Economic Adjustment and Long-Term Development In Uganda

A report by the Uganda Economic Study Team.

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By

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INTRODUCTION

This is the second Volume of the Study on the Uganda Economy. It contains sectoral papers to highlight some of the issues and conclusions arrived at in Volume I which concentrated on macroeconomic aspects.

The sectoral papers presented here cover Agriculture; Industry; Mining; Energy; Transport and Communications; Banking and Financial Institutions; Health, Water and Nutrition; Education; and Housing. A wide rage of papers were prepared for the team by consultants and team members. They were discussed and the team felt that presenting some of them in this volume would assist in understanding the issues and conclusions of Volume I. A total of 25 position papers and reports were prepared for the team. Those not included in this Volume were presented separately to government for information.

AGRICULTURE

1. OVERALL OBJECTIVES AND DEVELOPMENT STRATEGY

1. In the short-term the three year period 1986/87-88/89, agriculture's primary contribution to rehabilitation and reconstruction goals must take the form of achieving rapid increases in production and in sales and official marketing channels, contributing especially to net foreign exchange earnings (by both export and import substitution) and to government revenues;

2. In the medium and longer terms, the objective will be to utilise more fully the land and water resources in the rural areas of Uganda through the application of appropriate technology and institutions which are participatory and as far as possible self-determining, so as to:

   (i) Raise the real incomes of the rural population;

   (ii) contribute to overall economic development through the provision of foreign exchange, food and raw material to the urban sector, thus providing a growing market for domestic Industry, and contributing to savings, investment and to government revenue;

   (iii) Contribute to the diversification and stability of the national economy;

   (iv) Help to reduce and eliminate absolute poverty by meeting basic needs for food, household, energy supplies and cash income;

   (v) Productively absorb the larger proportion of the rising numbers of new entrants to the labour force as a result of continuing overall growth of the population;

(vi) Reduce the incidence and severity of environmental degradation consuming the natural resource base while using it more intensively;

(vii) Reduce disparities in levels of consumption of private and public goods and services families and individuals both within the rural sector and between the rural and the urban populations.

3. On the basis of the demonstrated resilien of the small-scale or peasant mode of production in the face of economic instability and the stoc present capacity for adopting appropriate innova and advancing significant productivity gains, it would seem most logical for primary emphasis to be placed on utilising these strengths still further. In particular, improvement and unimoda (rather than transformation and bimodal) approac to the primary production processes should be followed. At the same time, however, opportunit to exploit internal economies of scale in processing, and input delivery e.g. via out grow schemes should be seized. Thus increasing rural productivity requires closer integration with th natural economy, especially through improvements in transport, marketing and the provision of finance increasing the value - added to primary commodities through small-scale industries and exploiting external economies between different activities through integrated land use planning and the spatial location of services would be other valuable elements. Also, enhancing the level and effectiveness of educational and heal services and domestic water supplies available t the rural population is also needed.

Given the variations in natural, social and needed economic conditions sound in Uganda's rural areas, the accurate design and effective implementation of these components can be best achieved through a relatively decentralised approach rather than through attempting to improve a single blue print from above. These elements - self-sustaining improvements in land and labour productivity, reductions in absolute and relative poverty, integrated multi-sectional investment programmes and decentralised, participatory decision-making processes are the essential components of a rural development strategy.

At Uganda's present stage of economic development and with its resource availabilities, an agriculture-led rural development strategy is recommended as the most promising basis for the future development of the country.

5. In moving from the short-term rehabilitation period to the long-term rural development strategy, improvements in the total value of agricultural output should allow producers to retain a larger share of unit revenue, increased domestic value added being generated by both primary products and a broader spread of activities and services located in the rural sector. The possible conflicts between the necessary direction required in the short-run and the long-run goals should be recognised from the outset so that transitional measures are scheduled to be phased in as the progress with reconstruction permits. These should include the replacement of (or reduction in) export duties by other sources of tax revenue, investment in rural service centres and improvements in rural health, water and primary

education.

2. MACRO-ECONOMIC ASPECTS OF AGRICULTURAL SECTOR PERFORMANCE

6. The coffee sector has come to dominate Uganda's economy, generating between 90 and 98 percent of foreign exchange and between 40 and 70 percent of Government revenue in vario recent years. This dominance has come about not through the growth of coffee output but with the decline of other activi especially cotton, tea and minerals - and reductions in both potential taxable capacity and tax actually collected on imports and sales of domestic industrial products. Indeed, not only has coffee production stagnated but sizeable leakag is known to occur into the parallel economy (the Magendo market). These diversions further reduce (a) the supply of foreign exchange available for utilisation in public sect agencies, and (b) Government tax revenue.

7. The causes of this situation are well-known and require no elaboration here. In general, the combination of external economic shocks and internal mismanagement and insecurity since 1973/74 have resulted in gross distortion of the macro-economic framework within which the agricultural sect including coffee production, operates. The agricultural se itself dominates the generation of personal incomes and employment (mainly self-employment on family farms). Over 9 percent of the population is dependent on the agricultural sector for their livelihoods, Uganda typifying an agrarian-based economy. While the quality of macro-economi decisions can severely constrain agricultural performance, performance of agriculture and, in the short-run, that of t coffee sector in particular will closely constrain the performance of the economy as a whole. The normal form of micro-economic analysis of a crop activity, therefore, does not provide adequate insights into this situation.

and Marketing Cooperatives has been only partially funded to date (PA-01; $2.88m out of $4.32m is not yet secured). Work is commencing in farm management economics, but further assistance is urgently required to strengthen:

- project identification and preparation capacity
- monitoring and ongoing evaluation procedures
- management information systems, integrated across the three main ministries initially, but eventually incorporating the boards and parastatals, as well as major private sector bodies, responsible for the performance of the multi-faceted agricultural sector.

18. It is recommended that approaches to potential donors to secure this assistance should be initiated immediately.

19. At the level of agricultural policy, a large number of key issues have accumulated which require informed decisions. The Agricultural Policy Committee, which is serviced by the Agricultural Secretariat of the Bank of Uganda, should be revived with immediate effect to construct an agenda and timetable for commissioned studies, performance indicators, policy analyses and decisions.

20. In conditions of rapid inflation, the key administered commodity prices should be index-linked if they are not to have reverse consequences from those intended. As the crop price must be set alongside changes in consumer prices in the rural areas, a set of rural consumer price indices should be constructed and maintained as soon as possible (a new TA project may be needed for this). The crop price changes should be incorporated in quarterly price and economic policy reviews at least until inflation rates have fallen to the region of 25 percent and below. This frequency interval will allow the analysis of monthly indicators of key crop sales and macroeconomic variables to adjust the price signals fairly accurately.

6. URGENT AGRICULTURAL POLICY ISSUES AND RECOMMENDED ACTIONS

6.1 DIVERSIFICATION OF AGRICULTURAL EXPORTS

21. A bank of Uganda task-force is examining agricultural diversification possibilities.

(i) Several of these identified inset are already the object of identified investment projects (cereals, oilseeds, cocoa, hides and skins, and honey).

(ii) Among others which are not projectised; the call is made for research. In the case of many high value vegetables and spices,(french beans, okara, capsium chillies, ginger, furmeric)
however, there is substantial experience of producing these crops on a commercial basis - The need is not for research but for the identification of sites, markets, commercial backers and technical production know how. Some of these projects are covered in project AG-36; the rest should also be tackled within it.

(iii) Some of the less perishable crops lend themselves to outgrower scheme arrangements, with nucleus estates ensuring that the input delivery and marketing/transpo economies of scale are provided. The ownership of co estates should be resolved as rapidly as possible, as some of these could be utilised for this purpose.

(iv) Rice is imported at present, but it appears that output could be increased to match consumption at 26,000 tons by 1990. The traditional technique is to oxplough and broadcast upland rice. A Chinese project has introduced irrigated paddy technique; this is high-yielding but needs high management and labour-int The simpler and more appropriate techniques of small-s irrigation and swamp drawing/flooding upland rice shou be subjected to rapid field trials. This seems especi appropriate for some of the densely populated,

medium-fertility areas in the Eastern and Northern parts of Uganda. Other cereal and vegetable crops could also benefit from such a low-cost approach to irrigated agriculture for example, wheat and barley could be produced on small-scale irrigated basis on the Punjab model. The design of projects AG-07 and AG-35 should be cross-checked and reappraised in the light of comments.

6.2 INPUT DELIVERY' FINANCE AND PUBLIC AGENCIES

22. A large number of public sector investment projects are concerned with obtaining agricultural inputs and delivering them to farmers via government - to - government channels. Where these are f r more financially profitable activities, especially when medium and large-scale enterprises are involved, it seems more appropriate for commercial channels to provide inputs, advice (and trainning if needed) and credit for these (as long as reasonable foreign exchange allocations are given). This observation applies to AG-16 beef ranches, AG-17 poultry, AG-18 pigs, AG-15 fishing inputs and AG-48 Mechanised Fishing Techniques.

23. A proposal is under active consideration in the Bank of Uganda and the Ministry of Marketing and Cooperatives to set up a special farm credit agency, - the Uganda Agricutural Finance Agency (project AG-53) The experience with farm credit schemes in most African countries is not very favourable. High default rates and capture of funds by the more powerful farmers (especially if a negative real rate of interest applies) are common place. We would recommend priority attention is given to (i) channelling credit for poorer farmers through the Cooperative Bank, Unions and primary societies, and (ii) channelling inputs and where necessary, production credit on a commodity specific basis either vertical links with the agro-industrial processing and manufacturing firms or through horizontal linkages from nucleus estates to outgrowers.

The proposal for the establishment of the UAFA is unclear about interest rate and savings mobilisation policies. It also refers to lending for agro-service centres and other ru infra-structure, presumably either property for commercial rent or community assets best financed by government grants and/or self-help. It is recommended that the UAFA, when and it is established, concentrate entirely on production and closely associated investments in primary processing only.

24. In the course of research and initial pilot schemes, several government departments have become quite heavily engaged in commercial production activities. Thus, project AG-05 conce the manufacture of small farm equipment, AG-16 refers to twc departmental commercial ranches, AG-13 proposes the develop of five departmental dairy farms, AG-29 refers to departmer apiaries, AG-46 to large-scale commercial fish-farming, inclu crayfish exports, and AG-58 proposes to set up a quasi-com fish marketing and poultry input delivery service to fishi villages. Presumably these are either unit enterprises or proposals in government departments with access to land, ca and production expertise. The Livestock Sector Task -forc set up by the Bank of Uganda is already addressing itself t the question of what are the essential services upon which departments should concentrate their attention. This enqui should be extended across the agricultural sector, broadly with a view to the divestment of commercial enterprises to parastatal, cooperative or private sectors. This is recom both because they tend to detract attention from more funda services which only the government can provide and, often, because they have been run primarily for the private benefi the government officers and/or employees.

25. The World Bank's 1984 Agricultural Sector Report recommen the transfer of the Dairy Corporations' functions to the cooperative and private sectors certainly. The corporation to be ineffective in competing for dairy farmers ' milk wh having to sell at retail prices fixed at levels below the rate. Its remaining function is to sell reconstituted milk

imported milk powder and edible vegetable oil. Attempts by government to operate a detailed price controls for whole milk have failed, but the provision of reconstituted milk appears to have been a sound form of intervention restraining price increases via the supply side. Orienting this supply (nutritionally identical to whole milk for all except infants) to lower income groups at a price discount, and standing to compete in the whole milk market when margins are tending to widen i.e. providing potential competition in a free market, might justify the Dairy Corporations continuing existence. A small market study should be made as soon as possible to assess these possibilities.

6.3 TRANSPORT CONSTRAINTS ON MARKET SURPLUS

26. A number of transport project proposals are oriented towards vehicle repair and improving rural feeder roads and other links. These are:

AG-19 UCTU workshops

TR-16 rural feeder road maintenance units.

TR-33 Rehabilitation of ferries

TR-34 construction and repair of bridges. In specific instances these gaps or bottlenecks in the transport system may cause significant reductions in marketed surplus, in addition to hardship to the local population e.g. ferry links to the Sesse and Buvuma Islands. In these cases higher priority may be warranted for remedial action than is given to the overall project within the transport sector plan. It is recommended that public agricutural production and marketing agencies take effective action to draw the attention of the Ministry of Transport to such instances, so that consideration can be given to incorporating them in an early scaled down phase of union project, or under the emergency relief programme.

7. SHORT-TERM AGRICUTURAL POLICY ISSUES AND RECOMMENDATIONS

7.1 ENVIRONMENTAL CONSERVATION' FORESTRY AND AGRO-FORESTRY

28. With increasing population pressure on the resource base in most parts of the country, the incidence of environme degradation - soil erosion, deforestration and increasing river regime instability - is being encountered more frequen At the same time, shortages of fuel wood supplies are beginn to occur locally. The use of plywood conservation measures bunds, terraces and diforestation - is traditionally advocat as is the planting of village or homestead fuelwood plots. Recent experience, however has stressed the importance of integrating trees into mith-storey cropping systems (as well vice -versa on forested land) in order to raise both product conservation at the same time. Closer coordination of agro forestry into forest projects (AG-26,AG-44 and AG-45) is recommended.

7.2 HIGH LEVEL MANPOWER PLANNING AND DEPLOYMENT

Also closer coordination and an agreed division of labour between the Forest Department and the Ministry of Environme activity in rural energy supplies seems to be indicated. F AG-43 pulp and paper plantations, should be reappraised in l light of land use realistic estimates of pap demand and possibilities for advantageous specialisation a exchange between Uganda and Tanzania in this area.

29. The current practice is to gurantee employment in the publi service to the large annual intakes to the agricultural sec university faculties , institutes, colleges and schools. I many cases, with increasingly scarce non-salary recurrent expenditure, this results only in visible unemployment in t relevant departments (if at low remumeration in real ter

This practice should be reviewed in conjuction with a detailed high-level manpower planning exercise across the sector Related issues concern the possible privatisation of veterinary services to some (high value) livestock owners with a view to their hiring their own professional advisors. Given the current lack of information about these or document of such arrangments, a short (two year) pilot project for veterinary practice should be instituted.

7.3 EAST AFRICAN COOPERATION ON AGRICULTURAL MATTERS

30. In the area of agricultural information and services, Uganda has suffered by comparision with Kenya and Tanzania. The possibilities of cost-sharing or user-fee arrangements with the neighbouring states should be explored for the following areas:

Plant quarantive services (of AG-37)

Access to library journals and books, purchase of seeds, planting materials and livestock, joint use of internationa retriev al systems scientific diagnostic services.

Agro-meteorological services

Multi-country professional training courses.

7.4 PARTICIPATION' SELF-HELP AND THE ROLE OF NGOS

31. Under the general desire to attract resources for rehabilitation and development, there is possibly a tendency to neglect the developmental roles of community self - help, aided often by national and/or international non-governmental agencies - charities, churches, clubs and groups of various kinds. This question possibly could be considered productively both at a national level and in relation to specific project proposals. For example, projects AG-50 goats and sheep, AG-30 commercial livestock and AG-50 fisheries, dams, would seem to offer scope for local community effort supported by NGOS.

7.5. RETRAINING OF HIGH-LEVEL MANPOWER

32. With the deterioration over the last twelve years in library materials and teaching equipment at Makerere and the other professional training institutions and the relative isolati of professionals from new scientific applications and development experience in neighbouring countries, there is a to carefully assess the nature and methods of retraining/up /refreshing trainers, recent graduates and long-service professionals in the different specialisms. The institutio a staff college facility, preferably drawing in the resourc Makerere University (at the same time reducing any tendency ivory-tower isolation from grass-roots realities, should be considered.

8. MEDIUM-TERM POLICY ISSUES

33. A number of important issues requiring analysis and resolu in the medium-term have been identified. Time constraints facing the mission, however, did not permit their full investigation. The key questions only are summarised here; it is recommended that task - forces are instituted with ap membership over the next 18 months to identify and appraise options or solutions.

8.1 LAND POLICY

34. The leading issues here concern:

(i) The principles for resolving the increasing severity of conflict between major forms of land-use; cropping, ranching, grazing, fores and wild-life;

(ii) The implications for resource productivity, employ ment and income distribution of recen changes in land tenure, especially the leas of tracts of land formerly used under custom

rights to state land:

(iii) The possible need for assisted or pump - primary land settlement schemes on unused or under-used land for landless or near-landness families from densely populated district;

(iv) The possible merits and administration feasibility of a land tax on the minority of large land holdings

(v) The role of new techniques for tsetse eradication (odour- baited traps) in reclaiming or releasing large areas of land for livestock development and/or small-holder settlement e.g. in Western and North-Western Uganda and in South Busoga.

8.2. RESEARCH STRATEGY

35. The key question in this area is whether to attempt the transfer of teclimology (tot) system of the 1960's or to replace it with either farming systems research, or the farmer first and last model, both. supplemented by search activities (information retriev al) and an integrated diognostic service. The tot system (research-extension-farmers) would be very expensive to reconstruct and is thought to be potentially less cost effective than either of the other options. The future of projects AG-09 Agricultural Research Projects AG-32 Annual Health Research should be encompassed within this study In two other research projects (AG-47 and AG-55 crops for industry) a vigorous commercial orientation appears to be lacking.

8.3 FOOD SUPPLY POLICY

36. A food policy strategy, involving a decentralised pattern of strategic grain resources, has been recommended by an EEC

mission. Grain storage on this scale is likely to be costl
however, since years of poor harvest are very infrequent in
Also, early warning system cannot be effectively maintained
after the loss of the former EAC agro- mateorological servi
The future role of the Produce Marketing Board and the scop
for regular exports of surplus maize (project AG-34), beans
other foodstuffs needs to be realistically appraised on the
basis of time - series data for Eastern Africa. Arrangeme
for locust control in the sub-region, and the risk posed to
supply, should be reassessed in the same exercise.

8.4 AREA-BASED AGRICULTURAL FARMING' INTEGRATED RURAL DEVELOPME AND DECENTRALISED REGIONAL OR DISTRICT -LEVEL PLANNING

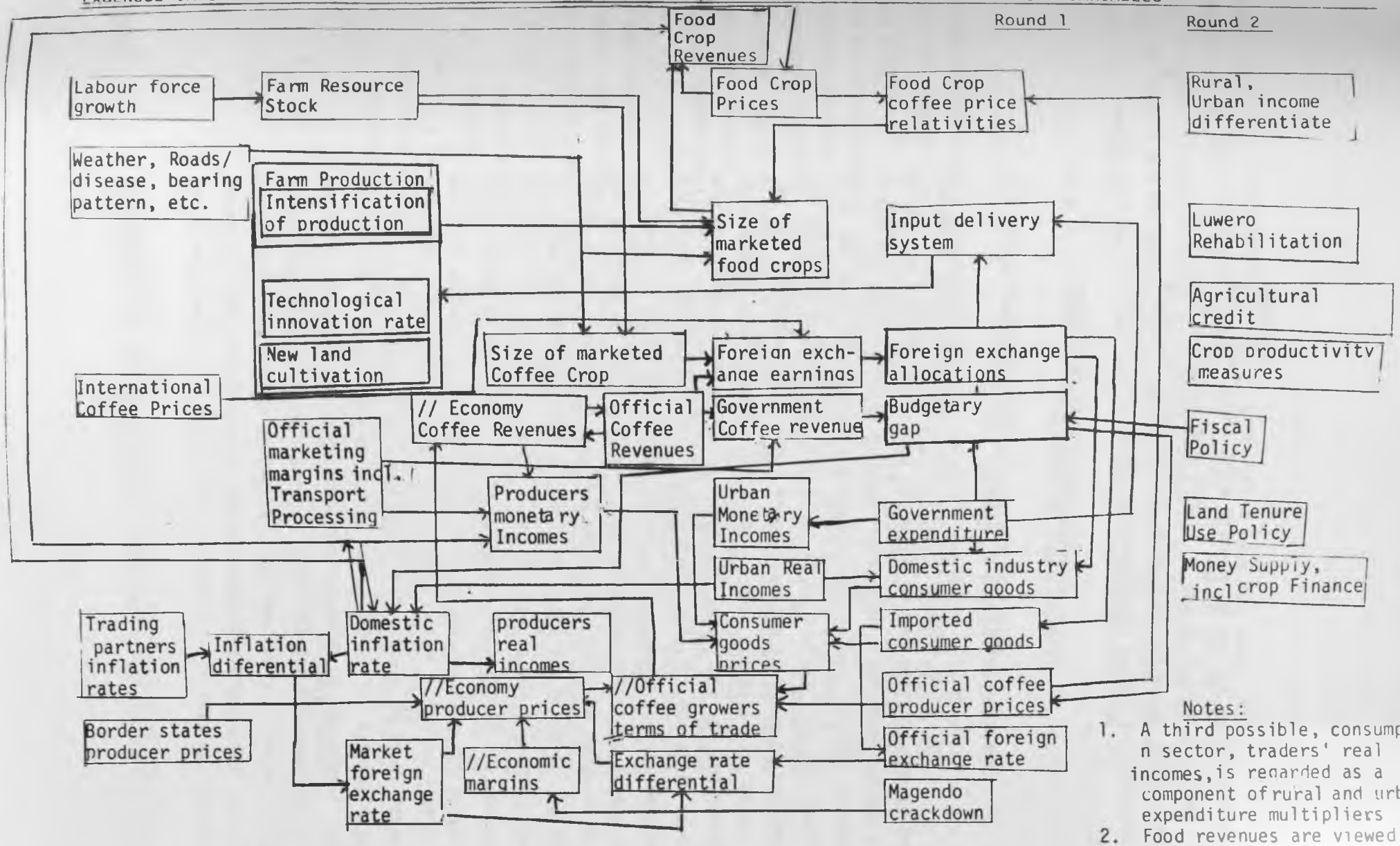
37. There has been relatively little experience in Uganda with these spatial and multi-sectoral approaches compared with and Tanzania. Two such projects are in progress(AG-04 and and three are proposed (AG-23, 38 and 39). At present, they not to include sufficient income - generating activities t as the leading edge for rural development.

Other such projects could be combined with their different long-running models for such projects are conveniently ava in Tanzania in Tanga (GTZ - assisted) and Iringa (EEC - ass regions. The possible utility for Uganda of this large and complex subject is recommended for, thorough study on an Eas African basis by a small high-level team.

8.5 RE VIEW OF FARMS FOR THE REHABILITATION OF PRISONER S

38. It is suggested that the nature and effectiveness of this approach to prisoner rehabilitation, especially the releva of scale and techniques for future small-scale farmers, be to evaluation prior to proceeding with project proposal

THE MEDIUM-TERM UGANDA COFFEE MODEL: CONCEPTUAL VERSION



Notes:

1. A third possible, consumption sector, traders' real incomes, is regarded as a component of rural and urban expenditure multipliers
2. Food revenues are viewed as inversely related to coffee real incomes.

METHODOLOGY OF THE EXCHANGE RATE AND COFFEE PRICING POLICY STUDY

The simple analysis summarised in tables I - IV sets out to examine the nature of the relationships between international prices, the pattern of production, the shares of the official and parallel markets, exchange rates and official producer price levels on the one hand and foreign exchange earnings and Government tax revenues on the other. The analysis relates to a short-term period of three years i.e. 1986/87 - 1988/89. It is set in the context of identifying alternative national stabilisation strategies for those years. The assumed base situation (Table 1) is a modified version of a sub-modal in a balance of payments projection constructed by the IMF. The three subsequent tables explore the effects on total production, foreign exchange revenue and government tax revenues of three different levels of exchange rates and producer prices. International coffee prices and marketing costs are taken as given for the purposes of this analysis. An immediate objective of the model is to identify gross magnitudes of foreign exchange and tax revenues at different foreign exchange rates, given cautious estimates of (a) short and medium-term responses of supply to price, and (b) the extent of market-switching between the parallel and the official markets. Following the IMF procedure, the model is constructed in terms of constant prices. The possible effects of inflation, in particular, are not indicated, with the sole exception of exchange rate-induced changes in marketing costs via their foreign exchange component. The model is not a forecasting model; it aims to elucidate the major policy implications in the areas of exchange rate, producer price and tax revenue decisions.

The key assumptions used in the analysis are:

(i) International Coffee Prices:

Current (July 1986) international prices are trending downwards after the beginning-of-year peak which led to the suspension of the international quota. A set of prices have been used which are lower than those assumed in the IMF projection (US $/Kg. f.o Mombasa):

	1986/87				1987/88	1988/89
	Q.1	Q.2	Q.3	Q.4		
IMF price assumptions	3.0	2.9	2.7	2.7	2.6	-
Revised price assumptions	2.6	2.5	2.4	2.4	2.4	2.4

The revised prices reflect: (a) a current composite prices based on a 95 percent Robusta share at Shs. 2.49 per kg. and a 5 percent Arabica share at Shs. 4.48 per kg. (Arabica has been around 8 percent of the Uganda crop recently, but as it is grown in border regions it is particularly suceptible to parallel market/official market price differentials); (b) the assumption that the international quota will be reactivated with the effect of protecting the Uganda composite price at around US $ 2.40 per kg. f.o.b. Mombasa; (c) the cautious assumption that there will be no significant frost in Brazil's southern coffee zones in August 1986, implying that world prices will not start rising again; and (d) the assumption that Uganda will be able to secure a significant upward revision of its exported coffee quota of 2.6 - 2.7m. bags. This increase could be argued on several grounds: Uganda's higher quota levels in the 1960's; the dependence of the current reconstruction activity on favourable treatment for a specific period prior to a phase of planned diversification; and the fact that as a result of large sales markedly lower producer prices in non-quota markets would subsequently induce an increase of sales to the parallel economy, such coffee moving illegally into quota markets. In other words, some expansion of quota is a necessary condition for the successful application of ICO control measures to coffees of Ugandan origin.

(ii) Structure and Performance:

The IMF base production figure is 2.4 m. bags or 144,000 tons. This reflects Uganda's recent floor quota (although it was raised to 2.6 m. bags in 1983/84). This is believed to be an understatement of probable official supply at the current prices of Shs. 850.00 per kg. Robusta and Shs. 1,500.00 per kg. Arabica. Firstly, there has been a reduction in non-monetary costs (or risks) imposed by

the previous absence of law and order in the country; this can be expected lead to some increase in output. Secondly, the reoccupation of the Luwero area is expected to generate additional output both from stumping and regeneration and from new planting, bearing commencing after 30 months. On the other hand, the stock of coffee trees is ageing, the bulk having bee planted in the 1930's and 1950's, while replacement has probably been tapering off. Adjustments for these factors have been made to the annual production figures, as follows ('000' tons):

	1986/87	1987/88	1988/89
Base (quota)	144	144	144
'Law and Order'	10	10	10
Luwero increment	11	22	33
Ageing factor	-5	-9	-13
TOTAL	160	167	174

1. A rate of 3 percent decline per annum has been applied to the ar assumed to be generating 144,000 plus 10,000 equals 154,000 tons

Finally, an estimate needs to be made of the quantity of coffee purchased by the parallel economy. Various pieces of evidence suggest that the annual production lies in excess of 200,000 to and that 50-60,000 tons are being regularly smuggled out of Ugan Earning on the cautious side, and assuming that the 10,000 tons increment to official sales may represent a transfer from the magendo market, a figure of at least 40,000 tons remains to be 'captured' by the official market. Part of this, however, is represented by arabica production close to the national borders. This is estimated at around 10,000 tons in Bugishu and 6,000 to in Ankole and Kigezi.

(iii) Price Responses:

Coffee yields will respond within the 6 months season to intensified weeding, mulching, fertilising (with annual manure, chemicals or coffee husks) growing and cleaner picking. It is reasonable to assume (and supported by numerous empirical studies in Africa and elsewhere) that many (not all) farmers will vary their intensity of production activity in relation to their expectations of return to such effort, especially in inflationary conditio

This expectation of return to effort is best measured by 'real price' or net barter producers terms of trade. This is the ratio of the price received by the producers for their crop and the prices they pay for a set of consumptio goods (and production inputs, if any) each price being weighted by its proportions in their total expenditure. In the study, a short-run (12 month) elasticity of supply of 0.1 was assumed - a continuously low figure.

We must also take into account possible cross-elasticity of supply effect; another activity is becoming more rewarding, attracting inputs away from coffee. The available data (food components of urban CPIs) do not indicate that this has occured in the period since 1981.

In the longer-run, output can increase as a result of recently planted trees exceeding the effects of uprooting and ageing in old trees. Farmers are likely to be more sensitive to real price changes than in the short-run, although the effect is lagged by 2½ - 3 years because of the crop gestation period. A low response of 0.2 over a 2½ year period has been assumed, with a separate deduction being made for ageing effects as explained above.

Finally, allowance should be made for a marketing response - or diversion sales - between the official and magendo markets depending on their relative pri levels. In these tables, it was assumed there woul an elasticity of substitution from magendo to offi sales of 1.0 above a trigger price in June 1986 pr of UShs 1500 per kg, the upper end of the magendo buying range reported by the Coffee Marketing Board In the macro-economic projection, scenario 2c, this reduced to 1.0 above a trigger price of UShs. 1300, was felt that the Coffee Marketing Board estimate w tend to be exaggerated no higher elasticity than 1. assured to reflect the fact that one-third or so of capturable sales lies close to bordering countries, especially Kenya, Rwanda and Zaire. The zero subst pattern assumed in the range Shs. 850 - 1300 is tho adequately reflect the higher risk (but more immedi cash payment) of magendo market operations, even un improved 'law and order'.

TABLE: I

UGANDA COFFEE SECTOR: BASE SITUATION 1986/87 - 1988/87

	1986/87					1987/88	1988/89
	Q1	Q2	Q3	Q4	Year		
1. U.S $ (Fob. Kampala)	2.6	2.5	2.4	2.4		2.4	2.4
2. '000 Tons Official Exports	52.9	24.1	31.3	51.7	160.0	167.0	174.0
3. US $ m	137.5	60.3	75.1	124.1	397.0	400.8	417.6
4. Exchange Rate (U.SHs. per Kg.)	1400	1400	1400	1400		1400	1400
5. Exp.Rev. (USHs.per Kg.)	3640	3500	3360	3360		3360	3360
6. Total Costs (USHs. per Kg.)	2330	2330	2330	2330		2330	2330
6.1 Total CMB & Others	756	756	756	756		756	756
6.2 Producer price	1574	1574	1574	1574		1574	1574
6.2 a (Kiboko)	(850)	(850)	(850)	(850)		(850)	(850)
7. Tax Revenue (USHs. per Kg.)	1310	1170	1030	1030		1030	1030
8. Total Tax (B.USHs.)	69.3	28.2	32.3	53.3	183.0	172.0	179.2

UGANDA COFFEE SECTOR: LEVEL 1 EXCHANGE RATE AND PRODUCER PRICE ADJUSTMENTS 1986/87 - 1988/89 .

		1986/87					1987/88	1988/89
		Q1	Q2	Q3	Q4	Year		
1.	US $/Kg (Fob Kla)	2.6	2.5	2.4	2.4		2.4	2.4
2.	1000 Tons Officail Exports	60.0	27.2	35.4	57.8	180.4	187.0	207.7
3.	US$ Forex	156.0	68.0	85.0	138.7	447.7	448.8	498.5
3.1	Gain over base	+18.5	+7.7	+9.9	+14.6	+50.7	+48.0	+80.9
4.	Exchange Rate (USHs./U.S.$)	2000	2000	2000	2000		2000	2000
5.	Expected Rev. (USHs. /Kg.)	5200	5000	4800	4800		4800	4800
6.	Total Costs (USHs./Kg)	3943	3998	4068	4168		4168	4168
6.1	CMB & Others	795	850	920	1020		1020	1020
6.2	Producers price	3148	3148	3148	3148		3148	3148
6.2a	(Kiboko)	(1700)	(1700)	(1700)	(1700)		(1700)	(1700)
7.	Tax Revenue (USHs./Kg.)	1257	1002	732	632		632	632
8.	Total Tax	75.4	27.3	25.9	36.5	165.1	118.2	131.3
9.	Additional Revenue Required for Constant Total Tax (B.USHs.)	(-6.1)	0.0	0.0	-13.0	-130	+53.8	-47.9

T A B L E: III

UGANDA COFFEE SECTOR: LEVEL 2 EXCHANGE RATE AND PRODUCER PRICE ADJUSTMENTS 1986/ 87 - 1988/ 89

		1986/87					1987/88	1988/89
		Q1	Q2	Q3	Q4	Year		
1.	US$ /Kg. (Fob Kla)	2.6	2.5	2.4	2.4		2.4	2.4
2.	000 Tons Official Exports	69.8	29.9	39.9	60.0	199.5	210.0	258.2
3.	US $ m. Forex	181.5	74.8	95.8	144.0	496.0	504.0	621.1
3.1	Gain of Forex Over Base	-44.0	-14.5	-20.7	-19.9	-99.0	-103.2	-203.5
4.	Exchange Rate (USHs./US $)	2500	2500	2500	2500		2500	2500
5.	Expected Rev. (USHs./Kg.)	6500	6250	6000	6000		6000	6000
6.	Total Costs (USHs./Kg)	4751	4846	4981	5167		5167	5167
6.1	CMB & Others	816	911	1046	1232		1232	1232
6.2	Producer price	3935	3935	3935	3935		3935	3935
6.2a	(Kiboko)	(2125)	(2125)	(2125)	(2125)		(2125)	(2125)
7.	Tax Rev (USHs./Kg)	1749	1404	1109	833		833	833
8.	Total Tax (B.USHs.)	122.1	42.0	44.2	50.0	258.3	174.9	215.6
9.	Additional Revenue required for constant total Tax (B.USHs.)	- 52.8	-13.8	-11.9	-3.3	-75.3	- 2.9	-36.4

UGANDA COFFEE SECTOR: LEVEL 3 EXCHANGE RATE AND PRODUCER PRICE ADJUSTMENT

	1986/87				Year	1987/88	1988/89
	Q.1	Q.2	Q.3	Q.4			
1. US$ kg. (f.o.b. Mombasa)	2.6	2.5	2.4	2.4		2.4	2.4
2. '000 tons official exports	76.5	32.8	43.7	65.6	218.5	229.7	292.3
3. US$ m. Forex.	198.9	82.0	104.9	157.4	543.2	551.3	701.5
3.1 Forex. gain over base	+62.4	+21.7	+29.8	+33.3	+145.2	+150.5	+283.9
4. Exchange Rate (UShs/US$)	3,000	3,000	3,000	3,000		3,000	3,000
5. Expected revenue (UShs/kg)	7,800	7,500	7,200	7,200		7,200	7,200
6. Total costs (UShs/kg)	5,548	5,688	5,898	6,169		6,169	6,169
6.1 CMB plus others	826	966	1,176	1,447		1,447	1,447
6.2 Producer price	4,722	4,722	4,722	4,722		4,722	4,722
6.2.a (Kiboko)	(2,550)	(2,550)	(2,550)	(2,550)		(2,550)	(2,550)
7. Tax Revenue (UShs/kg)	2,252	1,812	1,302	1,031		1,031	1,031
8. Total Tax B. U.Shs.	172.3	59.4	56.9	67.6	356.2	236.8	301.3
9. Additional Revenue for Constant Total „tax..	-103.0	-31.2	-24.6	-14.3	-173.2	-64.8	-122.1

T A B L E I

APPENDIX 3

PUBLIC SECTOR INVESTMENT/TA PROJECTS: AGRICULTURAL SECTOR FOREIGN EXCHANGE REQUIREMENTS (US$.M)

SUB-SECTOR	NO.OF PROJECTS	YEAR	PRIORITY 1		PRIORITY 2		PRIORITY 3		PRIORITY 4		TOTALS	
			Secured	Unsec.	Secured	Unsec.	Secured	Unsec.	Secured	Unsec.	Secured	Unsec.
1. AGRICULTURE: Incl. Crops) Forests) Livestock) Fisheries) Coops/Mkting) (all AG projects)	58	1986-1989	18.57	23.90	50.81	38.72	37.01	35.32	20.97	30.75	127.35	128.68
		Balance	-	17.11	32.33	28.81	4.03	17.36	6.26	8.69	44.13	70.46
2. RURAL TRANSPORT: (TRs 16, 33, 34)	3	1986-1989	-	11.26	-	-	-	-	-	-	-	11.26
		Balance	-	19.80	-	-	-	-	-	-	-	19.80
3. AGRIC. PLANNING: (PAs 1, 2, 3)	3	1986-1989	0.80	3.97	-	-	-	-	-	-	0.80	3.97
		Balance	-	0.16	-	-	-	-	-	-	-	0.16
T O T A L S:	64	1986-1989	19.37	39.13	50.81	38.72	37.01	35.32	20.97	30.75	128.15	143.91
		Balance	-	37.07	32.33	28.81	4.03	17.36	6.26	8.69	44.13	90.42

NOTE: PRIORITIES 1 and 2 should go ahead; 3 would merit funding by year 3; 4 should be reallocated to other projects.

TABLE II(Contd.)

Priority (1-3)	Sub-Sector and Project	1986/87 (including 1985/86 allocation assumed to be underspent)		1987/88	1988/89	Balance of Project after July 1989	TOTAL Secured	TOTAL Unsec.
2	AG 24* Oilseeds Development	S	2.5	1.9	1.2	-	5.6	-
		U/S	-	-	-	-		-
1	AG 25* Cocoa Development	S	0.1	-	-	-	0.1	2.1
		U/S	0.2	1.8	0.2	-		
1	AG 27 Cotton Production	S	-	-	-	-	-	8.3
		U/S	-	2.0	2.7	3.5		
3	AG 34* Maize Development	S	-	-	-	-	-	2.0
		U/S	0.2	0.7	1.1	-		
2	AG 35* Integrated Agriculture	S	-	-	-	-		
		U/S	0.1	0.6	0.5	-	-	1.1
2	AG 36*Horticulture-Feasibility & Marketing Research	S	0.1	-	-	-	0.1	0.9
		U/S	-	0.9	-	-		
2	AG 37* Plant Protection and Quarantine Service	S	-	-	-	-	-	4.5
		U/S	-	1.1	0.9	2.5		
1	AG 38* Integrated Rural Development (N.W.Uganda)	S	-	-	-	-	-	1.5
		U/S	-	0.8	0.8	-		
2	AG 39 Integrated Rural Development (W.Uganda)	S	-	-	-	-	-	1.5
		U/S	-	0.8	0.8	-		
3	AG 40* Wheat and Barley Development	S	-	-	-	-	-	0.5
		U/S	-	0.5	-	-		
2	AG 55* Cereals and Roots for Industry - Serere Research	S	0.1	0.1	N /S	-	0.2	N/S
		U/S	-	-	-	N/S		

Priority (1-3)	Sub-Sector and Project	1986/87 (including 1985/86 allocation assumed to be underspent)	1987/88	1988/89	Balance of Project after July 1989	TOTAL Secured	TOTAL Unsec.
2	AG 57 Potato Project	S - U/S -	- 0.6	- 0.5	- 0.8	-	2.0
	Sub-Total; Crop Production:	S 29.1 U/S 4.7	27.2 27.2	20.7 23.6	13.3 44.6	90.3	99.9
	FORESTS:						
3	AG 11 Forest Inventory	S - U/S 1.0	- 0.6	- -	-	-	1.5
2	AG 26* Forestry for Rural Communities	S - U/S 0.2	- 0.2	- 0.3	- 0.3	-	1.0
2	AG 42 Peri-urban Fuelwood	S - U/S 0.7	- 0.3	- 0.2	- 0.1	-	1.2
2	AG 44* Regeneration of Natural Forests	S - U/S 0.2	- 0.1	- 0.1	- -	-	0.4
2	AG 45* Afforestation	S - U/S 0.4	- 0.3	- 0.1	- 0.1	-	1.0
2	AG 59* Forestry Research	S - U/S -	- 0.7	- 0.4	- -	-	1.1
	Sub-Total: Forests:	S - U/S 2.5	- 2.2	- 1.1	- 0.5	-	6.2
	LIVESTOCK:						
1	AG 12 Livestock Disease Control	S 3.0 U/S 1.1	2.0 1.1	1.1 2.6	- 2.7	6.1 6.1	7.5
2	AG 13* Dairy Industry	S 3.2 U/S 4.8	2.2 5.3	0.1 6.5	- 9.3	5.5 5.5	25.9

T A B L E II(Contd.)

Priority (1-3)	Sub-Sector and Project	1986/87 including 1985/86 allocation assumed to be underspent)		1987/88	1988/89	Balance of Project after July 1989	TOTAL Secured	TOTAL Unsec.
3	AG 14* Valley Tank/ Bush Clearing Unit	S	-	-	-	-	-	4.8
		U/S	-	1.5	1.8	1.5		
3	AG 28 Livestock Markets, etc.	S	-	-	-	-	-	2.3
		U/S	-	0.9	0.8	0.6		
2	AG 29* Beekeeping	S	0.2	0.1	-	-	0.3	0.3
		U/S	-	0.3	-	-		
3	AG 31* Tsetse and Tryanosomiasis Control	S	-	0.2	-	-	0.2	2.0
		U/S	-	1.3	0.3	0.4		
3	AG 32* Animal Health Research Centre	S	0.5	0.5	-	-	1.0	4.0
		U/S	1.4	1.0	1.6	-		
3	AG 33* Veterinary and Fisheries Training Institutions	S	-	-	-	-	-	2.2
		U/S	-	1.0	1.0	0.2		
1	AG 52 Assistance to Hides and Skins	S	-	-	-	-	-	0.2
		U/S	-	0.2	-	-		
3	AG 58* Integrated Fisheries and Poultry Projects	S	-	-	-	-	-	7.4
		U/S	3.6	1.7	2.1	-		
	Sub-Total: Livestock	S	6.9	5.0	1.2	-		
		U/S	10.9	14.3	16.7	14.7	13.1	56.6
	FISHERIES:							
3	AG 46* Acquaculture	S	-	-	-	-	-	3.3
		U/S	0.4	0.5	1.3	1.1		
3	AG 47* Fish Stock Inventory	S	0.9	0.4	0.1	-		
		U/S	0.2	0.6	2.2	1.0	1.4	4.0

8. A medium-term macro-economic model of the Uganda coffee sector is set out at Appendix 1. Data is missing or unreli for many of the identified variables, so that it would not possible to construct a computable model at this stage. Nevertheless, the attempt to conceptualise the key exogenou state and policy variables and the overall pattern of inter-action has provided a useful framework, in that it al the more fragmented exploration of a smaller number of vari to be undertaken with greater confidence that the results can be correctly interpreted. The mothodology of the cof study is described in Appendix 2.

9. Of the large number of variables identified in the model as being of potential significance in explaining the behaviour of the coffee sector, the following were given particular attention in the initial policy analysis:

(i) Exogenous variables:

- International coffee prices
- Border states producer prices
- Age structure of planted coffee

(ii) Policy variables:

- Official exchange rates
- Official producer prices
- Official action against illegal marketing activity
- Rehabilitation of the 'Luwero Tr

(iii) Target variables:

- Coffee production
- Marketed sales in official chan
- Foreign exchange earnings
- Government tax revenues
- Coffee growers' monetary income

Coffee growers' real incomes

Rate of domestic inflation

10. The main results of the coffee study may be summarised as follows:

(i) The coffee crop dominates exports. Informed observers estimate that 40-60,000 tons are smuggled annually, representing a major loss of critically needed foreign exchange. Remedial actions include:

- tightening security checks on the borders, dismissing corrupt officials, moral and political exhortation, and removal of non-price constraints mentioned above;
- the maintenance of and, if possible, improvement in the producers' terms of trade. Producer prices must not be eroded by inflation. Also, since more can be done to raise yield through weeding, pruning, insect control etc., a higher real price can induce a supply response even in as short a time as 4-6 months. The temptation to sell on the unofficial market is also greater the higher the differential between prices in the two markets. This may reflect the gap between official and unofficial exchange rates, as at present, or the cross-border real price differential i.e. the comparative domestic terms of trade for coffee producers.

(ii) The level of Uganda's coffee quota may also become a problem in the near future as the quota to list a country's (currently 23 million bags) has been reduced. Government should use every argument to have its quota restored to pre-Amin levels as official purchases and stocks increase.

(iii) A system of open auction sales, similar to that which is serving Kenya well, should be introduced.

3. GENERAL PROBLEMS

11. There are a series of major problems which have depressed the output and officially marketed sales of Uganda's main cash crops in recent years:

- poor incentives, i.e. low producer prices relative t those of goods purchased by the producer
- smuggling
- inadequate transportation equipment and poor roads
- problems with the availability, quality and timelines of production inputs
- creeping marketing margins
- unreliable power supplies.

Each of these needs addressing urgently if the situation is to improve.

12. COTTON

It is technically and economically feasible to raise cotton output significantly, from the current official figure of 60,000 to as high as 350,000 bales by 1990. This will requ

- raising the producer price either to the market exchange rate level or to some intermediate level
- clearing the backlog of uncollected and unginned cotton
- removing the purchasing monopoly of cooperative unio which fail to clear old seed cotton by the beginning of the 1987/88 season, and
- exploring the advantages of vertical linkages from t lint-consuming domestic textile industry to the grow (cf. the support once provided to Uganda growers by the Lancashire Textile Industry); the offer of BCGC t advise in this area should be accepted.

13. This commodity can be rapidly increased (estimated feasible increase is from around 3000 to 175000 tons by 1990), as the crop is in the ground, in the form of overgrown bushes which can be brought back into production within the year. A significant real price increase is needed, as for cotton. In addition to relieving the general constraints, structural re-organization of the key authorities - UTA and UTGC - is overdue. This should give more control over their industry and, while removing the marketing nonopoly held by UTA, enhance its capacity to serve the industry's needs.

14. SUGAR' TOBACCO AND OILSEEDS

These activities are discussed in the industrial sector report, although several production aspects of sugar and oil seeds are left to the official agricultural agencies. In the case of sugar, very serious foreign exchange consuming delays in restoring output have occured at the Kinyala and Kakira plantations. The former should be placed under an experienced managing agent, as recommended by the Bank of Uganda. In the case of Kakira, tenders for the factory reconstruction have been received. The government should enter discussions concerning the proportion of capacity which is to be produced by small-holders on a settlement or outgrower form of production (cf. Kenya, Swaziland). Oilseeds production has suffered from non-availability of new seeds varieties, low prices and lack of activity by the Lint Marketing Board in reactivating its ten acquired oil and soap works. These problems should be resolved rapidly.

4. STRUCTURAL REFORM OF PRODUCTION:

REORGANIZATION ON A VERTICALLY-INTEGRATED BASIS

15. It is clear that small holders' current production difficulties can be overcome most rapidly where there is a strong vertical linkage from the agro-industrial end-user to the producer.

This system is working effectively for tobacco growers. It is proposed that studies be initiated immediately to examine scope for vertical integration in the following areas:

Cotton: A Uganda textile firm consortium to take ov major financial and technical responsibilities for production and primary processing except where coope unions are operating efficiently.

Oilseeds: A Ugandan oil, soap and animal feeds para (but not the LMB in view of its past inactivity) to over financial and technical responsiblities for oi production and primary processing (i.e. groundnuts, castor, sesame, but not cotton seed). The proposed investment project AG-24 (see table II at Appendix 3 should be redesigned accordingly).

Cocoa: An international manufacturing firm to be ap on a managing agent basis to revitalize Uganda's emb cocoa industry. Project AG-25 should be redesigned necessary.

Hides and Skins: The case for ULATI taking a major in the improvement of hides and skins marketing incl initial preparation, should be examined, with the implications for projects AG-12 and AG-52 assessed accordingly.

16. Complementary changes will be required, if these proposed reforms are accepted, in the role and functions of the agricultural and livestock extension service. These should in general, concentrate on applied farm-level research and on the more perishable and higher-value food crops.

5. STRENGTHENING AGRICULTURAL PLANNING AND DECISION-MAKING CAPABILI

17. A technical assistance project to assist the planning units divisions in the Ministries of Agriculture, Animal Industry

T A B L E II(Contd.)

Priority (1-3)	Sub-Sector and Project	1986/87 (including 1985/86 allocation assumed to be underspent)	1987/88	1988/89	Balance of Project after July 1989	TOTAL Secured	TOTAL Unsecured
1	AG 51 China/Uganda Joint Venture (L.Victoria Fisheries)	S 0.2 U/S -	- -	- -	- -	0.2	-
	Sub-Total: Fisheries	S 1.1 U/S 0.6	0.4 1.1	0.1 3.5	- 2.1	1.6	7.3
	MARKETING AND COOPERATIVES:						
2	AG 03 Cotton Ginneries	S 3.9 U/S 0.5	3.9 0.8	3.7 1.0	- -	11.5	2.3
1	AG 19 UTCU Workshop	S - U/S -	- 0.8	- 0.8	- 1.5	-	3.0
2	AG 20 Primary Co-operatives Facilities	S - U/S -	- 1.9	- 1.6	- -	-	3.5
3	AG 21 Central Storage Project	S 0.8 U/S -	0.5 -	- -	- -	1.3	-
3	AG 53 Agricultural Finance Agency	S 0.3 U/S 0.6	- -	- -	- -	0.3	0.6
	Sub-Total:Marketing and Co-operatives	S 5.0 U/S 1.1	4.4 3.5	3.7 3.4	- 1.5	13.1	9.4
	RURAL COMMUNICATIONS:						
1	TR 16 Rural Feeder Roads Maintenance Units	S - U/S -	- 2.2	- 2.2	- 15.4	-	19.8

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Priority (1-3)	Sub-Sector and Project	1986/87 (including 1985/86 allocation assumed to be underspent)	1987/88	1988/89	Balance of Project after July 1989	TOTAL Secured	TOTAL Unsecured
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	Sub-Total: Fisheries	S 1.1 U/S 0.6	0.4 1.1	0.1 3.5	- 2.1	1.6	7.3
	MARKETING AND COOPERATIVES:						
2	AG 03 Cotton Ginneries	S 3.9 U/S 0.5	3.9 0.8	3.7 1.0	- -	11.5	2.3
1	AG 19 UTCU Workshop	S - U/S -	- 0.8	- 0.8	- 1.5	-	3.0
2	AG 20 Primary Co-operatives Facilities	S - U/S -	- 1.9	- 1.6	- -	-	3.5
3	AG 21 Central Storage Project	S 0.8 U/S -	0.5 -	- -	- -	1.3	-
3	AG 53 Agricultural Finance Agency	S 0.3 U/S 0.6	- -	- -	- -	0.3	0.6
	Sub-Total:Marketing and Co-operatives	S 5.0 U/S 1.1	4.4 3.5	3.7 3.4	- 1.5	13.1	9.4
	RURAL COMMUNICATIONS:						
1	TR 16 Rural Feeder Roads Maintenance Units	S - U/S -	- 2.2	- 2.2	- 15.4	-	19.8

Priority (1-3)	Sub-Sector and Project	1986/87 (including 1985/86 allocation assumed to be underspent)		1987/88	1988/89	Balance of Project after July 1989	TOTAL Secured	TOTAL Unsec.
1	TR 33 Rehabilitation of Ferries	S	-	-	-	-	-	1.8
		U/S	-	1.5	0.3	-		
1	TR 34 Construction and Repair of Bridges	S	-	-	-	-	-	9.4
		U/S	-	2.4	2.6	4.4		
	Sub-Total: Rural Communication	S	-	-	-	-	-	31.0
		U/S	-	6.1	5.1	19.8		
	AGRICULTURAL PLANNING AND MANAGEMENT:							
1	PA 01 Strengthening Agricultural Planning Services	S	0.5	0.2	-	-	0.8	2.4
		U/S	1.1	0.7	0.6	-		
1	PA 02 Strengthening Fisheries Development	S	-	-	-	-	-	1.3
		U/S	0.9	0.3	0.1	-		
1	PA 03 Cooperative Training	S	-	-	-	-	-	0.5
		U/S	-	0.1	0.3	0.2		
	Sub-Total:Agricultural Planning & Management	S	0.5	0.2	-	-	0.8	4.2
		U/S	2.0	1.1	1.0	0.2		
	FUNDS SECURED							
	Total AG Projects		42.1	37.0	25.7	13.3	118.1	
	Total TR and PA Projects		0.5	0.2	-	-	0.8	
	Combined Total:		42.6	37.2	25.7	13.3	118.9	

TABLE II(Contd.)

Sub-Sector and Project	1986/87 (including 1985/86 allocation assumed to be underspent)	1987/88	1988/89	Balance of Project after July 1989	
FUNDS UNSECURED					
Total AG Projects	19.8	48.3	48.3	63.4	179.4
Total TR and PA Projects	2.0	7.2	6.1	20.0	35.2
Combined Total:	21.8	55.5	54.4	83.4	214.6

SOURCE: Republic of Uganda (1985) Investment Plan for Recovery and Development 1985/86-1989/90 - Kampala. Ministry of Planning and Economic Development.

NOTES:
1 Rows and Columns may not sum due to rounding.
2. * indicates a proposal that the project design be reappraised to ensure a greater impact on immediate development objectives; see Text for discussion.
3. S = Funding secured; U/S = Funding unsecured.
4. Consequential recurrent foreign exchange expenditure has been added to the estimates of unsecured funds required.

TABLE III

AGRICULTURAL SECTOR PROJECTS RECOMMENDED FOR REAPPRAISAL AND REDESIGN OR REPLACEMENT: PRIORITY CATEGORY 4

Sub-Sector	Project Title	Funding(US$m)		Alternative(s) t considered
Crop Production:	AG 05 Manufacture of Equipment for small farms	S -		Divestment to Joint V or privatisation.
		U/S	4.2	
	AG 09 Agricultural Research	S	9.5	Refocus on (a) Search and diagnosis (b) on- trials/demonstrations
		U/S	-	
	AG 41 Prisoners Rehabilitation Farms	S	-	Auto-investment and i financial control.
		U/S	11.5	
Forests:	AG 43 Pulp and Paper Plantations	S	-	Examine (a) land-use priorities (b) regio trade possibilities.
		U/S	1.0	
Livestock:	AG 16 Rehabilitation of Beef Industry	S	7.1	Commercial lending t and parastatal ranch divestment of Minist ranches.
		U/S	17.7	
	AG 17 Rehabilitation of Poultry Industry	S	-	Commercial lending t intensive enterprise
		U/S	5.0	
	AG 18 Rehabilitation of Pig Industry	S	-	Commercial lending t intensive enterprise
		U/S	1.2	
	AG 30 Commercial Livestock Facilities	S	-	Utilise self-help an for physical infrast rehabilitation/const
		U/S	4.9	
	AG 56 Small Ruminants Development	S	-	Examine reasons for in Kenya and possibl enterprise.
		U/S	1.4	
Fisheries:	AG 15 Provision of Fishing Inputs	S	10.9	Replace departmenta activity by (a) com distribution (b) coo and commercial credi
		U/S	15.2	
	AG 48 Fish Marketing Study	S	-	Refocus on informati services and communi
		U/S	0.03	
	AG 49 Mechanised Fisheries Training	S	-	Transfer responsibi to commercial distri
		U/S	0.3	
	AG 50 Fisheries Dams	S	-	Utilise self-help ar for rehabilitating f infrastructure.
		U/S	0.1	
Marketing and Cooperatives:	AG 54 Mechanised Charcoal Briquettes	S	-	Examine (a) value o husks as fertiliser charcoal (b) auto-i by hulleries
		U/S	0.9	
TOTAL:	14 Projects	S	27.5	
		U/S	63.4	
		S + U/S	90.9	

THE COFFEE INDUSTRY

The Coffee Industry in the Context of Macroeconomic Adjustment and longer term growth

Coffee is the commanding heights industry in Uganda's economy. It is almost the exclusive source of the country's foreign exchange and the coffee export duty constitutes about 40% of the Government's total annual revenue (see table 1). It is also an important source of income for a wide section of the population. Coffee pricing and marketing arrangements must therefore be carefully fashioned in order to avoid negative effects on production, export earnings, government revenue and income distribution.

In the past, price policy has aimed at :

1. Stabilizing producer prices and incomes
2. Maintaining production at levels within the quota fixed by the International Coffee Organization (ICO)
3. Diversifying domestic export, and non-export agricultural production
4. Maximizing coffee export proceeds
5. Maximizing coffee duty revenues
6. Redistributing inter-personal and inter-regional incomes.

These objectives are often in conflict and different periods require different emphasis of each of the objectives. In the late 1940's and the 1950's, the first goal was of main importance and it was pursued through the establishment of the Price Assistance Fund which was used to subsidize producer prices and incomes during the lean years.

In the 1960's, after the establishment of the ICO, and with Independenc goals two, three and six pre-occupied coffee price policy. The importa of coffee as a source of government revenue and export earnings rose as that of cotton production declined (see table 1). In the 1970's and 1980's, the need to maximize export earnings and government revenue fr the coffee industry has been obvious given the collapse of the rest of Uganda's agricultural export sector as well as its industrial sector. These goals ought to continue to command the attention of government i current macroeconomic stabilization phase.

A look at Uganda's coffee price policy reveals that during the 1960's 1970's, the producer was taken for granted. He received less than 30% of the coffee dollar in the 1970's. His share was below 5% in 1975/7 and below 15% in the 1973/74 and 1977/78 (see table 2). The domestic coffee earnings are closely tied to the exchange rate. Considering th the Uganda shilling was grossly overvalued in the 1970's, the coffee producer received even much lower shares of the export proceeds at th shadow and black market exchange rates. This somewhat affected coffee production and export volumes though not very significantly (see tabl Coffee prices were raised in 1979/80 and thereafter, explicitly for t purpose of stimulating production. The massive devaluation of the Ug shilling in 1982 largely helped this process. Producer prices rose f Shs. 2.86 per kg in 1977/78 to Shs. 15.40 in 1979/80 and Shs. 70.00 1981/82. They rose further to Shs. 330.00 and Shs. 484.00 in 1983 an 1984 respectively?

Table 1: Relative Importance of Export Crops in Government Revenue and Export Earnings.

Year and Crop	Export Duty as a of Government Revenue.	Export Earnings as of total Export Earnings.
1954		
Coffee	9.2	33.2
Cotton	16.7	51.5
Tea	-	2.3
Tobacco	1.4	-
1958		
Coffee	18.0	45.9
Cotton	11.0	40.0
Tea	-	2.2
Tobacco	1.4	-
1960		
Coffee	8.3	40.8
Cotton	11.2	35.9
Tea	-	3.5
Tobacco	1.23	-
1965		
Coffee	14.7	48.0
Cotton	3.9	27.0
Tea	-	4.0
Tobacco	0.4	4.0
1969		
Coffee	10.3	54.0
Cotton	3.7	17.0
Tea	-	6.0
Tobacco	-	-
1979		
Coffee	36.4	97.0
Cotton	-	1.4
Tea	-	3.4
Tobacco	-	1.1
1980		
Coffee	39.1	96.0
Cotton	-	1.2
Tea	-	0.9
Tobacco	-	0.9
1982		
Coffee	34.1	98.0
Cotton	-	1.9
Tea	-	0.3
Tobacco	-	-
1983		
Coffee	37.9	92.[illegible]
Cotton	-	3.[illegible]
Tea	-	3.[illegible]
Tobacco	-	[illegible]

Source: Uganda Statistical Abstract and Explanatory Memoranda to the Budgets

Table 2: WORLD AND DOMESTIC PRICES OF COFFEE FOR SELECTED YEARS.

Year	Norminal Prices U.SHs./Kg.	Real Producers Prices U.SHs./Kg.	World Price at Official Exchange Rate Ug.SHs./Kg.	1 as a % of 3
1945/46	.36	0.30	1.16	26%
1951/52	1.10	1.10	6.26	18%
1953/54	2.20	2.20	6.48	34%
1955/56	1.65	1.65	5.40	31%
1957/58	1.80	1.80	5.14	35%
1959/60	1.40	1.40	4.22	33%
1961/62	1.40	1.10	2.70	52%
1963/64	1.05	1.05	3.74	28%
1965/66	0.95	0.95	5.12	19%
1967/68	0.95	0.90	-	-
1969/70	0.90	0.90	-	-
1971/72	-	-	7.38	-
1973/74	1.10	0.40	9.08	12%
1975/76	1.20	0.50	36.15	3%
1977/78	2.60	0.30	21.38	12%
1979/80	15.20	0.35	19.88	76%
1981/82	70.00	1.10	224.8	31%
1983/84	330.00	2.20	607.2	54%

Note: The period 1950-70 is assumed to be one of stable prices. Thereafter the Nominal prices are deflected using the official GDP Deflection, 1966 = 100

Source: Uganda: Statistical Abstracts, Background to the budgets. Report of the Committee of Iquiry into the coffee Industry 1967 p.g. 3

I C O: Quarterly Statistical Bulletine.

Table 3 MARKETED PRODUCTION AND OFFICIAL COFFEE EXPORTS

('000 Tonnes)

Year	Marketed Production	Export Volume
1945/46	28	24
1947/48	24	33
1949/50	24	29
1951/52	43	34
1953/54	36	27
1955/56	75	48
1957/58	86	65
1969/60	90	95
1961/62	105	119
1963/64	162	172
1965/66	152	152
1967/68	158	166
1969/70	229	247
1971/72	176	175
1973/74	214	214
1975/76*	199	198
1977/78*	156	206
1979/80*	103	132
1981/82	98	128
1983/84	143	144

* Includes estimates of smuggled coffee by the Coffee Marketing Board put at 30, 60 and 18 metric tonnes respectively.

Source : The Geographical Income of Uganda 1950-56

Uganda Background to the budgets (various issues)

ICO : Quarterly Statistical Bulletin.

Price Policy and its Effects on Production

Assuming that the Coffee Marketing Board acts as a monopsonist and tries to maximize total revenue from exports, it would fix domestic price at the minimum level needed to obtain the supply it requires to fulfil the quota. The Marketing Board here would face the problem of distinguishing between short run and long run output requirements. Gi that the quota system is not always operative (1973-80 and after 1985 and also given that the quota is not always constant and that a countr can make sales to non-ICO members, the Board cannot easily determine the optimal short and long run supply requirements.

Figures I and II give hypothetical short and long-run supply curves of coffee in Uganda based on an examination of the price and output data since the 1940s. An increase in the domestic price of coffee will increase output in the short run by a small or a big amount, depending on the previous price, the amount of crop neglect and the extent of poor harvesting that was prevailing before the increase. If the price increase reaches a certain critical level, new planting will take place in period t_1. In period t_2 an increased output will occur with or without maintaining the price increase. This is illustrated in Figure II which gives the long-run supply curve. This position is verified by historical data. Once the coffee trees are in the ground, it takes little additional Investment to maintain production and so output tends to go up even when nominal or real prices are falling. In Uganda explicit costs of production are usually low and as long as the producer price covers these and leaves a cash margin for the producer to pay for school fees, medical expenses and buy essentials like clothing, sugar, salt etc., he will continue to increase output in the short run. If prices however fall below a critical minimum in comparative terms to other sources of cash incomes as well as to other commodities which the producer purchases, the producer will ignore the coffee shambas and put in little effort in harvesting. And if marketing and payments arrangements are poor as has been the case since the 1970s, the producer is ever more discouraged from coffee production. He may then switch to production of other crops, join formal and informal employment or just remain idle, enjoying his leisure.

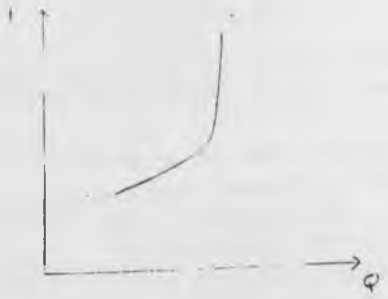
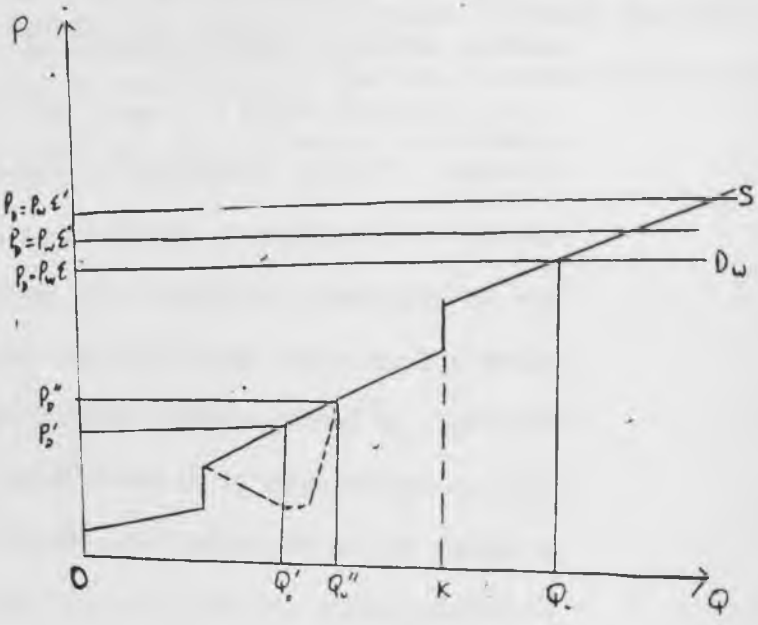


FIGURE II- LONG RUN SUPPLY CURVE.



D_w = World demand for Uganda coffee at International price.

$P_w \cdot \mathcal{E}$ = World price of coffee in domestic currency at the official exchange rate.

$P_w \cdot \mathcal{E}'$ = World price of coffee in domestic currency at the Black market exchange rate.

$P_w \cdot \mathcal{E}^*$ = World price of coffee in domestic currency at the shadow exchange rate.

P_D' = Domestic price paid to growers.

$P_b P_w$ = Margin which goes to the government and the Coffee Marketing Board.

P_D'' = Domestic price level required to get production to the quota level.

S = Long run Supply curve or Marginal cost curve for Coffee Production.

---- = Alternative supply curve route

It may therefore be of little value as fa as short term output decisions are concerned for government to rush into increasing producer prices in the immediate macroeconomic stabilization phase.

Figure II shows that since Uganda is a small producer and therefore a price taker on the world market, she would sell quantity OQ_o at $P_D = P_W \mathcal{E}$ and slightly higher quantities at $\rho \mathcal{E}^*$ and $\rho_{\sim}$ '. The basic optimization rule would be fulfilled at the Equilibrium level $P_w . OQ_o$, where MC would be equal to marginal revenue. This would however be an unrealistic long-run price in a situation of binding quotas.

At the fixed producer price P_D' Uganda would produce OQ_c' which is below what she could possibly produce if producer prices were $P_D = P_W . \mathcal{E}$. The margin $P_d' P_W$ is reaped by both the government in export taxes and the Coffee Marketing Board in Marketing margins and surpluses.

The high prices of 1950s stimulated new planting giving future production capacity of up to K. Uganda's quota in the 1980s was fixed between Q_0-K, but at levels below the 1960s and early 1970s. At price P_p' she was unable to fulfil her quota. A price increase to say P_p'' would have enabled her to do so while a higher price would have resulted in new planting decisions leading to yet a higher production capacity for the future. It can therefore be argued that Uganda's coffee price policy, prevented her from exploiting the market opportunities of the 1970s to the fullest. It also contributed to the country being allocated lower production quotas in the 1980s resulting from the poor performance of the 1970s.

Uganda's quota was as high as 190,000 tonnes in the early 1970s. It was reduced to 125,000 tonnes in 1980 and stood at about 150,000 tonnes in 1983/4. The supply constraint of the 1970s complicated her bargaining position for higher quotas. Right now there is a shortage of coffee on the world market which Uganda could have exploited to the fullest if she had the production capacity. It should be noted that Uganda has also sold some coffee to non ICO members to the tune of 11,160, 7,680, 2,040 and 4,380 tonnes between 1979 to 1982 respectively.

There is no doubt that a pricing policy aimed at exploiting such an opportunity would have entailed risks. But many countries are taking on these risks constantly and often end up winning higher quotas for themselves in subsequent periods.

Just like in the game of the prisoners dilemma, the country has to weigh the probability of the ICO taking punitive action, remaining silent about her non-quota market sales or allocating her a higher quota in subsequent periods. Since Uganda is a small producer, she may get the advantage of a free rider.

Extreme fears about producing at levels beyond the quota would not be justified if the additional production and marketing costs do not exceed the price Uganda obtains from the extra sales to the non-quota markets or if storage costs are below the net benefits from future quota market sales. Production costs estimates by Coda (1984) show that the world price far exceeds the production costs. Total costs of production, processing and marketing for Robusta coffee were estimated to be Uganda Shilling 499/53 per Kg. compared to a world price of about Uganda Shillings 1,200/- at the official exchange rate and of over Uganda Shillings 2,000/- at the black market rate.

The production costs are given by the value of labour, land and capital inputs employed. Most farmers use own and family labour and plots acquired years back which entail implicit rather than explicit costs to the producer. There is also limited use of fertilizers and insecticides, though free or relatively inexpensive local manure or coffee husks are often used to boost output. Most capital equipment is in the form of hoes and pangas, though the use of tractors and herbicides may get to vogue in the near future. The explicit costs thus tend to be low in coffee production and it is apparent that producers have often grown coffee without making economic profits. So the costing of production might have historically helped in arriving at a fair producer price, but might not have told us much about actual production response.

In the 1970's two developments occured which affected and are likely to affect future coffee production. First, labour supply fell and secondly, farm wages rose. In the 1950's and 1960's, there was a lot of migrant labour from Rwanda, Burundi and Kenya and the local econom and labour attitudes allowed workers from Western Uganda to work on f in Buganda. The situation changed from the 1960's. Unskilled migran labour to Uganda declined as the country ceased to be viewed as more prosperous by its neighbours. On the domestic scene, political and economic changes which have occurred since independence have changed attitudes and the labour flow which used to come from Western Uganda Buganda has dried up. The Baganda on the other hand don't want to wo farm labourers. Coda's survey of 844 farmers in 18 districts found t only 36% of the respondents were able to satisfy their hired labour requirements. Family labour has also become less stable given the na of the rural-urban migration and the political and economic disruptio of recent years. Even when farm labourers are available, their high is becoming prohibitive. Adequate levels of coffee production should therefore no longer be taken for granted. Indeed some of the decline in coffee output in the 1970's and 1980's is explained by lack of la Mechanization of production may have to be introduced extensively if adequate supplies of coffee are to be achieved and since mechanizatio is expensive, this calls for higher producer prices or subsidies on tractor services, weeding pumps and herbicides.

Price Policy, Revenue and Foreign Exchange Earnings

Closely linked to production are government revenue and foreign exchange earnings. If coffee export volumes go down, the government has to raise the tax rate in order to raise the same amount of revenue from this source. The export tax rate rose from about 16% in the 1950's to 66% in 1976/77. This high rate of taxation is partly due to the fact that most of the other tax bases have been virtually wiped out. The manufacturing sector, which was an important source of revenues in the 1960's, started to collapse after 1973 when the Asian businessmen were expelled from the country by Amin's economic war declaration of 1972. At the same time as the manufacturing output dwindled to near zero levels, non-coffee agricultural exports also virtually vanished. The tax administration has also been very weak since 1973/74. Levies on coffee exports have therefore been the most convenient source of government revenue. Taxing domestic crops proved difficult while taxing the modern sector, the little of it that remained, became increasingly elusive with the corruption and breakdown of the government administrative machinery. Hence coffee producers have had to bear the brunt of the government tax.

Similarly, the country has become extremely dependent on coffee for its foreign exchange. Table 1 shows that in the 1960's, about 50% of the country's foreign exchange earnings were obtained from coffee exports. Between 1974-84, 90-98% of the country's foreign exchange came from coffee. This was again mainly because of the fall in the production of the seasonal export crops which has taken place since the 1960's. Table 4 gives the value of Uganda's export earnings for 1978-1985. It shows that the contribution of coffee alone is over 95%.

COMMODITY	1978	1979	1980	1981	1982	1983	1984	1985
Coffee	312.7	425.9	338.7	241.6	341.0	339.7	359.0	344.0
Cotton	19.8	6.4	4.3	2.2	3.3	11.6	12.0	15.4
Tea	8.3	1.4	0.3	0.3	0.8	1.2	3.2	1.0
Tobacco	1.8	0.9	0.3	-	-	0.9	1.5	0.5
Maize	-	-	-	-	0.6	11.3	10.1	3.1
Other Exports	10.6	5.1	2.2	2.5	0.7	2.1	6.6	4.3
TOTAL	353.2	439.7	345.8	246.6	346.4	366.8	392.8	368.3

Source : Coffee Marketing Board, Lint Marketing Board, Uganda Tea Authority, Uganda National Tobacco Corporation (B.A.T.)

STATISTICS DEPARTMENT.

Since the second half of the 1970s there has been a lot of unofficial coffee exports through smuggling. This has reduced the official foreign exchange earnings of the country as well as the tax revenue from the coffee industry. It should be noted that it is not because of the poor producer prices that this smuggling has been taking place. Rather it is because of the grossly overvalued Uganda shillings official government complicity in smuggling and poor boarder checks. The smugglers are interested in the foreign exchange receipts which they could keep abroad or convert into Uganda Shillings at the black market rate. Smuggling also enables them to appropriate for themselves the margins which would have gone to government as tax revenue in addition to the differential between the black market and the official foreign exchange rate. The producer hardly obtains higher than the official prices. The smugglers simply divert the coffee from being exported through the official channels. In fact the producers often benefit because the smugglers pay them promptly compared to the co-operative unions which delay payments for periods ranging from 3 months to 2 years. In this connection encouraging private buyers to operate in competition with the Co-operative Unions has alot to commend it. Unions may also be encouraged to sell shares to private owners in form of joint ventures for the sake of improved efficiency. Shortage of crop finance does constrain the efficiency of the Unions in effecting prompt pavments to the producers. But it is also believed that the Managers of the co-operative Unions tie up crop finance capital in private under takings for quick profits. If private buyers and procesors

are to be allowed either in joint ventures with government or as fully private entities, the process of licensing them should be made easy.

From the foregoing, the marketing board ought to be careful in deciding appropriate producer prices for short and longer term objectives of maximizing revenue and foreign exchange earnings. Heavy taxation and low producer prices may be consistent with short term revenue objectives, as the producer tends to be 'captive' in the short run, but it may be quite incosistent with the longer term revenue and foreign exchange maximization objectives since it may negatively affect production.

The post 1955 output performance shows that inspite of the fall in producer prices from say Shs. 2.20 per kg in the early 1950s to -/ 90 cents in 1969 / 70, marketed production and export volumes reached peak levels of 229,000 and 247,000 tonnes respectively in 1969/70. However poor crop husbandry and neglect in harvesting arising from poor producer prices resulted in a decline in output during the 1970s.

Real producer prices fell to record levels of about -/ 30 cents per Kg in 1977/8. Marketed production and export volumes fell by over 25 percent. The coffee experience is somewhat in sharp contrast to the other seasonal export crops where peak output went down from 85,000 tonnes to 11,000 tonnes for tea and from 5,00 tonnes to 1,800 tonnes for tobacco. Tree crops except tea which requires high maintenance and harvesting costs do not respond very significantly to short run changes in prices. Short run adjustment to a price fall would mean uprooting the crop which is unlikely except under a prolonged price depression.

Income Distribution

Perhaps the most far reaching effect of price policy has been on income distribution. Table 2 shows that the producer, who is the primary claimant of the returns of the economic rents from coffee has hardly received his fair share. Quite possibly he has often not been fully compensated for his explict and implicit production costs. Table 5 gives the comparative share of the coffee dollar paid to producers in Uganda, Kenya and Tanzania between 1974 - 81.

TABLE 5: PROPORTION OF EXPORT VALUE PAID TO PRODUCERS IN UGANDA, KENYA AND TANZANIA (1974 - 1979).

	1974	1975	1976	1977	1978	1979	1980	1981
Uganda	20.6	32.4	17.2	14.5	32.3	58.2	46	50
Kenya a/	92	93.6	91.1	92.1	87.7	N.A.	NA	NA
Tanzania	66.7	60.9	49.5	45.3	49.9	N.A.	NA	NA

Source: Uganda Coffee Marketing Board-mimeograph a/ Includes cost of processing.

The Uganda producer's share of the coffee dollar averaged 23% between 1974 - 78 while that of his counterpart in Kenya and Tanzania averaged 91% and 55% respectively. The share of the Uganda producer would have been even lower had the calculation been done using the shadow exchange rate. The Uganda shilling has for sometimes been more over-valued than the other two. The lower share of the Uganda producer is because of his heavier tax burden averaging 50% between 1972/3 - 1977/8 and as high as 66% in 1976/7. In Kenya the export duty on coffee was as low as 5% up to 1967 when it was halved. It was then discontinued in 1973 and

re-introduced in 1977 at the rate of only 13%. In Tanzania too the duty has been more reasonable. These relative tax burdens may also partly be explained by the relative political weight of the producers in the three countries. Whereas in Kenya the colonial government and the post independence governments have had reason to favour or be influenced by the estates owners who produce about 50% of the coffee, in Uganda the Baganda who grow about 75% of the coffee have had no significant political power or influence in pre and post independence governments.

In Uganda, the Coffee Marketing Board sells the coffee through a sale committee using a 'forward sales' method whereby contracts are concluded for future delivery. It is argued that this method has potential for corruption since the board members may not only undergrade producers' coffee and accordingly underprice it, but they may also take commissions from buyers. Instances of dealing with specific dealers have been a source of concern. The Uganda method differs from that of Kenya where the Kenya Coffee Board sells the coffee directly to private exporters through open bidding at weekly auctions held in Nairobi. The Uganda Coffee Marketing Board however argues that adequate market information on world prices is always available which should rule out corruption. But if the officers somehow collude or if they are not adequately checked, they may get away with some margins. The honesty of Coffee Marketing Board officials has often been doubted and even questioned. Whatever the case whether through corruption or because of the benefits conferred which incidentally raise the administrative overheads thus reducing the producer price, the post of the Chairman of the Coffee Marketing Board has commanded undue importance in the recent years

1/ ABU Mayanja - Parliamentary Proceedings, 1965.

2/ The Chief of Staff of the Uganda Army, General Oyite Ojok was for example the Chairman of the Board between 1981-83 and thereafter the Permanent Secretary of President Obote till his overthrow in 1985. Before, the post was held by close Associates of Idi Amin.

Table 6 gives the relative shares of the coffee dollar between the various economic agents for a selected number of years. Nobody would question the basic justification of taxing

TABLE 6: Distribution of Coffee Export Proceeds (% Share) for Selected Years.

Year	Payment to Growers a/	Government Tax	Marketing Costs	Marketing Board Surplus
1948	41	16	22	20
1951	34	19	9	38
1954	61	17	15	6
1957	64	16	17	2
1959	73	13	22	- 9
1960	71	12	28	-11
1962	-	-	-	-
1964	-	-	-	-
1966	-	-	-	-
1968	-	-	-	-
1970	-	-	-	-
1972	49	30	11	10
1973	34	43	8	15
1974	40	39	10	11
1975	24	56	7	13
1976	19	66	6	9
1977	34	63	6	-3
1978	37	43	20 b/	-
1979	61	26	13 b/	-
1980	53	32	15 b/	-
1981	63	20	17 b/	-

a/ includes payments to processors.

b/ includes marketing board surplus.

Source: C M B - Mimeograph

coffee which has come to be the commanding heights industry of the economy, but from the equity point of view, it is unreasonable for the government to take up to 75% of the coffee dollar (1976 / 7) in export taxes and Coffee Marketing Board surpluses which are also put at the disposal of government. The share of the marketing cos has gone down, though considering the volume of sales, theirs is s very high and it is enjoyed by a few privileged employees of the board. The payments to growers, including processors has ruefully been very low since independence. The colonial government allowed them as high as 73% (1959) and over an average of 60% of the total proceeds between 1954 - 1969.

It is tempting to wish to rectify the above. However during the macroeconomic stabilization phase, one must worry about the implications of such a decision for the economy as a whole. Shoul one reduce the coffee tax burden at the moment? Or should one fig with the exchange rate in order to pay producers higher prices eve though their share of the export dollar may still remair low? (See recent policy pronouncement) or must we defer the equity argument for later?

Alternative Approaches to Price Fixing.

The above analysis suggest that the coffee industry has had sizeab economic rents but these have not been distributed well as far as objectives of maximizing production, government revenue, foreign exchange earnings and income distribution are concerned.

There are several principles which guide price fixing policy. These include the social and the private marginal and average cost analyses; the export price parity principle; the rural-urban income parity principle; and the agricultural-industrial price parity principle. None of these has yet been explicitly used to guide coffee price determination in Uganda. As mentioned already, the Uganda government (1981) with the advice of the IMF and after the float of the Uganda Shilling raised domestic prices by wide margins. The agricultural secretariat of the Bank of Uganda is beginning to incorporate cost considerations in advising on producer prices. We note that this is a step in the right direction. But as Coda (1984) observes that the costing exercise is rather complex because of the difficulty of evaluating fixed costs and implicit costs.

The marginal or average cost pricing approach estimates the additional and the average cost of producing each kilogram of coffee. A reasonable margin is added to this in determining the producer price. Market prices or shadow prices are used depending on whether private or social opportunity cost is the focus of interest. Parity pricing on the other ha attempts to ensure that the producer is not losing out compared to other producers in the economy or compared to the export proceeds obtained. It is our opinion that the principles of agricultural -Agricultural, agricultural-industrial price parity and that of the export price parity are better guides to coffee price determination than average or marginal cost pricing in the Uganda situation today. This is because the later is very difficult to estimate with any reasonable degree of accuracy given the present structure of production. The first principle has been used for a long time in the USA to guide the American farm support schemes The principle popularly known as "the parity doctrine", seeks to

halt if not reverse the decline in the terms of trade between one set of agricultural goods and others or between agricultural and industrial output.

The application of this principle in Uganda should seek to maintain parity between the prices of the controlled agricultural export crop and the food crops which are market determined. This should in addition seek to maintain parity between agricultural prices and industr product prices. Only on this basis would the coffee producers keep up and even increase output for the future otherwise he is bound to switch resources into other production activities which are unlik to bring as much revenue to government or the badly needed foreign exchange to the country. Production data on Uganda in the 1970s illustrates this very well. Estimates of the Ministry of Planning for the 1970s show that the acreage under food crops was increasing while that of coffee either kept steady or declined because some producers retired the coffee shambas and switched to other crop production.

The adoption of this principle would require a proper choice of the base year. The early 1950s were normal years, relatively free from inflation and with minimum government interference on prices. Any of these years can appropriately serve as the base year. Given the base year and using price surveys, parity prices can easily be estimated. Table 7 gives the domestic prices of coffee and a few selected commodities between 1955 - 84. Table 8 gives the relative price changes of these goods over the period while Table 9 gives the appropriate coffee price based on the mean price Index of the different commodities.

The tables demonstrate the need of employing the above Principle. At the above prices the producer would for example require as much as 7kg. of coffee to buy a bar of soap or a kg. of sugar in 1982, and as much as 4 kg. of coffee to buy a loaf of bread. This is in contrast to 1955 when the relative purchasing power was 2kg.of coffee for a bar of soap $\frac{3}{4}$ kg. of coffee for a kg. of sugar and $\frac{2}{5}$ kg. of coffee for a loaf of bread. The relative coffee requirements in 1980 were 28 kg, 22 kg. and 6 kg. respectively. In 1983/4 , the relative requirements were 2 kg. 1.2 kg. and 1 kg. The post 1982 coffee prices are thus a considerable improvement and they do restore the parity between coffee and other competitive agricultural output as well as with the industrial products. Comparative estimates of educational costs, medical and transport costs among others would improve our conclusions. From the above analysis, it can be tentatively argued that the recent doubling of coffee prices was not warranted on equity grounds. It cannot also be justfied either on the grounds of stimulating production in the short run nor in the interest of the long run country's strategy. It is therefore inconsistent with the immediate macroeconomic stabilization and the long term growth objectives.

TABLE 7 Comparative prices for selected number of Commodities between 1955 - 1984 (Uganda Shilling)

Commodity	1955	1960	1970	1978	1980	1983	1984
Coffee (per Kg)	1.65	1.40	.90	2.86	15.4	330	484
Plaintain (per bunch)	-	5.00	7.50	30	200	400	700
Tomatoes (per Kg)				20	100	250	300
Bread (per loaf)	0.66	0.80	1.03	15	100	250	250
Beef (per Kg)	-	3.30	4.94	20	250	400	550
Chiecken	-			100	400	700	900
Fish (per Kg)	-	5.78	5.00	20	100	300	350
Soap (per bar)	-	3.39	4.96	50	450	500	450
Soda (per bottle)				5	120	150	150
Beer (per bottle)	1.84	1.83	2.90	25	250	350	350
Sugar (per Kg)	1.25	1.32	1.50	20	350	300	350
Milk (per lt)	0.40	0.40	0.70	5	80	100	100
Eggs (per tray	16.45	10.78	11.50	180	400	1500	1500
Maize flour (per Kg)	0.60	0.48	1.08	7	80	120	150
Beans (per Kg)	-	0.66	1.38	15	150	200	200
Wheat flour (per Kg)	-	-	-	-	400	300	300
Tobacco (per packet)	-	-	-	20	120	200	250
Pineapple	-	-	-	30	60	100	100
Paraffin (Kerosin per lt)	0.74	0.74	0.85	3	3	80	150
Salt	-	0.44	1.08	15	60	150	150
Rice	-	-	-	15	250	180	250
Potatoes (sweet per kg)	-	0.20	0.30	-	50	100	150
Potatoes (Irish per kg)	-	-	-	5	5	50	150
Petrol (per lt)	0.63	0.87	1.13	7	7	150	200
Toilet tissue (per roll)	-	-	-	30	30	130	150

Source: Statistical Abstracts and Data Collected at the Wandegeya Ma Kampala, Uganda by Author.

TABLE 8: COMPARATIVE PRICE INDEX (U.SH) FOR ANUMBER OF SELECTED COMMODITIES (1955 - 100).

	Commodity	1955	1960	1970	1978	1980	1983	1984
1.	Coffee	100	84.8	54.4	173	933.5	20,000	29,333
2.	Bread	100	121.2	156	2273	15,152	37,878	37,878
3.	Matoke	-	100	150	600	4,000	8,000	14,000
4.	Meat	-	100	149.7	606	7,575	12,120	16,670
5.	Fish-fired.	-	100	86.5	346	1,730	5,190	6,055
6.	Soap Yellow	-	100	146.3	1475	13,274	14,749	13,274
7.	Beer	100	99.5	157.6	1359	13,590	19,021	19,021
8.	Sugar	100	105.6	120	1600	28,000	24,000	28,000
9.	Milk	100	100	175	1250	20,000	25,000	25,000
10.	Eggs	100	65.5	70	1094	2,430	9,118	9.118
11.	Maize meal	100	80	180	1167	13,300	20,000	25,000
12.	Beans	-	100	210	2273	22,730	30,300	30,300
13.	Tobacco	-	-	-.	-	-	-	-
14.	Paraffin	100	100	114.9	405	405	10,810	20,300
15.	Salt	-	100	245.5	3409	13,640	34,100	34,100
16.	Potatoes	100	94	95	-	735	50,000	75,000
17.	Potatoes-sweet	-	-	-	-	-	-	-
18.	Petrol	100	138	179	1110	1,110	23,810	31,746
19.	Education							
20.	Medical treatment							
21.	Textiles							
22.	Transpot							

Source: Calculated from Table 7.

TABLE 9 : COFFEE PRICE: ASSUMING COMPARABLE PRICE CHANGES WITH OTHER PRODUCTS.

	1955	1960	1970	1978	1980	1983
1. COFFEE PRICE (ACTUAL)	1.65	1.40	0.90	2.86	15.40	330
2. COFFEE-PRICE INDEX	100	84.8	54.5	18.2	21.2	133.3
3. MEAN PRICE INDEX-OTHER COMMODITIES (Excluding Coffee)	100	100.3	149	1354.7	10,512	21,606
4. COFFEE PRICE APPLYING MEAN PRICE INDEX OF OTHER COMMODITIES	1.65	1.66	2.50	22.3	173.5	356.6

The other principle suggested to guide price fixing is that of the export parity pricing. According to this principle the producer prices would be based on the f.o.b. dollar price converted in the domestic currency at the official exchange rate. If this principle is to be fair, it is important that the domestic currency is not over valued vis-a-vis the foreign currency, otherwise the coffee producer will be losing out. The shadow exchange rate may be used instead of the official nominal exchange rate if we are to obtain the correct picture. Using the official exchange rate, the share of the producer of the export price is given in table 2. Except for 1979/80 . the producer's share was always below 50%. Given that the Uganda Shilling was over-valued thoughout the 1970s as well as in the 1980s the Producer's share of the real export value was much less that indicated in table 2. Table 10 gives an indication of the overvaluation of the Uganda Shilling in the 1980s even after the introduction of the managed float and the two window system under which the dollar was auctioned on window two.

TABLE 10: Exchange rate comparisons (UGS per USD).

At the end of	Official Rates		
	Window One	Window Two	Unofficial Rates
June 1980	7.3	-	80
June 1981	77.8	-	200.0
June 1982	96.7	-	300.0
June 1983[a]	150.0	280.0	350.0
Nov. 1983[b]	210.0	330.0	400.0
April 1984	280.0	320.0	450.0

Source: International Bank for Reconstruction and Development (IBRD). 1983. Uganda: Country Economic Memorandum. Washington, DC,USA.

a At July 1 for official rates.

b At November 21 for official rates.

Devaluation enables the government to pay higher producer prices and to obtain higher revenues from the coffee Industry. But since devalu has far reaching effects on the macroeconomy, one should not rush int it simply because one wishes to raise producer prices or government revenues.

One of the reasons advanced for the past series of devaluations in Uganda is that of being able to pay higher producer prices for agricu tural exports. Whereas this has served well between 1952 and 1984 to bring the coffee producer in parity with other producers in the economy, the recent doubling of producer prices, if it doesn't result in equal increases in other product prices, will give the coffee producer an edge. A cussory evaluation of the evidence indicates that other producer prices will rise almost pari passu, thus wiping out the relative gains of the coffee producer. And looking at the price increase from the export price parity principle, the coffee producer will still receive just over 50% of the export proceeds at window one and close to 15% at window 2. This compares badly with his share of about 70% of the export proceeds in 1984/5 at the offical rate and of over 25% at the black market rate.

In conclusion during the macroeconomic stabilization phase government should not pay excessively high coffee producer prices especially if these are not likely to stimulate output in the short r and if the longer run strategy of the economy is agricultural export diversitication. The 1984/5 prices were equitable enough and provide sufficient incentives to the producer in a period when the governme needed to rely on coffee as the commanding heights Industry,

This position which takes away a substantial chunk of producer's entitlement is supported only for the short run to enable government oversome its budgetary difficulties and on the assumption that government is determined to eliminate waste, inefficiency and curruption in the public sector.

INDUSTRY

Industrial Sector issues and Recommendations

1 Overview of Immediate Program

The following observations and recommendations stem from Government/UDC documents and discussions, and from meetings with 12 large companies and a handful of very small-scale entrepreneurs.

The major aim in this sector is to revive industrial production as a means of generating income and employment, saving foreign exchange and containing inflation. Small-scale industry (under 10 employees) has been highly resilient over the past 15 years and presently provides an estimated 50% of industrial value added and 80% of industrial employment. This sub-sector can expand significantly with very little imports and virtually no budgetary requirements. Particularly if foreign exchange, budget funding and borrowing requirements of formal industry cannot be fully met, small-scale industry will continue to provide the core of industrial production, labour absorbtion and training with minimal burden on the state. What is most needed by this sector are very small infusions of working capital. Small-scale industrial loan programs are underway through UCB with donor funding, but warrant some expansion and major publicity; most of the very small entrepreneurs do not know of their existence. Activities are presently concentrated in wood products, shoes and leather products and metal fabrication. The only significant import needs are tools metal; the stock of scrap (used auto/bus/lorry bodies) is thin (producers waste much time searching for raw materials). It is thus recommended that some facility be quickly set up to identify and import essential raw materials and tools; small foreign exchange allocations for this purpose, for 1986, are suggested below. The future role of this sub-sector should not be underestimated.

Policy focus continues to be concentrated on the revival and rehabilitation of larger-scale industry, a focus which is appropriate in that problems are concentrated here. Large-scale industry deteriorated dramatically in the 1970s, initially responded to the 1980/81 IDA Credit for industrial inputs, and then faltered and declined. Major reasons for the latter decline are argued to be:

1. Producers did not charge what the market would bear, due to continuing administrative price control and interference, particularly by the Ministry of Commerce, and particularly in government companies - a deeply held tendency to price on a cost-plus basis. In some cases, this tendency stemmed from "moral responsibility". In others, it provided opportunity for senior managers to sell output unofficially to traders and reap large benefits. In firms visited, the average margin between producer and retail prices is still some 100%, and there are indications that, in a few cases, malpractice of the kind just mentioned is still in existence. Traders also receive (d) large margins, and firms were denied sufficient funds to purchase the then-available foreign exchange and finance production increases.

2. There was little innovation in financial markets to provide working capital on the basis of expected earnings rather than rapidly eroding book value of assets. To some extent, pessimistic views about future earnings were also clearly justified.

3. Instances of poor management and mismanagement were frequent, including corrupt practices of political appointees.

4. In some cases, there was major damage to assets through looting and war-related theft.

What policies/measures are now required and what is their probable success? The following recommendations assume relative success in political/security and macro-economic stabilization. Most importantly, they envisage significant inflation containment through monetary and exchange rate policies, to which revival of industrial production should itself contribute. Recommendations can be relatively easily adjusted if macro policy/performance diverges widely from these assumptions.

Given this broader stabilization, revival of a portion (some 50%) of large-scale industry production is considered to be obtainable. The overriding present constraints to revitalization, identified by all companies are acute shortages of imported raw materials and spare parts. The immediate underlying problem is lack of access to foreign exchange. In addition, many companies could not raise working capital to purchase foreign exchange even if it were available/allocated. Underlying the working capital shortages are (past and present) pricing policies and regulations, management deficiencies and a series of related problems elaborated below. It is argued that the foreign exchange, working capital, pricing and management constraints must be attacked frontally if any rapid expansion of production is to be achieved. Along these lines, main recommended measures are:

1. Rapidly allocate approximately $ 100 million to key basic-needs. revenue-generating and export companies, and to small-scale industry. Available information on allocations and suggested priorities is set out in Table A. If foreign exchange availability does not permit this level of aggregate allocation, allocations to lower-priority products/companies should be eliminated. The list of specific company allocations and priorities should be completed quickly by the Ministry of Industry, in consultation with UDC where appropriate. Final allocations should be checked by Planning and the President's Office. The main criteria deciding priorities should be the extent to which the product is a basic need and net revenue-generating effects for government - including beverage and tobacco industries. Linkages to other priority industries, and net foreign exchange savings should also be considered.

2. Make budgetary provision for Ush 20 billion for UDC and other companies in support of working capital needs which companies can not meet by borrowing. These estimates come from UDC and extrapolations from limited company interviews - they are in urgent need of verification/adjustment through Industry/UDC consultations with each of the company in question. The mechanisms will also vary among companies; equity infusion, loan guarantee and writeoff (or otherwise lifting). Commercial Banks especially foreign ones should cooperate more in credit extension for industrial rehabilitation than has hitherto been the case.

Mechanisms should also be worked out immediately by Industry/UDC, in consultation with companies and lending institutions.

3. Direct/enable firms to alter pricing policies, and particularly cease or re-organise administrative price regulations so that companies charge market or prices that allow them adequate profit margins to generate more resources internally for expansion.

4. Rapidly complete management review and corrective measures in UDC companies, including dismissal of incompetent and corrupt managers, and resolve management problems in a few other cases (some details below).

There are clearly some controversial issues here. In particular, there is resistance in many quarters to effective price deregulation on grounds that it will be inflationary; traders will continue to get excessive margins and consumer prices will rise proportionately to producer prices. This is argued to be unlikely where there is significant competition from imports or other domestic producers of similar goods - on brief examination, the vast majority of cases. For financing working capital needs, the alternative is argued to be increased budgetary provision for equity infusion and loan guarantees.

Many companies also have a workforce with long experience and perspective on company operations. It is argued that this resouce can be better utilized. As union organization is reported to be in disarray, it it recommended that worker commitees or similar organizations be established to advise on discipline, productivity, management and planning, and to initially provide a further check in the system against poor management and malpractice.

On information available, it is estimated that these measures can revive capacity utilization, for firms covered, from under 20% to over 50% in a year's time. The foreign exchange allocations and working capital provisions are for imported raw materials and a bare minimum of spare parts; these were identified as the major short-term constraints to production expansion by all firms visited.

Further expansion of production will require considerably large rehabilitation and expansion investments, along the lines of the Investment Plan (Industry Project Profiles). Much of the required project funding is lined up with donors, and should be forthcoming if the macro policy which emerges is sufficiently acceptable. In this eventuality, capacity utilization could reach levels of 75% in 3-5 years, together with significant capacity expansion. With lower donor response, rehabilitation and expansion investment would fall heavily on budgetary funding, resources (unlikely) permitting. More is said below about priorities among projects in the investment plan; they will certainly have to be sequenced. An urgent requirement is to obtain a highly qualified expert in project appraisal and budgeting/public finance; the present project profiles show alarming errors regarding project impacts (net foreign exchange, net government revenue), and show no recognition of the need for sequencing and, hence priority setting. Given budgetary and borrowing constraints, a simultaneous launching of this entire investment program would be disastrous, even with major concessional donor funding.

There are several less crucial issues and measures which are argued to nevertheless be important to success in immediate expansion of industrial production.

1. Interest rates will have some bearing on borrowing capacity and practices of firms, given the apparently large degree of money illusion still in the system; high nominal rates are perceived to be damaging to debt servicing capacity for many of the firms visited. There are also reports that negative real rates are detering banks from lending, particularly long term. Whatever the macro framework and interest rate po there appears urgent need to brief senior managers of key companies on fundamentals of loan financing. In part, their concerns have been justifi in that past production declines and price controls have damaged debt repa capacity in spite of generalized rapid inflation and negative real interes

2. The level of the exchange rate is also perceptually important. Given successful implementation of the major measures listed above, this should not be a key issue. But all firms believe they will be damaged by getting the preferred rate, and several genuinely expect disaster if they Again fears are partly justified by past production and reduce undue pre-occupation with dual rates as a major source of problems. And again, quic senior management education/briefing would seem essential.

3. A related point is the need for a rapid review of effective tarif protection levels for producer-goods produced domestically. There are one cases identified (i.e. hoes produced by UGUMA and Chillington) where impor come in at the preferred rate and producers are not sure if they will get the preferred rate on imported inputs. Here, their concerns over the dual are justified. There is a related issue here of imports; 7 million hoes a reported to have been ordered. This appears enough for the entire domesti market for two years. While hoes are badly needed, care should be taken, particularly in 1987-88, not to undermine new production capacity being installed at UGUMA and Chillington. Further, once the future exchange ra regime is decided, very rapid action will be needed to ensure adequate (b not undue) effective protection for domestic producer-goods industries. T capacity and machinery for this review should be established now, in adva requirement. The relevant methodology is outlined in IBRD's "Uganda Industrial Sector Memo" of September, 1985. This study indicates negativ effective protection rates (EPR) in 1984 (Estimated) for 17 companies producing beer, fabrics, shoes, paper products, timber, vehicle batteries, asbestos products, matresses, wheat flour, iron sheets, rolled steel, emulsion paint, biscuits and sweets. For 70% of these products, "high protection to inputs (which reduces value-added at domestic prices) out-weighed protection to output (which was eroded by price controls)". The remaining products actually had negative value added at domestic prices. macro and industrial policies which emerge in the near future will affect the parameters of EPR calculations; these calculations should be updated soon as the new policies are decided, with assistance from the IBRD or elesewhere if necessary.

4. Domestic goods have also, on occasion, been undercut by a) aid-subsidized goods and b) imports for which duty was avoided. The mechanisms for stopping/preventing both situations appear to need strengthening, including more general measures to eradicate smuggling.

5. There are several ownership and management issues which need to be resolved quickly. Some appear to involve the Madhvani family. In two cases, internal family ownership fights have unduly delayed any progress on revival or rehabilitation; all possible leverage by government appears warranted. A third case involves the abandoned bottle-making plant. While this operation does not figure in immediate industrial revival plans, importation of bottles has been costly and problematic for breweries and soft-drink manufacturers. Most importantly, the E.A. Steel Corporation, while majority government owned, is by initial agreement managed by Madhvani-appointed expatriates whose performance has been reportedly very poor. Time has not permitted detailed investigation, but this is a key supplier to other priority industries. If warranted, a highly qualified Government manager should be made Chairman of the board, and management put on notice of dismissal if company performance is not satisfactory within 4 months.

There appear to be several other cases where ownership problems are hindering progress. General Equipment is one case identified where present management cannot raise working capital due to unresolved ownership, and there are reported to be many similar cases. According to Industry, there have been many problems with the Verifications Committee, and a new one is in process of being formed. In urgent cases where ownership still may not be resolved quickly, it is recommended that interim arrangements be made, such as working-capital loan guarantees, by Government, for existing management, to allow operations to resume.

6. Many companies report that accumulated debts are hindering present borrowing capacity and operations. Local cover provisions (above) are believed sufficient, in the aggregate, to put selected companies on a resonably sound footing, but the most appropriate mechanisms for ensuring availability of working capital, taking account of accumulated debt, need to be worked out rapidly on a case-by-case basis. Options include equity infusion, new loan guarantees, resumption of repayments by Government and write-off of bad debts where negotiable with creditors. It is recommended that UDC be consulted immediately on this issue, in the context of overall UDC-company financing consultations recommended above.

7. It is reported, and here assumed, that there is sufficient liquidity in the banking system to cover immediate borrowing requirements, including working-capital borrowing by the industrial sector. This needs rapid confirmation. Integrity (corrupt practices) of some financial institutions has also been raised; this may warrant review and remedial measures.

8. One or two instances of serious infrastructure (power, water) failure have been identified. One company (Hima Cement) is purchasing a back-up diesel generator. Another (UGUMA) has sufficiently large intermittent power requirements to overload the system and damage production equipment. Such situations need quick resolution as they arise.

Finally, successful implementation of all policies and measures will require a capacity for bureaucratic co-ordination and rapid action which does not demonstrably exist. It is suggested that a Presidential body be established without delay, and be given visible authority and support to spearhead and co-ordinate the Industrial Revival Program.

It is argued that these measures can succeed, if implemented, in reviving a portion of industrial capacity. In particular, they address most currently identified constraints, as well as the main reasons for the faltering of industrial recovery in 1983-85. Less optimistic views h been heard, particularly concerning the ability of present industrial man to get industry moving, and the fundamental viability of some of the indu in question. There is insufficient time, however to complete major manag training or conduct detailed feasibility studies, although all possible s term efforts are important. Given the importance and priority attached t industrial recovery, there appears to be no good alternative to proceedin on a concerted basis.

A distinct caution should, however, be sounded. While this recovery program is argued to be feasible, it is not clear that its initial impact result in a doubling of production in perhaps 75% of the large-scale industrial sector. The small-scale sector (50% of industrial value added is at capacity and although production will expand, growth will be slow. The industrial sector contributes some 5% to monetary GDP and some 10% to total goods production. Thus, optimistically, if half of industrial production were doubled, GDP would be increased by some 2.5% and goods production by some 10%. While very significant, this would not be expect to have a dramatic impact on aggregate availability and price of goods, particularly as a considerable part of the increased production will (desirably) be at the expense of imports. Net foreign exchange savings ar also presently not estimated, although probably positive. In individual markets, one would expect significant price-reducing (or price-containing effects only where production expansion is large relative to the present (domestic goods plus imports) market. On brief examination, this might be the case for under 1/3 of the products covered. In short, analysis is very incomplete, and conjecture about the gaps does not support the view the initial recovery program will have a dramatic short-term impact on re inflation or saving foreign exchange except under the price control scena discussed in section (iv) of this Report. But it does appear to be a necessary start, and should be seen in the light of larger potential futu benefits.

II Further Short Term Issues

There are a few other high-profile issues which need to be addressed without delay, but may have only marginal impact on immediate revival.

UDC has been firmly instructed to proceed with study and implementati of privatization plans, with the aim of selling some companies and/or se part ownership to private investors or the public at large. UDC is agree envisaging funds being generated for further industrial development initi although loyalty in the UDC is deep-noted. While agreeing that privatisa should be actively evaluated for substantive reasons, and visibly undert for reasons mainly of donor response, immediate results should not be ex

Exceptions would be cases where there is no other way of reactivating production from existing assets in the near future or where privatization would speed the process; no such cases have so far been identified. For present UDC companies, some initial revival is argued to be warranted prior to privatization. The argument is based on the need for speed in revitalization, the normally lengthy process involved in privitization, and the unattractiveness of most companies. In short, proceed with recovery while proceeding with privatization, and make the process visible to Ugandans and donors. As a related point, it is suggested that hotel and ranching operations, now under direct ministry control, be transferred (back) to UDC. Experience with ministry management of commercial ventures has been almost uniformly bad, and privatization prospects appear better under UDC.

2. Industrial Wages

Over time, industrial wages are reported to be quite closely tied to public sector wages, so that even higher level wages are now below survival level. Most companies add some combination of food, accommodation, schooling (rarely), health care, and payments-in-kind to provide an overall survival package. Total compensation roughly keeps pace with inflation of necessities for all contacted companies except one. Workers also pursue other activities - food growing, other jobs, etc. - to subsist. This undoubtedly reduces productivity in industry. While other analyses address wage issues in detail, it is noted that, as industrial recovery proceeds, there appears to be a need to adjust wages significantly upward or raise the purchasing power of present incomes if only to increase productivity.

3. Foreign Investment

Foreign investment will be important to medium-term rehabilitation and expansion. Review of the current legislation and incentives is proceeding with a view to near-future announcement of a new package; it is highly desirable that delay in this process be minimized. Active encouragement of foreign development should be visible at all levels of Government.

4. Non Traditional Exports

Present and past industrial exports noted from documents and discussions are: fabricated metal products (UGUMA - presently exporting to countries in the region); textile yarn (Uganda Spinning Mill - set up to export to the USSR, but looted and not currently operating); plastic ware (Ship Toothbrush Ltd. - beginning to export to western Kenya); and waraghi (E.A. Distilleries - formerly exporting to the USA). Further prospects suggested as realistic include: phosphate fertilizer (TICAF - regional production by Uganda recently given PTA approval, but project viability is questionable and other countries such as Zimbabwe may move first); juices (pineapple); instant coffee; salt (Lake Katwe Salt, if technical problems ultimately permit rehabilitation); asbestos sheets; fishmeal and fishoil (Tufmac); canned meat (Uganda Meat Packers, although feasibility of plant rehabilitation is in question); finished leather products; ceramics; and processed/dried vegetables. Some non-traditional exports will (re)emerge or expand as recovery proceeds. Others can be expected to be identified and pursued by private companies. At present, no immediate government resources or measures have been identified as needed to support expansion of non traditional exports, other than allocations for those companies listed in Table A. It is further

suggested that all future industrial export projects, envisaged to require government resources, be very thoroughly appraised before any commitments made. This applies equally to many import-substitution projects being suggested for the long run (power alcohol from sugar/by-products, vehicle assembly) whose potential for viability is probably nil, and whose perform in the region has been disastrous.

5. Asset Revaluation

The deterioration of book value of assets, with inflation, is regarded by many companies as seriously affecting ability to borrow. It should not, if both companies and banks were operating effectively. Commercial banks, in particular, are argued to lack interest in company prospects and performance, prefering assets as collateral and a hands-off role thereafter. To the extent that this will continue, asset revaluation may be helpful, particularly as a catch-up for past years of inflation. UDC is presently revaluing assets of most of its companies and several private firms have recently done or are doing likewise. With continuing inflation, however, revaluations are continuously outdated and should not be regarded as major contributors to educate Banks management enhanced creditworthiness.

6. Skilled Manpower Supply and Training

On questioning, none of the companies contacted indicated shorta of skills as a serious constraint to production expansion. Nevertheless, gaps will appear as broader rehabilitation and expansion proceed. Other analyses examine training priorities, and appropriate identification and training activities should unquestionably proceed in parallel with production expansion measures.

III Long Term Industril Strategy and Policy

Time has not permitted an adequate analysis of this subject. Propos by the Ministry of Industry (11th March, 1986) are a limited but reasonab start although many projects, as noted above, are questionable and will require thorough appraisal where governmental resources are envisaged. The focus on resource-based industries appears appropriate, but not to t exclusion of emerging skills-based products. Planned technology develope efforts warrant their renewed emphasis. However, the small-scale indust strategy appears unduly top-heavy and bureaucratic. Identifying needs an possibilities on the ground is essential; prospects for expansion and technology assimilation/development are major, and support needed from government is minimal if based on close contact with the industries and f

Without detailed reviews of project analyses, it is difficult to suggest priorities among industrial projects contained in the Investment It nevertheless appears very improbable that all these projects can be undertaken simultaneously; while donor funding provides a significant portion of total funding in most cases, local funding requirements are substantial and foreign loans need to be repaid with interest. Sequencin projects will thus certainly be required in the framework of yearly budgetary and foreign borrowing constraints.

Government has indicated three major criteria, in addition to basic project (socio-economic) viability, which should be used in assessing priorities. The first is the extent to which the output is a basic need; specific industrial products indicated to be in this category include salt, sugar, blankets, hoes, textiles and soap. The second major criterion is net foreign exchange saving/earning. It is notable that Project Profiles in the Investment Plan make major claims for foreign exchange savings, but do not mention outlays required to achieve these savings. It is extremely important that these calculations be done correctly as part of project appraisal prior to further project commitments being made; hence the above recommendation for technical assistance in project appraisal. The third major criterion is net government revenue earned. Obvious candidates are the beverage and tobacco industries. Again however, it is crucial that net revenue calculations be done correctly as part of project appraisal. Projects that promote an integrated and self-sustaining economy: Agro-Industries - Industries like steel which produce inputs for others.

Given limited information available, only a crude start can be made at suggesting project priorities. Table 1 summarizes the results of a set of calculations in which major industrial projects in the Investment Plan were crudely assessed in terms of the three criteria outlined above. Local funding requirements and project linkages were also taken into account. There are also some cases where "Uganda Industrial Sector Memo" of 1985 flags the following production processes as fundamentally economically inefficient in 1983, even with capital costs treated as sunk. (Culculations of Domestic Resource Cost need updating, but the related projects need to be assessed with particular care.):

-hessian ckoth (Uganda Bags)
-cover paer (Papco)
-bicycle tubes (Dunlop)
-domestic cables (Cable Corp.)
-paper sacks (Associated Paper)
-ploywood (Kirira Sawmills).
-lime and cement (Uganda Cement)
-cotton seed oil (Emco)
-gloss paint (International Paints)
-fishnet (Uganda Fishnet)

Table 1 leaves out many of the 33 industries/companies included in Project IT-07. While most of these companies are earmarked for support in the immediate recovery program, to get them back on their feet, it is recommended that most not be given priority for rehabilitation and expansion in the Investment Plan, except for those products (on Table 1) indicated as basic needs or having important linkages with other priority industries. The priorities indicated in Table 1 can and should be questioned. In the end, there is no good alternative to thorough appraisal and sequencing within future budgetary and borrowing constraints.

MINING

C O N T E N T S

1. Background

The mining industry in Uganda has been on the decline since 1970 as is clearly shown in table 1.

The principal reasons for the decline are:

(a) the uncertainty and ill-conceived changes in the investment codes instituted by the May 1970 Nakivubo declarations and axacerbated thereafter during subsequent regimes.

(b) Inadequate financing to support mining operations.

(c) World inflation, heightened by the petroleum price rises of 1973 resulting in increased mining operations of particulary developing countries. Actually as the industrialised countries paid more for their petroleum imports , they passed on these increases through their exports of manufactured goods to non-industrial countries. It has to be appreciated that Uganda as a developing non-industrialised country had to import spare parts,equipment, machinery, consummables such as explosives, chemicals, fuel etc. at ever increasing costs. Cut backs in needed replacements e.g Jinja Copper Smelter were instituted resulting in inefficient operations and subsequently to a decline in mineral production.

(d) Depletion of the rich and easily accessible ore reserves.

(e) Higher labour costs at especially the small tin and wolfram mine operations located in the South-West of Uganda.

(f) Breakdown in infrastructural services of especially the East African railway System which resulted in the increase of freight charges to and from Mombasa port.

(g) Absence of managerial and technical skills resulting from many qualified Ugandans leaving the country during the last 15 years.

2. The major minerals whose production could add significantly to the country's economy.

(a) COPPER

(i) Rehabilitation of Mining Operations at Kilembe:

The success of copper mining at Kilembe depends on the succe implementation of three operations. These are:-

(a) The extration of ore from the ground.

(b) Mineral processing involving ore concentration to form copper sulfide concentrates.

(c) The smelting of copper sulfide concentrates into blist copper.

All the three activities deteriorated since 1973 until mining operations were haited in April, 1979. It should be appreciated that a lot of money in the form of foreign exchange will be required initially to replace or to repair worn-out equipment and machinery.

Also it should be noted that the industry contributes substantially to employment and to foreign exchange earnings as indicated in table 2 and also helps in the development of skills which can be utilised in other industries; a necessary and desirable element in the development process.

TABLE 1: MINERAL PRODUCTION

	Unit	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985
Gold	Grams	93	67	-	18	68	20	32	365	489	62	282	304	215	1	-	-
Cassiterite (Tin Ore)	Tonnes	182	189	113	100	246	88	12	26	7	1	1	-	3	25	..	..
Wolframe (Conc)	Tonnes	235	210	227	172	188	89	71	69	47	8	9	2	7	7	..	..
Beryl Ore	Tonnes	367	221	73	133	156	40	14	21	-	-	-	-	-	-	-	-
Blister Copper	Tonnes	16958	15731	14071	9643	8912	8231	5366	2273	1302	762	-	-	-	-	-	-
Apatite	Tonnes	30318	15024	14582	17451	13501	4892	2116	..	..	..	..	..	..	..	..	..
Bismuth	Tonnes	..	13.6	1.2	2.8	..	..	..	..	..	..	..	..	..	..	..	..
Columbite-Tantalite	Tonnes	..	3	4.1	1.8	6.5	5	2.10	..	..	..	..	..	..	..	..	..
Limestone		21278	291361	232245	199771	156195	na	na	35305*	..	..	..	..	..	..	..	..

Notes: Kilembe stopped production in April, 1979 for the lack of spare parts.

(*Provisional)

"--" means Nil
".." means not available

Source: Geological Survey & Mines Department,
Kilembe Mines Ltd.

(b)	1956	1960	1964	1968	1972	1976	1979/80	1987 (d)
alaries (Ug. SHs.)	7,460,000	14,690,000	18,862,000	29,403,380	33,182,000	..	..	
US $	1,044,380	2,056,560	2,640,630	4,116,390	4,278,780	..	..	5,000,000
(c) ocal purchases (Ug.Shs.)	1,044,380	1,577,630	3,928,040	4,523,080	2,871,050	..	..	3,000,000
US $								
verseas Purchases US $	1,892,762	1,695,926	1,070,139	1,914,545	1,854,288	..	..	4,000,000
opper exports (tonne)	..	14,752	18,265	15,602	14,071	500	184	8,500
alue exports US $	7,947,300	9,614,200	17,737,260	19,443,230	15,319,870	5,772,192	296,700	13,000,000
Average cost per tonne (US $)	..	652	971	1,246	1,089	1,154	1,612	1,500

Notes:
a Includes foreign exchange element: Expatriate staff
b Includes fuels and oils etc. costs requiring foreign exchange by oil companies
c Includes manufactured good which have foreign element
d Projected
.. Not available
- Nil

Source: Kilembe Mines Ltd., June 1986.