4 Production Costing

Undecorticated nuts are purchased by GPMB from the private sector buyer and producer based on delivered weight, that is shells plus kernals. This is the basis of the into store price, however, every following cost in the process chain is based on the out turn tonnage of decorticated nut.

Management accounts indicate that the costs to decorticate one ton of wholenuts is Dalasi 123.48 which is derived from the out turn tonnage of decorticated nuts rather than on the tonnage fed into the process. As there is an obvious cost to process these whole nuts it is not clear why management use the out turn figure as the basis of their costing procedure, particularly when the costing system adopted for the oil mill is based on infed materials and not the out turn of crude oil and press cake. The effect of using the out turn figure increases the actual cost of decorticating by Dalasi 39.51 per MT.

As the buying price is based on actual delivered weights and all processing costs are based on out turn tonnage the total over costing is Dalasi 108.87 per MT.

The charges made for electricity and water at Kaur may be correct as there is the need to purchase fuel oil for the generator. However, the same cannot be true at Denton Bridge where all processing electricity is produced by steam supplied from a waste fired boiler using groundnut shells. When there is no production the normal practice is to use either The Gambia Utilities Company (GUC) supply or to use a smaller standby generator in the factory. As the costs to operate the standby generator are shown in the accounts under the heading of 'Machine running costs' it seems impossible that the cost to light the Denton Bridge factories during non-productive hours could be anywhere near Dalasi 194,000. Water is drawn from the River Gambia at no additional cost so why the accounts show such a charge is not understood.

The charges made for empty bags seemed extremely high, particularly those applied to the oil mill, and discussions with the Chief Engineer indicated that the majority of bags charged against his account were in fact used in the decortication plant. Furthermore he indicated that although press cake was filled into bags prior to exportation the majority of these bags were returned to the stores after loading on ships and while he paid the full price for these bags his account was not credited when the bags were returned to the stores. To further exacerbate the problems of costing, the stores charged him again when he withdrew the same bags he had previously paid for but at a lower rate than when new.

It seems clear that the costing system applied by GPMB is in many cases ficticiously high and as these costs affect their profitability it is felt that their many inefficiencies are being passed onto the producer by lowering the buying price of undecorticated nuts.

2.4.5 Inventory of Processing Equipment

Kaur Decortication Plant

The process flow is laid out in two separate lines which can be ran in parallel or singularly. Each line has its own barge discharging system and primary cleaning equipment for undecorticated ground nuts. The common equipment to both lines is the decorticated nut bucket elevator, buffer bin feed conveyor, the buffer bin itself and the two bagging off points located beneath the bin.

The equipment installed comprises:

Barge unloading screw augers.
Intermediate collection hoppers with weigh scales.
Screen cleaning equipment and weighers.
Pneumatic blowing system.
Transfer conveyor systems to decortication mill.
12- Louis Samat drum decorticators approx. 50TPD each.
1- Louis Samat drum decorticator approx. 85TPD
Sets of decorticated nut transfer conveyors.
Sets of bucket feed elevators.
Bagging off point with buffer storage bin.
Pneumatic blowing system and cyclones for shell discharge to waste.
Ancillary Equipment.
1- Allen diesel generating set 687 KVa slow running.
1- Allen diesel generating set 250 KVa slow running.
1- Lister diesel generating set 50KVa high speed.

The above equipment was not seen in operation. However, as it was under maintenance it was possible to examine the internal components of some of the decortication machinery which was open. Considerable wear was noted on the drum plates and some screens were in need of replacement. Spares were in limited supply and not sufficient to complete the planned maintenance work.

The smaller of the two Allen generator plants has a faulty alternator but the engineering department were unable to specify the problem. A lack of electrical instruments has made it difficult to identify the problem and as a result it is doubtful if any spare parts have been ordered.

Denton Bridge- Decortication Plant

The equipment installed is in a single line configuration, although there are four discharging lines. Three of the discharging lines are set up to unload river barges while the fourth line is for unloading road vehicles. Only one point exists for bagging off decorticated nuts. This unit processes primarily the feed stock for the oil mill and any FAQ nuts exported from the plant are usually only top ups to short loadings made by Kaur.

The installed equipment comprises:

3 sets of unloading, weighing and cleaning equipment for river barge deliveries of undecorticated nuts.
1 set of unloading, weighing and cleaning equipment for road vehicle deliveries of undecorticated nuts.
7- Louis Samat drum decorticators of approx. 50TPD each.
Sets of bucket feed elevators.
Sets of worm scroll conveyors.
Pneumatic discharging system for shell delivery to boiler plant.
1- Decorticated nut bagging off point with buffer storage bin.
Ancillary Equipment.
All services are drawn from the oil mill.

The plant was seen in operation several times throughout the mission. However, it was subject to numerous breakdowns during this time. Spare parts are not available from the central stores nor does it appear that any are on order. Over a four day period the plant processed less than 200 MT of undecorticated nuts and the continual stop start mode of operation must be proving highly expensive to GPMB, especially as a full staff of production workers are retained and only the final stock remnants of the season, totalling less than 200 MT, have to be processed. It is not understood why head office management have not accepted advice given by the Chief Engineer which basically is to cease this year's operations and let him have access to commence his maintenance programme.

Denton Bridge - Oil Milling Operations

The expeller section of the factory is in a very poor state and there is little in the way of equipment to improve the efficiency and performance of the mill. It is dirty, with discarded kernels and press cake on the floor, which as a primary producer of food for both the international and domestic market is unacceptable. In addition it was noted that many machines had missing drive belt guards and worm conveyors mounted at floor level did not have covers fixed above the augers to prevent any operative from being trapped should he accidently fall into the moving parts.

The nature of these failures is contrary to the mission's opinion of the technical competence of the two senior engineers and it can only be assumed that no team spirit exists in the GPMB.

The installed equipment comprises of:

Set mechanical handling equipment of flat rubber type conveyor system with mechanical weighing buckets running from the decortication plant over a double carriage road way to the oil mill.

3 - De Smet Rosedowns type Long Cage expellers.
4 - De Smet Rosedowns type Mark 2 expellers.
5 - De Smet Rosedowns type 'D' expellers.
1 - De Smet Rosedowns type 'E' expeller.
1 - De Smet Rosedowns type Mark 3 expeller.
(with exception of the Mark 3 expeller all others have their own cooker/conditioners)
1 - Niagra oil/foots vibratory seperation screen.
4 - 30"sq. Plate/Cloth filter presses and pumps.
2 - Broom Wade air compressors (one requires a governor)
Sets - Worm scroll conveyor systems.
Sets - Buckey elevators.
Sets - Electric control gear for above.
Refinery.
1 - De Smet Rosedowns 7 ton batch neutraliser/bleacher vessel.
1 - De Smet Rosedowns 7 ton batch deodorizer.
1 - De Smet Rosedown 30" sq. Plate/Cloth filter press and pump.
Sets - Oil feed pumps.
Sets - Electric control gear for above.
Sets - Vacuum raising equipment.
Ancillary Equipment.
1 - Parsons-Peebles steam turbine sized at 1.5MW with electric swithgear and change over switching.
1 - Rolls-Royce diesel generator with Dale alternator sized at 380 KVa with mounted electric control gear and fuel tank.
2 - Fraser water tube waste fired/gas oil boilers.
Set - Water treatment plant for boiler feed water.
Other Equipment in No 1 Oil Mill but not in regular use;
1 - English Electric steam turbine rated at 0.7MW with control gear.
4 - Louis Samat drum decorticators.
2 - Tandem decorticators.(Preston Engineering-UK)
1 - 10 TPD De Smet Rosedowns Batch Refinery.
Equipment lying in the No 2 Oil Mill unused;
3 - Louis Samat drum decorticators.
6 - De Smet Rosedowns Mark 2 expellers.
Set - Workshop Equipment.
Set - Laboratory Equipment.
3 - Avery 20 ton capacity road weigh-bridges.

The general condition of equipment in the No 1 oil mill is little better than average for its age but considering that it has barely operated at more than 35-40 percent of its designed capacity since installed then the condition is poor. The cost to rehabilitate this equipment would be in the order of US$ 1.5 million and could not be completed in time for this current season, in fact it is doubtful if it could be complete before the 1991/92 crop is ready to process. In its current condition it cannot be relied upon to perform satisfactorily, therefore it should not be considered in the short term plans other than to produce refined oil for the domestic market.

Other equipment lying around the No 1 oil mill has in many cases been canabalised to provide spare parts for other areas of the operation. The steam turbine is said to be in working order but has not been used for more than two years since it was replaced by the Parson-Peebles. The 10 ton batch refinery could be rehabilitated as the only problem lies within the vacuum raising equipment. However, as the new refinery is more than capable of handling all domestic oil requirements it seems unnecessary to consider any investment in it at this time.

The workshop equipment is antiquated, again like other equipment it has not been well maintained. Some rehabilitation is necessary to allow day to day machining work to be performed but the bulk of the work should be contracted out in the short term.

The laboratory is so badly equipped that no useful functions can be performed and even if the mill is to operate on the supply of domestic oil it must be upgraded to a point where tests can be performed to ascertain that the product is of a food quality.

The various items of decorticating equipment apart from the two Tandem machines have been robbed of parts and although they could be brought back on line it seems unlikely that the necessary parts could be made available for this season's work plan.

The equipment lying in the No 2 oil mill particularly the expellers seem to be beyond effective repair at an economical cost. This equipment was in working order when it was abandoned but as it was not mothballed and it seems as though the main shafts have seized. The Samat drum decorticators require considerable rehabilitation work but it would appear that they could be economically recovered. The elevators and worm scroll conveyors could be easily recovered at minimum cost and in fact these would form an integral part of the alterations to be recommended for the Kaur plant.

2.4.6 Asset Valuation

The majority of processing assets held by GPMB are in excess of 20 years old and have as a consequence exceeded their expected useful life. In spite of this, GPMB revalued the assets three years ago and the value now being applied is based on current replacement costs. This valuation is totally unrealistic and could never be realised if the assets were put up for sale. In the short time available to the mission several newer items of plant were inspected and it is on these that GPMB could expect to realise a value.

The items in question are:

The Parsons-Peebles steam turbine and electrical control gear.
The Rolls-Royce Dale diesel generating set.
Two Fraser water tube boilers with water treatment plant.
The De Smet Rosedown 20 TPD batch refinery.
The decorticated nut conveyor system feeding the oil mill.

The above items are about six years old and still in reasonable to good order and could be used in a new oil mill project. The estimated value of these items, based on depreciated value and assuming a useful life of twenty years is about US$ 1.3 million.

Valuing the other assets is difficult as effectively they only had a nominal book value prior to July 1987 and time did not allow for anything more than visual inspection. It is unlikely that a private sector investor would purchase the expelling equipment in the No 1 oil mill as the cost to buy new would not exceed US$ 2.5 million and to rehabilitate what is currently there would be in the region of US$ 1.5 million. Another consideration to be borne in mind is that the technology adopted by these older type expellers has been replaced by micro-processor controlled machinery. Therefore, the current value of the remaining oil mill assets as they stand would not realise anything more than about US$ 300,000.

The decorticating assets at Denton Bridge and Kaur are in need of considerable expenditure to reinstate them to their original nominal capacities and while they could be used in the short term it is believed that their combined value is not more than US$ 340,000.

The power generation plant at Kaur, particularly the 687 KVA Allen engine, could be of use in a new development. It would require a major overhaul but its present value would be about US$ 150,000.

The majority of processing buildings are in a poor condition and require considerable renovation. The only building in reasonable condition is the decorticated nut despatch warehouse at Kaur which is worth about US$ 75,000.

Therefore, the total estimated value of useful processing assets would be in the region of US$ 2.165 million.

2.4.7 Adopted Technology

The basic principals of technology used in the process are not so different to those in present use elsewhere in the world. In the case of oil milling the principals followed still involve expellers although throughput capacities have been greatly increased over the machines installed in GPMB to the point where three machines could process the same volume in a single operation compared to the fourteen machines currently used in a two stage operation. Oil yield performance has been greatly increased and instead of the manual operation currently used the trend is now towards micro-processor control which guarantees the quantity of oil left in press cake.

As environmental awareness becomes more important technology moves towards physical refining of crude oil as opposed to the chemical process adopted at GPMB. The disposal of caustic soda contaminated soap stock is a particular problem at GPMB which they overcome by dumping the material into the sea.

Decorticating technology is more geared towards recovering lost kernels which historically were mixed with the discarded shells. Pneumatic aspirators have in many designs replaced the standard ducting fitted to the machines in GPMB. This can often produce a decorticated recovery rate well in excess of 75 percent of infed whole nuts instead of the 68-70 percent currently achieved. Reducing the quantity of discarded shells eases the problems of having to dump those surplus to requirements for burning in the boilers as fuel.

In the short term there is little that could be undertaken to match current technology and the emphasis should be placed on improving the yields and maintaining a regular processing pattern.

2.5 ENVIRONMENTAL ISSUES

GPMB seem to have no environmental protection programme whether this be towards workers safety or the contamination of land areas. Surface water drainage systems were observed to be choked with waste process water and soap stock produced by the refinery during the neutralising of crude oil is collected in drums and dumped either into the sea or the nearby river estuaries. The waste fired boilers were seen on several occassions to be emitting vast black clouds of fumes which could be seen for many miles. Questions relating to the disposal of shells were not answered in detail but if the the quantities surplus to use as boiler fuel are being burned within the factory land area there was no evidence of ash deposits.

In thehort term there is little that can be done to rectify the current disregard of environmental awareness apart from making GPMB appreciate the consequences of their actions. Soap stock could in the coming year be stored in drums in the hope it could be sold to local soap makers and surplus shells could be ground into a flour consistency for use in the oil mill as a binder to aid in the processing of foots produced during the crude oil screening otherwise they could be turned into fuel brickettes and sold.

2.6 MARKETING DOMESTIC

There is a thriving domestic market for groundnuts in The Gambia. Of the total production based on hectarage planted and estimated yield some 50-55 percent is disposed of within the country and the balance, comes on to the open market for sale to GPMB and private traders. Of the local consumption, some 10 percent of the annual crop is sold into the towns and cities, hotels, market traders and others. 10 percent is kept by the farmer for his own consumption, either as kernels or made into groundnut oil. Approximately 5-7 percent is kept by the farmer for seed for the following season and an unknown percentage sold to Senegalese traders for transport over the border into Senegal. While the trade into Senegal is in theory, illegal it is impossible to monitor in view of the extensive border between the two countries.

Over the past few seasons the price paid for groundnuts in Senegal has always been higher than that in The Gambia mainly due to the groundnut industry in Senegal and prices paid for the crop are still being subsidised by the government there. In the 1989/90 season, Gambian farmers near the border could obtain some

Dalasi 500 - Dalasi 600/MT more by selling to Senegalese traders, than the Dalasi 1,200/MT offered ex-farm by GPMB. This is a substantial premium. In addition, the Senegalese traders are ready and able to buy groundnuts shortly after harvesting commences, (ie early November). To the farmer cash-in-hand is a big incentive to sell sooner rather than later.

2.6.1 GOTG 1990 Groundnut Marketing Policy

As part of its ongoing Economic Reform and liberalization program, the GOTG introduced a revised groundnut marketing policy. The three most important new elements of which were:

1. The opening up of the domestic purchasing function to any and all interested traders;

2. A provision to permit farmers and unlicensed traders to sell directly to GPMB field warehouses;

3. From 1990/91 onwards GPMB will no longer hold a legal monopoly over all export marketing of groundnuts.

2.6.2 Farmers, production, and the first link in the marketing chain

There is a general consensus in the field that the marketing system, though improved over previous years, is still not functioning efficiently. Indications are that the marketing system is suffering from significant blockages at virtually every level of its operation. At the producer level, cash flow is cited consistently as the single most important operational problem. Farmers are interested in being paid on the spot, and in villages where private traders are able to offer cash, farmers will be willing to sell to them even at prices less than the expected market rate.

The cross-border trade into Senegal is apparently more active at the beginning of this year than last, though the reasons for this are somewhat unclear. Senegalese traders are reportedly circulating in some of the border villages and purchasing groundnut directly from The Gambian farmer. As usual, the principal incentive to sell to Senegalese traders is the higher prices (reportedly around Dalasi 1800/MT) being offered.

2.6.3 GCU, Private traders, middlemen

GCU seccos are in operation throughout The Gambia.

As was the intention of the revised marketing policy, private traders and middlemen have emerged in the countryside to fill the intermediary role between producer and the GPMB. The distinction being made between the two is that private traders operate from a fixed location in a particular village (much the same as GCU) while middlemen circulate from village to village to purchase groundnuts directly from farmers. In general it seems that middlemen are themselves farmers who have the means and the initiative to benefit from the opportunities created by the revised marketing system.

In 1989/90, middlemen and private traders themselves experienced many of the same operational problems as the GCU, namely lack of operating funds and an inadequate supply of bags. The lack of bags was a particularly aggravating problem throughout the whole marketing chain from farmers, to GCU managers, to private traders, and GPMB officials. It would seem logical for farmers to own their own sacks rather than having to remain dependent on the GCU, which in the past has made sacks available to its member farmers on a credit/lending basis. In any event, lack of bags caused some delays in the farm to warehouse process.

In general, as this is only the second year under the new system, there has not been a great proliferation of private sector involvement in the domestic groundnut marketing trade and as a result direct benefits to the farmer are not yet evident. However, as the system takes hold in the coming years, farmers should benefit from higher purchase prices resulting from increased competition among increasing numbers of private traders.

2.6.4 GPMB, GRTC, the last link in the marketing process

The most serious and potentially damaging blockage in the groundnut marketing operation this year is at the GPMB level.

The real problem in the 1989/90 season was the inadequacy of GPMB means of moving the year's production from field warehouses to its central processing facilities at either Kaur or Denton Bridge in preparation for export. Theoretically all of GPMB's annual purchases of groundnuts should have been evacuated down the river using GRTC's fleet of barges and tugs but the condition of GRTC's fleet meant this was impossible.

The inefficiency of the system was further exacerbated by GPMB's unexplained delay in activating the decorticating mill at Kaur where processing groundnuts at the Kaur mill for direct export from Kaur port would certainly have helped to reduce GRTC's overwhelming transport burden.

It seems obvious that GPMB/GRTC must begin immediately to resolve the enormous transport/evacuation problems it is facing for the 1990/91 season.

2.7 MARKETING - EXPORT

Up to the 1989/90 season all exports of groundnuts were controlled by GPMB who were the only official buying agents and who controlled all the processing facilities for converting wholenuts into either decorticated nuts or oil and cake.

There is no world market for undecorticated nuts except at a massive discount to their value. Undecorticated nuts have approximately a 30 percent waste factor (shells and fibre) hence the ocean-going freight is 30 percent higher than for decorticated nuts. There is also the environmental factor of disposing of the shells in Europe, the nearest international market for groundnuts.

The Kaur plant is situated alongside The Gambian Port Authority wharf which is capable of taking ocean-going vessels up to 12,000 tonnes displacement. Regular shipments of decorticated nuts have been made from this port in parcels of 2-3,000 MT mainly destined for Rotterdam. Denton Bridge, has both decortication facilities and an ancient mill producing crude groundnut oil and cake. The decision as to how much to sell as decorticated nuts and how much to put through the mill for oil/cake is made annually by the directors of GPMB, presumably on their forecast of world market prices for the three products.

Two studies conducted in 1985 by The Ministry of Agriculture paper No. 10 and a US AID paper entitled Economic and Operation Analysis of the GPMB, both concluded that from the early 1970s to the early 1980s, GPMB lost money on its oil processing operation at Denton Bridge, whether this was due to poor operation of the mill, high overheads, poor marketing and/or other factors is not clear. From a marketing point of view and for maximisation of profit it would appear that GPMB should not have been processing kernels into oil and cake, but selling all product as decorticated nuts only. GPMB were somewhat reluctant to give information on their marketing strategy for the past season ie 1989/90. They closed down their London office last year which employed two full time British nationals and now only have a liaison man who handles freight, insurance and claims. For the volume of sales by GPMB it was never economic to have their own sales agents in Europe. It is understood that GPMB now use an exclusive broker based on Switzerland to do much of their marketing for them.

From information received outside of GPMB it would appear that for the last season (1989/90) the following average prices were obtained cif Europe:

- Decorticated nuts - £288 cif Rotterdam MT,
- Crude groundnut oil - £570 MT cif Rotterdam in bulk.
- Groundnut cake - £70 MT ex factory for shipment to Mauritania, in bags

Freight rates would appear to be £50 MT for crude oil, and £40 MT for FAQ decorticated nuts.

Crude oil shipments are in minimum 500 MT lots but sales have been made in 1,000 MT lots thus obtaining a better freight rate. There have been no demurrage charges in recent years for either crude oil, decorticated nuts or groundnut cake loading.

The accounts of GPMB show several claims for quality on both FAQ nuts and oil. These are denied by GPMB management who state that they were incurred before they took over the company. However, samples of the decorticated nuts taken from Denton Bridge and Kaur were analysed in the UK and there was as much as 10.5 percent fibre present. An acceptable level on the international market would be nothing more than 1.5 percent. Producing decorticated nuts with this level of fibre will undoubtedly give rise to quality claims. Section 2.4.2 details a report on samples taken from GPMB processing facilities.

2.8 FINANCIAL ISSUES

Future development of the groundnut processing industry in The Gambia will depend heavily on the ability of the financial sector to mobilise domestic savings and external funds. It is clear that the persistence of extremely high real interest rates that have confronted private borrowers since the beginning of the Economic Recovery Program will continue to limit private investment and impede the growth of industry within The Gambia.

2.8.1 Short-Term Lending

The major lenders of short-term loans to the private sector in The Gambia at present are the Standard Chartered Bank the Bank International for Commerce and Industry. The Gambia Commercial Development Bank is being privatised and has effectively ceased making new loans until restructuring and recapitalisation is complete. Lending consists primarily of overdraft facilities and the discounting of trade bills for importers with interest rates varying from 25-28 percent. With such high interest rates the majority of these short-term loans are made to importers who have a quick turnover with a relatively high profit margin.

Public sector bodies such as GPMB acquire short-term money through the Government's selling of T-bills whose interest rates are around 18 percent. These T-bills will be accepted as collateral for short-term loan facilities. Such low-risk and high yielding government borrowing has the effect of squeezing the money available to the private sector as real interest rates to the private sector rise and banks have no interest in lending to industries that require long-term finance when such short-term gains can be made.

2.8.2 Crop Finance

The largest use of short-term formal credit in The Gambia's agricultural system is for the purchase of groundnuts. In the 1989/90 season GPMB received new credits of Dalasi 73.2 million from end of September 1989 to the end of March 1990 and GCU and other private traders received crop finance in the order of Dalasi 5 million from the commercial banks. The amount of credit available has been agreed with the IMF in the context of its E-SAF program, and in some years the credit limits restrict the issuing of new credit. In the 1990/91 IMF program, Dalasi 55 million is projected for crop finance for the GPMB. This assumes a quicker realisation of export receipts than occurred in 1989/90 and a smaller crop purchased or a lower price.

In the 1989/90 season, the GCU and the EOTC paid back all their crop finance credits from the GCDB and the GOTG respectively. The GPMB repaid all of its outstanding credit from the GCDB including the Dalasi 16.6 million that was outstanding at the beginning of the 1989/90 trade season. This is the first time that both the GPMB and the GCU have paid off all of their crop finance before the upcoming season. It is an indication that although the financial reform process has been slow, it is now reaping macro-economic benefits.

The proposed system for 1990/91 and the issuance of Groundnut Bills to finance GPMB crop purchases would still generate an interest rate differential between the GPMB and the private operators in the groundnut marketing sector. The proposal from the Central Bank to GPMB for this season is that crop financing for GPMB would be raised through the Groundnut Bills (offered simultaneously with Treasury Bills) and GPMB would pay the Central Bank the T-bill rate (18½ percent interest) plus a 7.5 percent fee for its underwriting services and for its guarantee. Thus, if the GPMB agrees to this proposal, the rate they will pay will be close to the lowest commercial rates available, 26 percent. The private operators have to arrange their credit separately on commercial terms at 27 percent, implying bank security against their individual assets. The GPMB does not face these hurdles.

Although the proposed G-Bill rate is nearly a commercial rate, a difference in the financing arrangements still exists and GPMB enjoys some financial and fixed capital advantages. This may have the effect of driving out a substantial amount of the private trader competition and GPMB could use its competitive advantage to insulate itself from cost-cutting measures and thereby eliminate the benefits to groundnut producers that the liberalisation process was projected to deliver. Much of this hypothesis as it is the real belief within the industry that the vast operating inefficiencies and overhead costs GPMB have eliminates any competitive advantage G-bills might bring. It is however very important that the GOTG makes available, through G-bills, enough money, by mobilising the liquidity in The Gambian economy and not using NEW money, to ensure the total groundnut crop can be purchased this season. Furthermore without GPMB participation it is unlikely that the private sector will have the capacity to handle the total crop and therefore GPMB are needed to ensure total crop purchase. Future policy on issuing G-nut bills will depend to a great extent on the progress made in 1990/91.

The main difference still exists where private traders are required to mobilise collateral to borrow funds for groundnut purchasing. With reference to GPMB the G-bills are taken as collateral and none of the assets of GPMB are used as security. This policy does ensure that the present assets of GPMB's core groundnut activities remain in place for privatisation next year but it does raise the one question, who will bail GPMB out if substantial losses are made this year or will losses be carried forward into its eventual privatisation?

2.8.3 Medium and Long-Term Lending

In general there is a lack of interest by institutions and individuals in longer-term debt because of the historical short-term trading orientation of The Gambian economy. The Commercial

Banks are also constrained by credit ceilings and the need for high interest rates thereby limiting access to funds. Since The Gambia Commercial and Development Bank suspended lending there has been little long-term credit made available and there is no longer an apex institution serving the needs of development finance in the manufacturing sector. Neither is the insurance industry of The Gambia sufficiently developed to act as a provider of investment capital. Furthermore The Gambia has no formal deposit - taking or lending NBFI's, apart from the GPO Savings Bank and Social Security and Housing Financing Corporation and entrepreneurs without sufficient collateral must either rely on equity capital or borrowing through informal high interest loan markets.

2.8.4 External Financing Sources

There is very little in the way of external financing available to investors in The Gambia for longer-term investment where borrowing is limited by the amount of money available to the Commercial Banks under present constraints of credit ceilings and GOTG spending.

The US AID loan portfolio guarantee and the World Bank Enterprise Development Project are two sources of external funds for project development that are already in place. Little or no capital has been mobilised for projects because these sources are regarded as both cumbersome and high risk. The EDP involves money being drawn down by the Commercial Banks and on-lent to investors at commercial rates but the administration is so cumbersome that Banks have little enthusiasm, expertise or time available to mobilise such funds. The US AID loan portfolio offers a 50 percent guarantee for development project loans, Commercial Banks in The Gambia regard this as too low a guarantee for such a high risk long-term commitment.

2.8.5 Equity Markets

Formal equity markets do not exist in The Gambia where impediments to formation include lack of legal and regulatory structure, low levels of public awareness procedural, tax disincentives and poor experience of handling stock issues.

Any informal stock or share trading that exists is very small and mainly occurs between family members.

3.0 PROJECT PROPOSAL

3.1 PRODUCER PRICES

The consultants recommend producer prices are announced at least 2 weeks before harvesting commences, ie 15th October. However as GPMB is no longer the sole buyer of groundnuts and the private trade is open to compete with GPMB, there is, in effect, no need for GPMB to announce any price until it feels inclined to do so. It therefore becomes a cat and mouse game. Private Sector versus GPMB.

The problem is that GPMB control all the processing plant capable of turning the raw nuts into a form suitable for export. GPMB seem willing to decorticate for the private sector but have put forward a price of Dalasi 300 per tonne. This figured includes a storage and transit to mill charge which the private sector can do on their own, and also a Dalasi 100 per tonne charge for depreciation on machinery that has been written off twice over. The consultants have recommended a more reasonable decortication charge.

The consultants see a very difficult season ahead. It is likely that more nuts will be sold over the border into Senegal while GPMB and the private trade haggle over contract terms and play cat and mouse before announcing producer prices.

GPMB already have teams in the field organising syndicates of farmers for the coming season. Their minimum acceptable tonnage at their depots have been reduced from 5 tonnes to 3 tonnes. GPMB's budget for the 1990/91 season shows they hope to purchase between 25,000 and 30,000 MT and have increased depot numbers from 8 to 10. This budget implies they wish to purchase some 66 percent of the total estimated crop available for purchase within The Gambia. This is highly unlikely as the reduced crop is likely to create intense competition and with only 40-45,000 MT expected for purchase GPMB could get as little as 15,000 MT.

The Senegal Government, who still subsidise groundnut production, have not yet announced their prices for 1990/91. Evidence is there that Senegalese traders are already in The Gambia and purchasing nuts. For last season (1989/90) the Senegal price was between D500-600 higher than the official price set by GPMB. The longer the delay in Gambian interests offering a price for 1990/91 the more tonnage will pass over the border.

The consultants believe that a fair price for the 1990/91 season ex farm gate should be in the region of Dalasi 1,500/MT or Dalasi 1,800-1,900/MT delivered depot. This is based on the current approximate value fob of £250/MT or D3,625/MT for decorticated nuts, bagged, the Dalasi 1,800 being approximately 50 percent of the fob price. The consultants recommended price is also based on the view that the world fob price will remain reasonably constant over the next few months. GPMB should not set a fixed price over the marketing season as it is the intention of the private traders to vary price with movements in world prices and any favourable increase in world prices could put GPMB at a relative disadvantage.

GPMB should be involved in the purchase of groundnuts from the start of the season if they are to achieve any success in competing for crop purchases. Little is known about the total capacity of the private traders to handle groundnuts but delay by GPMB in purchasing crop in the hope of purchasing later at possibly a lower price as sources of purchase dry up, could be a very foolish tactic as relatively little crop may be left to purchase.

3.2 TRANSPORT AND DISTRIBUTION

Unless the GRTC is privatised immediately or divorced from its parent, GPMB, and given funds to operate independently, river transport will grind to a halt before the current groundnut season is over. GRTC must be given adequate funds to re-habilitate at least sixteen barges and to make necessary repairs on the tugs to ensure that they can function at least till the end of the forthcoming marketing season. GRTC is also requesting that the GOTC grant it adequate working capital and that transport fees paid to GRTC by GPMB be dramatically increased to reflect actual costs.

The consultants view is that the revival and renovation of GRTC is more important to the economy of The Gambia, than the renovation of the GPMB oil crushing facility at Denton Bridge. To try and move groundnuts to the processing plants of GPMB by lorry, would only worsen the present inadequate road system.

GRTC itself is worth very little, if anything, in terms of current assets. To privatise GRTC would be difficult in its present condition and any involvement by the private sector would have to be negotiated with the GOTG. Conditions for involving any interested private sector party would have to favour some short term policy for revitalising river transport. Provisions could include investment incentives such as reduced company Income Tax for the first 3 years as well as some GOTG protection on the new company's rights to river transport. Of course on the other hand GOTG would have to exercise some control on transport charges laid down by GRTC (or whatever the new company may be called), to ensure those who are dependent on the river for moving goods are not held to economic ransom.

3.3 MARKETING

While there was a certain amount of private trading last season (1989/90) when liberalisation was introduced, virtually all of the groundnuts available were processed through the two GPMB plants at Kaur and Denton Bridge. The margin made by the private trade was the difference between the buying price ex farm of Dalasi 1,200 and the delivered price to GPMB depots for minimum five ton lots of Dalasi 1,650 per tonne.

The Denton Bridge and Kaur plants could decorticate a reasonable tonnage of groundnuts for the private sector subject to the renovation of the decorticating equipment there and the full installation of the bagging lines already available. There is no way that any private buyer would be interested in putting groundnuts through the Denton Bridge crushing plant for processing into oil and cake. The facilities are so dilapidated that a reasonable yield of oil/cake would be impossible to predict and hence a sale of oil/cake onto the world market would be a lottery. Not the sort of scenario the private trader would want in its first year of operation.

GPMB have now found a market for cake in Monrovia who buy ex factory or fob in bags at £70 MT for feeding to camels. Camels being non-monogastric can consume the cake without any problem of poisoning. Quality is therefore not a problem and £70-£100 fob in bags is better than GPMB could ever hope to achieve on the world market.

3.4 PROCESSING

3.4.1 Facilities

Little or nothing in real terms can be achieved at the oil mill which would be of benefit in time for the coming season. The spare parts required for the expellers would take eight months to manufacture and despatch with a further period of three to four months to install. Equally the problems involving the sea encroachment onto the land site would have to be addressed before any financial committment can be considered. It is therefore recommmended that the only work performed on the mill be limited to meeting the processing requirements to produce sufficient oil to satisfy the domestic market.

Historically, the domestic market appears to have an annual requirement for locally produced oil ammmounting to about 2,500 MT which on this year's declared yields of 37 percent and a refinery loss of about 4 percent would require 7,038 tons of decorticated nuts. This throughput could be processed in no more than seventy days after which time the oil mill should be closed for the remainder of the season. The oil mill assets listed in section 2.4 as transferable in sale should be maintained. A new oil mill should be built.

The two decortication plants are an integral part of the future development of the ground nut sub sector and as such they must receive urgent priority to enable them operate to a satisfactory standard in this coming season. Failure to achieve this objective will have very serious repercussions on the long term security of the sector.

It is known and appreciated by all sectors that the decorticating facilities are old and operate at a level well below that required to compete on the world market both in terms of product quality and contractual obligations. This situation is compounded by the private sector who now having access to the processing facilities are highly doubtful that the out turn of product can be met on time.

For these reasons the only immediate short term solution is to initiate a Technical Assistance Project around the decortication plants at Denton Bridge and Kaur. This project should be divided into two seperate parts, 1. A pre-season maintenance project and 2. A processing supervision project.

Pre-season maintenance project

The maintenance project would have to commence no later than the 15th Dec 1990 to stand any chance of success. The work would primarily concentrate on the maintenance of equipment at both sites but in the case of Kaur it would also involve certain alterations to make the two installed processing lines capable of operating simultaneously without the risk of cross contaminating GPMB nuts with those of the private sector.

In essence this can be achieved by causing a break in the decorticated nut conveyor and by adding one additional bucket elevator to feed nuts from the machinery line direct to the existing hopper/bagging point. This hopper is currently configured in one piece but by welding a division plate internally it can be effectively seperated. Each side or division of the hopper has in place already its own bagging off point. The equipment to effect this change has been seen in the old No 2 oil mill and it has been reported to the mission by the Chief Engineer that all electric motorgear drives were put into central stores some time ago for safe keeping. It was not possible to ascertain this issue as requests made to the Stores Manager to confirm this point were not replied as had been agreed in meetings. Should these drives not be available they could be purchased off the shelf from any number of companies in Europe and if necessary be air freighted to The Gambia within a week of confirming the order.

The time input to affect these alterations would be about two or three weeks but preparatory work could be ongoing in the meantime if certain parts had to be procured from outside the country.

Ideally some method should be found to process GPMB and the private sector nuts at Denton Bridge simultaneously. The only short term answer to this would be to establish the condition of the two Tandem decorticators lying in the No 1 oil mill which have not been used in the last two years. The Chief Engineer believes as does the mission that the work required to bring them quickly back on stream is minimal and it has been requested that the engineer conducts some tests to ascertain this assumption. If they can be reclaimed they would provide for at least 100 tonnes per day of processing capacity and could be quite easily installed along side the existing Samat decorticators. Ample elevators and conveyors have been seen and their transfer and subsequent installation should not present too many logistical problems.

The first part of the TA could be achieved in a period of eight weeks with the assistance of one qualified expert.

Processing supervision project

The TA covering the processing aspects would require two experts, one at each processing location, and the length of input would be decided upon by the size of the crop to be processed. The main duties of the two experts would be to ensure that both sectors have equal access to the facilities and that the resultant out turn be of a standard to match Fair Average Quality (FAQ) and that processing time guarantees contained within the decortication contract are met. It is therefore felt necessary that the experts have a degree of line management executive authority to plan production runs and private sector accessing to the facilities.

A secondary component to the TA would be to train counterpart staff to a level of competance and to evaluate the fixed assets to assist GOTG to prepare a privatisation selling document. The final component of the experts work would be to devise qualtity control systems.

Terms of reference for both TA Projects are contained in appendix 3 of this report.

3.4.2 Decortication Contract

A suggested draft contract was prepared by the mission and submitted as part of the Aide Memoire at the final meeting in Banjul on the 16th November. This draft can be found in appendix 4.

3.4.3 Decortication Toll Cost

As in the case of the draft contract a proposed price was prepared and submitted at the final meeting in Banjul. The proposed cost is included in appendix 5 of this report.

3.5 FINANCIAL ISSUES

3.5.1 Crop Finance

Firstly, there are three scenarios regarding the difference in crop financing charges between GPMB and the Private sector:

1. For this season the present system of groundnut bills and minor preferential rates to GPMB should not be amended. Operating as a commercial enterprise for the first time the GPMB has a major role to play in this coming marketing season and having to borrow at level commercial rates with their added costs would probably price them out of the crop purchase market. Given it is unlikely that there is sufficient capacity within other private traders to purchase the whole crop there are real dangers that levels of crop purchases within The Gambia will be insufficient. Increased cross-border trade could take place which would benefit the producer but reduce potential earnings on value-added.

2. For the 1991/92 season GPMB should have access to crop financing funds at the same commercial level as all other private traders - 27/29 percent. Adequate funds could be made available to the Commercial Banks from the Central Bank who could subsequently on-lend money to groundnut purchasers. Assets of GPMB could be security to the commercial banks just as for all other traders.

Whilst this approach seems on paper a viable solution, it does not tackle the one key issue. Should GPMB be unable to compete, will private traders have the capability to handle the total crop. This question is not easy to answer given the variety of possible results that could come out of the 1990/91 season. The consultants firmly recommend that to enable the market to be fully liberalised that GPMB should be subject to commercial rates. Insufficient capacity within The Gambian groundnut sub-sector will only be a short-term constraint as the private sector develops. Whilst this will mean increased cross-border sales and loss of value-added to The Gambia at least the producer will remain relatively unaffected.

3. Private traders who do not have the collateral to put up against borrowings could alternatively raise funds from external sources such as credit from trade organisations in lieu of groundnut purchases and shipments. Whilst there lies the danger that in the longer-term this could present a means of bypassing the financial sector in The Gambia and undermining the present work being carried out in financial reform, as a short-term measure it could encourage greater private participation in groundnut purchasing. This is not a realistic solution for this year and it is highly unlikely that any overseas source of crop financing would be forthcoming until private traders have demonstrated their capabilities in exporting a good quality crop to contractual arrangements.

Whilst it is feasible that funds generated from groundnut sales could be held externally by private traders it is likely that funds would have to be repatriated to establish the money needed for the purchase of groundnuts or provision of inputs at the beginning of each season.

Secondly, given high interest rates, if the facilities of GPMB are used all efforts should be made by all parties concerned to ensure processing of groundnuts is done in the minimum time frame possible. The recommendations given under processing should be implemented as soon as possible.

Lastly, with regards the concept of GPMB acting as a last resort purchaser of groundnuts it is the opinion of the consultants that there is little danger of excess crop being unpurchased this year. The commitment and expectation of both the private traders and GPMB will more than accommodate The Gambian groundnut crop expected to be purchased (40,000-45,000 MT). The issuance of G-bills by GOTG and the availability of sufficient funds and the participation of the private sector should ensure competitive and relatively quick purchase of the total crop.

3.5.2 Longer Term Investment

Re-entry of The Gambia Commercial Development Bank into the financial sector will increase competition and should help apply downward pressure on lending spreads and real interest rates. Coupled with projected lower levels of borrowing by the Government, banks may be induced to make longer-term loans to clients and even accept lower levels of collateral. There are however some medium to long-term steps, that bearing GPMB in mind, could be of some importance in aiding the process of privatisation.

1. Develop and promote flexible, longer-term government debt instruments such as establishing a secondary market in its long-term bonds by buying them back in open market transactions from time to time. Heavier use of long-term debt instruments and correspondingly less reliance on short-term instruments will reduce crowding out of longer-term private sector borrowing.

2. Develop and promote external loan facilities. The World Bank on-lending program, US AID loan portfolio guarantee program, donor and non-grant organisation loan facilities as well as equity participation by external investors are all important areas for the development of The Gambia particularly in agro-industries and manufacturing.

   There should be active promotion of these sources to the commercial banks but the present perceived inefficiencies or problems of external loan facilities would need to be addressed. Re-shaping and amendment of policy towards external financing is necessary.

3. Provision and training of staff within the financial sector with specific reference to development project appraisal and mobilisation of external funding.

   Commercial banks should establish small units charged with the specific purpose of identifying development projects and packaging resources from outside the bank to fund them. It is unrealistic to expect the Central Bank, to take an active role as an apex organisation for externally funded or guaranteed development lending.

4. Grant licences to <u>selective</u> new financial institutions to increase competitiveness in the financial sector. Concept of selectivity by the Central Bank of The Gambia (CBG) is important to ensure a high standard of banking as it would serve no purpose to allow entrants of uncertain reputation or resources into a system

which depends so highly on public and investor confidence.

CBG should establish and promulgate detailed criteria for the granting of new banking and their financial institution licences including examining the present Financial Institution Acts to provide a clear and consistent set of ground rules for all participants in the financial sector.

5. Eliminate the Capital Cains Tax on sales of financial assets which would encourage the formation of a securities market in The Gambia and encourage longer-term investment through shareholding participation.

6. Company tax rate is currently running at 50 percent and this is considered detrimental to encouraging investment capital into The Gambia. This is higher than most West African countries and serves to put The Gambia at a competitive disadvantage in attracting foreign investment. The Company tax rate should be reviewed in lieu of the above.

4.0 FOLLOW UP AND ISSUES

4.1 CROP PRODUCTION

It is essential that the extension service of the Department of Agriculture continue to promote the improvement in growing groundnuts, via:

1. Animal traction so a larger hectarage can be grown by a single farmer.

2. Full application of all the necessary inputs, ie fertiliser, quality seed, insecticides for both cultivation and storage are applied.

3. Speed up the multiplication and distribution of the new 90 day "planting to harvest" varieties of groundnuts. The current local variety takes 120-125 from planting to harvest and in view of the increasing liability to draught the new variety of equal yield and quality, should be promoted vigorously.

4. Promotion of nut drying areas. Ideally this should be by glass framed drying areas, but chis is probably impossible under the present Cost Value Ratio. Concrete drying areas with a ridge of 6 cms round the boundary would be much better than drying on the ground. This is a practice carried out in Nigeria and saves at least 20 percent of the loss of nuts due to insect predators.

5. Mechanise as much of crop growing system wherever possible and feasible.

4.2 TRANSPORT - EXTERNAL

There are only two major ports in The Gambia, one is Banjul on the coast, the other at Kaur approximately 200 kms up river from Banjul. The latter is regarded as one of the most efficient small ports in Africa and Kaur is capable of taking ocean going vessels up to 12,000 tons. There are no real problems in utilising external transport although mention has been made of the need to remove the sunken barge on the river.

4.3 MARKETING

The prob..ms facing the private sector have already been discussed. There is no world market for whole nuts hence they must be decorticated in The Gambia or smuggled over the border. The private trade must ultimately have some control over storage and decorticating facilities in The Gambia or have cast iron toll contracts with either other private sector companies or GPMB if the latter is still in existence.

Once a trader can convince the overseas broker/buyer that the product will be available for shipping on a certain date a price will be quoted and sea freight booked.

From a strictly marketing view, it would be better that all nuts exported from The Gambia this season (1990/91) be sold as decorticated with none going through the crushing mill at Denton Bridge. The mill has invariably lost money in converting kernels to oil/cake and should only be used to produce oil for the local market this season.

With luck there might well be a new modern crushing facility in operation by the 1992/93 season and the option of crushing into oil/cake will be a viable proposition.

4.4 PRIVATISATION OF GPMB

The GOTG's foreign investment policy is generally favourable to foreign investors. Foreign investors can own 100 percent of share capital in a Gambian venture and there are no licensing or nationalisation efforts that would restrict investment in the agribusiness area.[1] The Gambia's liberal exchange rate regime favours foreign investors as there are no restrictions on the mobility of capital. The Development Act of 1988 targets the agricultural, tourism, manufacturing and mining sectors as areas where investments would be eligible for tax credits if the business meets the goals of value-added, employment promotion, foreign exchange generation, and industrial decentralisation. Further advantages to private investment are the stable political and legal climates.

Further measures to promote foreign investment in The Gambia have also been listed in Section 3.5.2.

The privatisation of GPMB's core groundnut activities does not only depend on the GOTG policies towards foreign investment and the general economic climate of the country but also on internal circumstances within GPMB. Such internal circumstances cover management and staff, tangible assets such as buildings and machinery, current trading position and other intangible considerations such as reputation and performance in the market place.

It is clearly evident from the various sections of this report that there are massive problems with the groundnut processing facilities owned by GPMB and their true value is far below the Dalasi 198 million evaluation of November 1989. An estimated present worth of GPMB groundnut processing facilities would be approximately Dalasi 31.4 million. GPMB's subsidiary The Gambia River Transport Company is for all intents and purposes insolvent and worth very little in terms of present assets.

---

1 For a more detailed review of issues related to the investment climate in The Gambia see the following US AID reports: "Investment Approval Processes in the Gambia", July 1990, Nathan Associates; "Assessment of the Legal and Regulatory Environment Affecting the Gambian Financial Sector", April 1990, Consult International Inc.

The proposed technical assistance outlined in this report would be charged with the task of making a realistic evaluation of the true sales value of GPMB's groundnut processing facilities, transport and other tangible assets. Of similar importance will be an evaluation of the staff employed at processing level. Management will be judged on their ability to operate GPMB on a commercial footing. The reputation of GPMB in the market place is low and there is a need for management at GPMB to re-establish market confidence.

The present oil mill site at Denton Bridge is being slowly eaten up by the sea and given that the mill is both old and extremely inefficient a new mill on a new site would be the logical answer to the situation. This new venture would utilise the items of oil milling machinery outlined in Section 2.4.6 and purchase new equipment where required.

The existing site upon which Denton Bridge decorticating plant stands (over the road) could be utilised for a new oil mill and the present site sold after demolition of the old plant.

In terms of the final disposal of GPMB's groundnut processing and marketing assets a three-party joint-venture investment (Gambian private sector firm or consortium of private groundnut traders, the GOTG and an off-shore firm) could offer several advantages.

- add technical and market strength via the off-shore firm;
- provide access to external finance;
- capitalise on local knowledge and expertise;
- GOTG presence providing a degree of political insurance;
- politically palatable in that GOTG presence could assuage fears that local private sector and/or foreign ownership would be to the disadvantage of Gambian interests.

Invitation to interested parties would have to be made once the 1990/91 processing season was finished and the evaluation of the TA specialists complete and readily available to interested parties. A suggested likely split may be along the lines

Off-shore	60%
Local partners	30%
GOTG	10%

4.5 DECORTICATION BY THE PRIVATE SECTOR

The issues concerning the use of the present decorticating facilities of GPMB by the private sector have been discussed in other sections of the report. This section deals primarily with the opportunities for the private sector to establish new decorticating facilities within The Gambia.

For the 1990/91 marketing season, it would be unrealistic to expect the installation of any significant capacity of decorticating facilities by the private sector and any major decortication of groundnuts would have to be carried out using GPMB machinery. Whether GPMB facilities are actually used depends to a great extent on the processing costs charged and the presence of TA specialists.

In the longer-term private sector involvement in decortication is a necessity to the eventual success of the liberalisation of The Gambian groundnut industry.

To date GCU and a number of other private traders have already brought small decorticating machinery (125 kg/hour) into The Gambia on a trial basis. The type of decorticating machinery that could be used by the private sector in future would depend to a great degree on the strategy employed for decortication.

With much emphasis being placed on the privatisation of GPMB, which will have the maximum capacity to decorticate 1,200 MT of groundnuts per day (if the rehabilitation recommendations are carried out), investment in large scale decortication facilities serve little purpose as there will be sufficient capacity to process The Gambia's entire crop within GPMB in 2½-3 months (allowing slippage for stoppages etc). With the participation of private sector traders in the ownership and control of the new company formed from privatising GPMB their interests can be protected from areas of conflict, such as unfair processing costs.

The consultants believe the purchasing of decorticating facilities by the private sector would at this stage serve little purpose. The facilities already exist within The Gambia and the privatisation of GPMB offers the best opportunity for private sector traders to become involved in decortication. Any attempt by the private sector to decorticate in large quantities should be held off until the process of privatising GPMB is complete and the private sector's position evaluated. Given the lack of investment funds and high interest charges for borrowing at present large investments are considered unwise. Furthermore, economies of scale dictate that participation in a single, large processing operation would be more economic for private traders than for scattered smaller scale independent plants to be installed.

One final note, a private buyer has booked two container loads totalling 37-40 tons of decorticated nuts to a factory in Denmark for January shipment. This is obviously a trial consignment, decorticated with small machines and not involving GPMB. The progress of this venture will be watched closely by private sector business and if successful will sound a warning to GPMB of the problems they could face.

APPENDIX 1

MISSION SCHEDULE

CARGILL TECHNICAL SERVICES

GPMB - PRIVATISATION MISSION

COMPLETED SCHEDULE

Monday 5th November	-	Arrival Banjul
Tuesday 6th November		
a.m.	-	Meeting U.S.A.I.D. and N.I.B.
p.m.	-	Team worked out work schedule and arranged meetings.
Wednesday 7th November		
a.m.	-	GCU meeting. M.M. Dibba
	-	Agricultural Produce Marketing Company Ltd. K.M.A. Jallow.
p.m.	-	N.I.B.
Thursday 8th November		
a.m.	-	U.S.A.I.D.
	-	N.I.B./GPMB Meeting and Tour of Denton Bridge Mill.
p.m.	-	GPMB - Colin Sayers in Mill.
	-	GH/AJ, ~~Finance Director~~
Friday 9th November		
a.m.	-	Ousman Bah
	-	Gambia Agro-Products Marketing Corporation Mr. M.A. Jammeh
	-	Jackson and Sayers denied access to the Mill at Denton Bridge and GPMB resigned to give any further information.
Saturday 10th and Sunday 11th November		
	-	Could not get into mill or access to GPMB. Report discussion and writing.

Monday 12th November

	-	Colin Sayers up to Kaur
a.m.	-	Brendan Walsh, Ministry of Finance
p.m.	-	Livestock Marketing Board, Mr. Jobe

Tuesday 13th November

a.m.	-	GCU
p.m.	-	Colin Sayers at GPMB Oil Mill
	-	U.S.A.I.D.

Wednesday 14th November

a.m.	-	Colin Sayers, Oil Mill
	-	GPMB Operations Director
	-	GPMB Financial Director
p.m.	-	Work on GPMB information
	-	Meeting with representatives from Gambia Agro-products Marketing Corporation.

Thursday 15th November

a.m.	-	Gambia River Transport Company Ministry of Agriculture - Planning Unit
	-	Colin Sayers - Oil Mill
	-	GPMB Financial Director
p.m.	-	Drafting end of Mission report

Friday 16th November

a.m.	-	Central Bank, Mr. Fillingham
	-	GPMB, Managing Director
p.m.	-	End of Mission meeting.

DEPART GAMBIA

APPENDIX 2

SCOPE OF WORK

ATTACHMENT NUMBER 1

SCOPE OF WORK
GPMB PRIVATIZATION - FY1990

1. Objective: The purpose of this activity is to assist the Government of the Gambia (GOTG) in furthering the privatization of the Gambia Produce Marketing Board (GPMB).

2. Background: As a result of discussion with the National Investment Board (NIB) of the GOTG, USAID/Banjul has been requested to assist the NIB in the process of privatizing the GPMB. The NIB is the GOTG agency responsible for monitoring the compliance of various parastatals - including the GPMB - with the terms of their respective performance contracts with the GOTG. The NIB is also responsible for implementing the privatization policies of the GOTG. A general plan and schedule for the privatization of the GPMB was approved by the GOTG in late April 1990. The plan and schedule are (briefly) as follows:

- For the 1990/91 groundnut season (roughly November 1990 to March 1991), the GPMB will own and operate all groundnut processing facilities presently under its control. The GPMB will be required to process all privately-owned groundnuts of a certain minimum quantity into decorticated nuts or into oil, for a per-ton fee. The NIB is responsible for setting the fees for decorticating nuts and for processing nuts into oil.
- Any party will be able to export groundnuts or groundnut products.
- Private traders will be encouraged to establish their own decorticating facilities. It is expected that such facilities would be small.
- Prior to the 1991/92 season, the groundnut processing facilities of the GPMB will be offered for sale. The GOTG's objective is to fully privatize the GPMB by the beginning of the 1992/93 season.

Since the GPMB is, inter alia, the central processing and marketing organization for groundnuts, The Gambia's chief domestic export, great care must be exercised to assure that the privatization of the GPMB is carried out with careful attention paid to avoidance of possible creation of a de facto private monopoly (replacing the present public monopoly).

3. Statement of Work:

A. The contractor will provide necessary technical advice to further the privatization of the GPMB, in context of the plan and schedule noted above. Specifically, the contractor will advise the NIB:

- i. On the optimal per-ton fees to be charged by GPMB for decortication and for processing into oil.

45

- ii. On rules of access for non-GPMB associated owners requesting GPMB to process their groundnuts. X
- iii. Evaluate the present performance contract between the GPMB and the GOTG in light of recommendations made persuant to items (i) and (ii) above, and recommend modifications as appropriate. In particular, the contractor will consider the question of possible rewards and sanctions against GPMB for performance or non-performance.
- iv. Recommend next steps in the divestment of the major assets of the GPMB. X

:. The technical advisor(s) will evaluate with particular care:

- i. A possible role for GPMB as a purchasor of last resort directly from producers, under a support price arrangement and/or as a providor of short-term credit to producers.
- ii. Trade-offs between export of decorticated groundnuts and export of groundnut oil.
- iii. Measures which might be taken by the NIB to promote private sector processing of groundnuts and/or groundnut products during the 1990/91 season.

. The technical advisor(s) will operate under the direction of the IB and report all findings and make all recommendations to the hief Executive of the NIB.

. The technical advisor(s) will develop recommendations solely for he purpose of furthering the ultimate objective of privatization of he GPMB.

. The technical advisor(s) will, upon arrival in The Gambia, evelop a specific plan of work and recommend any other authorities eemed necessary to carry out the scope of work.

. The technical advisor(s) will maintain liason with USAID/Banjul ith respect to progress under the scope of work.

. Special authorities: The technical advisor(s) is/are authorized › procure advisory services and short-term studies from local idividuals and/or firms as he/they see fit, upon consultation with ie NIB and USAID. Funds for such services shall not exceed ›,000.00.

ie technical advisor(s) will be afforded by the NIB complete access › all plans, documents and other data necessary to analyze current erations and financial management. He/they will be advised by the B of all management and operational decisions pertinent to iplementation of the scope of work.

BEST AVAILABLE COPY

4. Expertise Required:

The technical advisor(s) shall have exceptional skills and private sector experience in groundnut processing, transport and marketing. Experience in management of decorticating and/or oil rendering facilities is desirable.

5. Level of Effort:

It is estimated that the total level of effort will be eight weeks at six days per week worked. Provision is made in the budget for two persons working four weeks each, but the contractor may, at his option, provide the services of one highly qualified expert for eight weeks. No disaggregation of the scope of work is attempted in specifying the level of effort. USAID/Banjul believes that each step in the scope of work is integral to the others.

APPENDIX 3

TECHNICAL ASSISTANCE PROPOSALS

TECHNICAL ASSISTANCE PROPOSAL

PLANT MAINTENANCE AND LAYOUT ALTERATIONS

1.0 AIMS AND OBJECTIVES

1.1 The aim concentrates on the immediate technical assistance requirements to ensure as far as is practically possible in the time schedule available before the commencement of the new processing season, tentatively fixed for 15 January 1991, that the processing equipment at Kaur and Denton Bridge Decortication units be overhauled to a level acceptable for private sector and GPMB use. That in addition to this maintenance work, the alterations necessary to ensure that Kaur can simultaneously process for the private and public sectors without any risk of cross-mixing of individually owned seeds are carried out. Dependant upon GOTG agreement to proposals contained in the "Aide Memoire" paras 1.4 - 1.5 and 1.6 it may be possible to also cover some of this work.

1.2 Objective is to promote and facilitate private sector usage of GPMB assets with the view to increase value added to the product and to assist in the promotion of the assets disposal at a realistic price by demonstrating machinery reliability and product outturn quality.

2.0 TERMS OF REFERENCE

2.1 The expert should have realistic executive authority to carry out the necessary work to implement the Aims and Objectives.

2.2 In addition to supervising maintenance work the expert will also prepare a list of additional engineering spares felt necessary for the 1990/91 processing year.

2.3 The expert will prepare a weekly progress report to be submitted to the appointed line Ministry.

2.4 The expert will work in close relationship with the appointed counterparts and will agree, or otherwise, their suitability with Line Ministry before confirmation of their respective appointments.

2.5 The expert will be responsible for the initial trial production runs prior to certifying the fitness of equipment.

2.6 The expert will prepare hand over notes for the proposed processing TA team. The period of hand over is anticipated to be not less than 10 days.

3.0 PROJECT DURATION AND MANPOWER

3.1 The duration will be for a period of 2 months including hand over discussions.

3.2 It is believed that one expert will be sufficient.

4.0 CLIENT'S RESPONSIBILITIES

4.1 The client will be responsible for the supply of reliable local transport, associated costs and a driver for the expert.

4.2 During time spent at Kaur the client will be responsible to provide reasonably acceptable ex-patriate living accommodation with all necessary services.

4.3 Accommodation in Banjul could be sourced from any number of available hotels of suitable standard. Rented accommodation could be used in lieu of a continuation of TA presence in Banjul with the second longer-term inputs.

4.4 The client is responsible for all immigration arrangements.

4.5 The client will provide medical consultations and any necessary drugs prescribed in the event of sudden illness or accident.

4.6 The client agrees to indemnify the expert against legal (Civil or criminal) proceedings which may arise in the direct course of the TOR. This excludes theft, fraud etc.

4.7 The client will ensure an adequate supply of engineering tools.

5.0 TA COSTS

Typical costs for TA could be;

	$
Air travel and terminal transfers LDN-BJL-LDN	3,200
Fees (2 months @ £6,500/month)	25,350
DSA's 60 days @ $183/day (US AID rate)	10,980
*Project Management UK (2 days per month @ £250/day)	1,950
TOTAL	41,480

(* This includes the general administration costs involved)

$ conversion for fees are based on current exchange rate of $1.95:£1 and dollar fee costs will vary with exchange rate movements.

TECHNICAL ASSISTANCE PROPOSAL

DECORTICATION PLANT ASSISTANCE

1.0 AIMS AND OBJECTIVES

1.1 To provide a technical management service to the GPMB and to promote private sector usage of the decortication facilities owned and operated by GPMB at Kaur and Denton Bridge (Banjul). This services is to be considered as a short-term solution for the 1990/91 season only, but will also provide the information gathering system to assist the GOTG to finalise the procedures for the privatisation of GPMB's groundnut processing activities scheduled for 1991/92.

1.2 The main objectives of the TA are to viably process this season's crop procured by the GPMB and the private sector, to maximise the potential usage of installed capacity at both locations thereby establishing private sector confidence through producing export FAQ standards within the time frame guaranteed in the Decortication contract.

2.0 TERMS OF REFERENCE

2.1 The experts engaged will be responsible for accepting and acknowledging access applications submitted from the private sector. To plan production schedules to meet with the applications having due regard to the requirements of the GPMB.

2.2 The experts will assess each application and prepare a suitable commencement date which will be hand delivered to the Operations Director, GPMB, for formal approval. A copy of this document will be given to the Line Ministry responsible.

2.3 Should GPMB fail within three (3) days to confirm the experts recommendations or to enter into a contract with the private sector applicant, the expert will have the executive authority to accept the applicant's nuts rather than to allow a non productive situation to arise.

2.4 Should the situation described in (2.3) above arise the expert will notify both the Line Ministry responsible and GPMB of the action taken as soon as is practically possible after the expiry of the three day period.

2.5 The experts will devise and submit to GPMB and the Line Ministry, prior to the commencement of this season's processing, a quantity and quality control procedure to meet the guarantees given in the Decortication Contract between GPMB and an individual of the private sector. Such a control procedure could be prepared within ten (10) days of the experts arrival in the Gambia.

2.6 The experts will act on behalf of GPMB at unit level to authorise the correctness of delivered weights of shell nuts and the out-turn weights of Decorticated nuts.

2.7 The experts will produce weekly statements of production throughputs, yields, downtime and any other relevant information required by GPMB and/or the Line Ministry.

2.8 The experts will devise training schedules for their respective counterparts with the aim of ensuring their fitness to assume operational proficiency after the completion of the TA, and subsequent privatisation of GPMB.

2.9 The experts opinion will be sought as to the suitability of the counterparts selected and will be free to question any appointment on the grounds of insufficient technical background of the counterparts.

2.10 The experts will carefully monitor the performance of machinery and human resources throughout the period of the TA and will submit their findings and recommendations to GPMB and the Line Ministry at the end of the season. These findings will be made available to interested parties involved in privatisation.

2.11 The experts will prepare a list of machinery spare parts required for the 1991/92 season and a schedule of maintenance work to be completed prior to next season.

2.12 The experts will prepare an estimate of the realistic value of the assets of GPMB (Processing, civil works, personnel and other factors).

3.0 PROJECT DURATION AND MANPOWER

3.1 The total expected duration of the TA project will be 12 man months.

3.2 Two experts will be required for six months each and given the more extreme working conditions at Kaur some rota system between the two experts could be worked out.

3.3 The stated time schedule will be variable depending on the time taken to process the total crop and complete training/hand-over arrangements.

4.0 CLIENT'S RESPONSIBILITIES

4.1 The client will be responsible for the supply of reliable local transport and drivers for the experts.

4.2 During time spent at Kaur the client will be responsible to provide reasonably acceptable ex-patriate living accommodation with all necessary services.

4.3 Accommodation in Banjul could be sources from any number of available hotels of suitable standard but rented accommodation could be used as a continuation of TA presence in Banjul with the initial maintenance TA specialist.

4.4 The client is responsible for all immigration arrangements.

4.5 The client will provide medical consultations and any necessary drugs prescribed in the event of sudden illness or accident.

4.6 The client agrees to indemnify the experts against legal (Civil or criminal) proceedings which may arise in the direct course of the TOR. This excludes theft, fraud etc.

4.7 The client will ensure an adequate supply of engineering tools.

5.0 **TA COST SCHEDULE**

Typical costs for TA could be:

	$
Air travel and terminal transfers LDN-BJL-LDN (x2)	6,400
Fees 12 months @ £6,500/month)	152,100
DSA's 360 days @ $183/day (US AID rate)	65,880
*Project Management UK (4 days per month @ £250/day)	23,400
TOTAL	247,780

(* This includes the general administration costs involved)

$ conversion for fees are based on current exchange rate of $1.95:£1 and dollar fee costs will vary with exchange rate movements.

6.0 **PROCUREMENT**

6.1 Sourcing and supply of spare parts, machinery, vehicles for both long and short-term assignments can be provided by Cargill Procurement Services (CPS).

6.2 CPS would ensure that goods would be made available at manufacturers' list prices, while ensuring preferential delivery schedules.

SPECIAL NOTE

If funding is provided by the World Bank the TOR should also contain reference to the safe environmental disposal of ground nut shells not used for the firing of the boilers at Denton Bridge. This could be to explore the production of shells as fuel brickettes or to grind the shells into a powder form to mix with the oil foots produced at the oil mill which would improve expeller efficiency.

APPENDIX 4

GUIDELINES FOR PROCESSING ACCESS FOR DECORTICATION

Suggested format for Applying to GPMB for Decortication Access

We, (name of company) hereby apply to GPMB for processing access to (name of unit - Denton Bridge or Kaur) to process _____ tons of whole groundnuts.

We would intend delivering nuts to your factory gates in bags/bulk and to fulfill our contractual obligations would request a processing commencement date on _______.

Receipted acknowledgement of this application is requested to be given to our agent on presentation of this letter.

Notes:

1. The letter should be hand delivered to either the Operations Manager of the GPMB, or in the case of TA approval, to the experts responsible.

2. The GPMB or TA expert should issue a formal receipt of acknowledgement to the applicant.

3. Within a period of 3 days, GPMB should communicate in writing to the applicant confirming his requested date and tonnage or offering as near as possible alternative options.

4. In the event of no communications from GPMB within the time scope indicated in (3) above the applicant has the right of access to NIB whose decision will be binding on both parties.

5. Final recourse would be Civil Litigation initiated by the applicant.

DECORTICATION CONTRACT

1. The GPMB (hereinafter called the Processor) enters freely into a contract with (Name of Party) (hereinafter called the Client) to undertake the processing of__________ tons of undecorticated groundnuts.

2. The nut quality will conform to grade A averagely with no more than 5% of the total consignment being poorer than grade C. The Processor reserves the right in the case of quality dispute to refer the matter to a mutually agreed arbitrator whose decision will be binding on both parties.

3. The quantity of foreign bodies (stones, twigs, etc.) will not exceed 2% of the total contracted nut quantity. In the event of dispute the procedure in 2 above will apply in full content.

4. The contract processing price will be based on actual weighed and recorded bag weights at time of delivery. The Client is responsible to ensure his/her own agent signs and receives a copy of the Processor's weigh bridge ticket and goods received note. In the event that the Client fails to conform with this agreement he will accept the printed weigh bridge ticket issued by the Processor as correct and by appending his signature to this contract (below) and by initialing this paragraph waives all and any claim against the Processor for invalid weighing.

5. The Client is wholly responsible to deliver a minimum daily tonnage of __________ (words) to the factory gate to satisfy on hourly processing rate of __________ tons (words). Failure to ensure this proviso will render the client liable to compensate the Processor for non-productive time losses based either on an hourly or tonnage rate which ever is the higher cost incurred by the Processor.

6. Failure on the Client's part (or his agent or transporter) to perform on pre-agreed tonnage deliveries over a 2 day period, the Processor has the unequivocable right to assume a breach of contract situation exists and therefore the Processor reserves the right to accept other third party contracts or to resume processing his own materials and/or put the machinery under maintenance. In this event, the client will be held liable to reimburse the Processor a maximum of 2 days tonnage processing fees.

7. The processor undertakes to guarantee minimum yield deliveries of decorticated nuts amounting to 68% of the primary cleaned unshelled nut weight. The content of shell fibre is guaranteed not to exceed 0.5% unless the client instructs for a higher percentage point. Such instruction to be attached to this contract.

8. The processor guarantees to commence the contract undertaking on the "<u>date</u>" and further guarantees completion on the "<u>date</u>". Any incurred delays in completing the contract on the prescribed terms and date and not previously detailed in the aforegoing paragraphs will be the total responsibility of the Processor who will accept any and all claims made by the Client supported with all relevant copies of third party contractual obligations. In the event of a dispute between the two parties the arbitration recourse mentioned earlier in Paragraph 2 will apply.

9. All contributing conditions leading to a "Force Majeur" situation as prescribed for in International Law will be binding on both parties to this document.

10. Material ownership will at all times rest with the client, however, and notwithstanding this acknowledgement, the processor reserves the right of lien to the material until all agreed processing fees have been fully paid by the client excluding the 10% retention mentioned in Paragraph 14.

11. The Processor will indemnify the client's material while in the Processors keeping through insurance placed with a reputable firm or broker of the client's choice. Such cover and specific detail has been discussed and agreed between Processor and Client and the attached schedule forms part of the whole Contract. The insurance premium is contained within the processing cost.

12. The processing toll cost is hereby agreed at the rate of D__ ______ per ton and the attached and signed cost schedule by both parties forms part of the whole contract herewith.

13. The toll charge will be paid in full and in advance to a reputable banking institute who will act as fund trustees, any charges being added for this services to be equally shared. In the event of any arbitration findings being apportioned to one party, he will be severally liable for the other party's bank charge liabilities.

14. The Processor has the given right to draw down 30% of the contracted fee, less bank charge fees, upon commencement of contract implementation. All other payments will be approved jointly depending on contract progress up to 90% of the total contract value.

15. A retention of 10% of the agreed fee will be held by the Bank on deposit until the Client's shipment has been accepted by his buyer. Any dispute will in the event of none agreement by the Processor and the Client be referred to independent arbitration whose decision will be final. All retention sums and interest accruing therefrom will in normal course be paid to the Processor.

16. The witheld retention fee and accrued interest will automatically be disbursed by the Bank to the processor no later than 45 days after the completion of the contract providing no impending quality claim has been notified in writing to the Bank and the Process or by either the Client or his appointed agent.

APPENDIX 5

DECORTICATION FEE ESTIMATE

DECORTICATION TOLL CHARGES
(Cost Per Ton)

	Dalasi
Weighing and offloading	2.12
Primary cleaning	2.25
Labor and welfare/social security costs	16.00
Electricity	20.00
Process plant rental	88.75
Bagging and stacking decorticated nuts	3.60
Despatch loading and weighing	2.12
	134.84
Benefit to GPMB @ 16.5%	22.25
Cost Per Ton	157.09

ASSUMPTIONS

1. Shellnuts will be delivered in bags.

2. Surplus bags remain property of private party.

3. Electricity costs based on GPMB generation with fuel oil costs at D4/Litre.

4. Plant rental covers invested capital depreciation and maintenance costs.

5. Benefit to GPMB is profit and should cover overheads etc.

6. Insurance against material damage during work in progress and after storage has not been included as premium rates not known to Mission. This cost would be to private sector's account.

7. Additional derived benefit to GPMB would arise at Denton Bridge as shells would be used to fire the boilers whose export steam drives the turbine to produce electricity. 2 tons of shells drive the turbine for 1Hr. = D800.

8. A small profit would derive at Kaur who sell some shells to a local Belgium company who turn them into fuel brickettes.

9. The processing toll cost assumes no usage of GPMB storage and transport facilities.