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EAST AFRICA AND THREE INTERNATIONAL COMMODITY AGREEMENTS:

The Lessons of Experience.

by

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East Africa relies heavily on the export of agricultural commodities for foreign exchange. Three of East Africa's most important agricultural exports have been subject to quotas under international commodity agreements: the International Coffee Agreement, the informal sisal agreement, and the informal tea agreement. This paper focuses on a hitherto neglected aspect of their workings: the distribution of gains from membership among exporting countries. In reviewing the major developments under each agreement, the value of commodity agreements to East African countries is questioned. Particular attention is given to the determination of export shares, which are shown to be difficult to change once allocated. The need to take account of employment effects as well as possible income gains in calculating costs/benefits of membership of commodity agreements is emphasised.

INTRODUCTION

Pressures for international commodity agreements that seek by means of export restriction schemes to raise the aggregate export earnings of producing countries are increasing. Such pressures reflect (a) the willingness of consumer countries to make income transfers to poorer countries through this politically acceptable medium, (b) the wish of some producing countries to protect their export crop industries from unwanted competition from new producers, and (c) the desire of international civil servants to promote development from developed country bases.

The purpose of the present paper is to strike a discordant note in this otherwise agreeable congruence of interests by focusing attention on the distribution of gains from international commodity agreements among producing countries, with particular attention to the relative shares of the gains that the three East African countries have obtained or are likely to obtain from the agreements that affect three of their principal export crops: coffee, sisal and tea. A major objective is to draw the lessons of experience from membership of the coffee and sisal agreements for East Africa, so that a strong stand may be made in negotiations with countries pressing for a formal tea agreement. A subsidiary objective is to consider the effects of the agreements on rural employment in the East African context.

The three agreements in question are the International Coffee Agreement, (ICA) now in its second five year term, the informal sisal agreement (ISA) under the auspices of the Consultative Sub-Commitee of the F.A.O. Study Group on Hard Fibres which came into effect in January 1968, and the informal tea agreement (ITA) under the F.A.O. Consultative Committee on Tea, which has been in operation just over a year. While the language used to phrase the stated objectives of each of these agreements differs, the implied objectives and means of achieving them are the same: namely, to increase export earnings by getting producing countries to act together quasi-monopolistically in restricting supply against an inelastic demand. Thus the 1968 ICA under Article I has the stated objectives of eliminating fluctuations in coffee prices and increasing the purchasing power of coffee exports through higher and equitable prices, while the Study Group on Hard Fibres at a Producers' meeting in July 1967 noted the possibility of developing market sharing arrangements through control of output in major producing countries in

order to give the world sisal and henequen market greater degrees of stability and viability, and the UNCTAD Secretariat, in a memorandum prepared for the Third AD HOC Consultation on Tea, writes of stemming the decline in the general level of prices in order to improve the long-term rate of growth of earnings from tea exports.

AGREEMENT GAINS AND THEIR DISTRIBUTION

Formally, the present value of a restrictive export agreement to an individual producing country is the discounted value of the future differences in earnings as a result of the agreement plus the discounted value of the resources released from the export crop in question plus whatever benefits are expected to accrue from having greater stablity of export earnings, a factor considered to be of importance to a developing economy open to external trade disturbances. Expressing the problem in this way highlights some estimation considerations additional to that of predicting prices and quantities exported in the, with and without agreement situations. Our concern here, however, is not so much with these longer run effects, nor with the difficult task of estimating prices in without agreement situations, but to consider how the gains from the ICA and the ISA have been distributed between East Africa and the rest of the world, and the implications for East Africa's collective policy stand vis-a-vis a formal tea agreement.

A major contention of this paper is that the distribution of gains from restrictive export agreeements tends to benefit the larger producing countries, because of their considerable voting power in the decision making forums. Ab initio large and small producing countries have unequal strengths in determining whether an agreement should continue or indeed begin. For large producing countries the choice is between an agreement and no agreement, since their exclusion from an agreement would make it inoperable. For small countries the choice is membership of the agreement or non-membership, since their membership may not be essential for the continuation of the agreement. Thus large producing countries can force an agreement upon small countries, who, if they had the choice would prefer no agreement, but are presented with a membership, non-membership alternative. In practice there may be no alternative to membership since if all consuming countries are party to the agreement there are no alternative markets.

Disparities in bargaining power raise the possibility of a large producing country initiating an agreement, and disbanding it again to suit its own convenience. For example, during the period of the present International Coffee Agreement the Brazilian coffee industry is being subject to substantial locational changes away from frost prone zones to more equable areas. It could be argued that Brazil is using the agreement to preserve her relative market share while improving her long term competitive position. Under free market conditions the potential long term advantages of this production shift might be jeopardised by shortfalls in exportable supplies with consuming countries making good their needs with coffee of another type. Shifts in consumer taste are difficult to reverse.

It is significant that Ceylon, the world's largest exporter of tea, is currently pressing hard for an International Tea Agreement while embarking on an extensive replacement of old tea stands, while at the beginning of the informal sisal agreement in 1968, Tanzania, the world's largest exporter of sisal, was starting a rationalization programme for its recently nationalized estates under the Tanzania Sisal Corporation.

Thus one precondition for the setting up of a commodity agreement seems to be a vested interest by the largest exporter of the commodity for a period of reduced competition, where market shares are determined on the basis of past export performance rather than current exportable supplies. Another precondition seems to be that the price of the commodity should have fallen continuously for a period. Given that the initiative for the setting up of international commodity agreements rests with producing countries, and that consuming countries aquiesce because of aid considerations, it is interesting to note that the International Coffee Agreement, the informal tea agreement and the informal sisal agreement came into being after periods of continuously declining prices.

EAST AFRICAN EXPERIENCE UNDER THE COFFEE AGREEMENT

The distribution of gains from the ICA relate directly to the initial allocation of quota shares, which in common with the ISA were determined on the basis of past export performance. This method automatically favours large producer countries with established mature

industries, as opposed to countries whose industries are immature and just embarking on a rapid growth phase. The years chosen to calculate basic export quotas for the 1963 ICA were 1959/60, 1960/1 and 1961/2 for an agreement that began in 1963. That the choice of this method for the determination of quota shares favoured established producer countries may be illustrated from the varying experiences of the three East African countries under the ICA. None of these countries' industries has reached the stage of maturity but their different stages of development serve to make the point at issue. Table 1 shows the production growth rates for the period before the agreement and during the agreement, together with absolute annual increases in exports for the before and during situations.

It may be observed that for Uganda and Kenya, production growth was higher before the agreement than during it, but for Tanzania the beginning of the agreement marked the start of a period of increased production growth. To simplify, in 1963 Uganda and Kenya had relatively mature industries in comparison to Tanzania. A consequence for Tanzania was a small export quota relative to her production so that a high proportion of her exports had to be shipped to the lower price non-quota markets.[1]

The effects on unit export values may be seen by comparison of Figures 1, 2 and 3. While it appears that for all three countries the rate of decline in export prices that occurred in the seven years prior to 1963 was arrested, the effects of the agreement on individual countries' average export prices in the period 1963 to 1969 vary from an annual increase of £3 per ton for Uganda, to no apparent effect for Kenya, to an annual decline of nearly £6 per ton for Tanzania. No information on the grade composition of output over this period was available to check on the extent to which changes in average export values reflected quality changes, but it is assumed these were small

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1. The ICA acts as a discriminating monopolist in that it recognises an 'Annex B' list of countries as having low per caput coffee consumption, and permits exports to these markets free of quota restrictions. The Annex B list acts as a safety valve to some extent in relieving pressure for reallocation of quotas, but some of the Annex B countries have been party to the so-called coffee tourist trade, and the list of countries is becoming steadily shorter.

in relation to the non-quota market effects.

Thus far the argument concerning the distribution of gains has been limited to within East Africa comparisons. The argument may be extended, however, by considering East Africa's effective quota share in comparison with the largest producing country, Brazil. Table 3 shows these shares over the period 1964/5 to 1970/1 together with shares of world production.

While production fluctuations in the case of Brazil are of sufficient magnitude to indicate caution in speaking in terms of trends, it may be noted that while East Africa's share of world production increased over the period 1964/65 to 1970/71 by three percentage points, her share of quota exports increased by less than one percentage point: this despite significant increases in basic export quotas for the three countries at the start of the 1968 Agreement (see Table 4). Conversely, Brazil whose production share fluctuated from 30.82% in 1964/5 to 19.28% in 1970/1, suffered only a one percentage point reduction in export quota share. Such a finding tends to support the hypothesis that the distribution of gains from commodity agreements favours the large producers.

In the period of the 1963 Coffee Agreement, it is reasonable to assume that the effects of the agreement from the individual country viewpoint were limited to export prices, because of the possibility of selling to non-quota markets should production exceed the country's export quota. In the 1968 Agreement, however, not only have non-quota markets been reduced and the regulations governing shipments to Annex B countries been tightened, but measures have been introduced that will have the effect of restricting the growth of productive capacity of all countries. Thus comparison of the costs and benefits of the agreement for the individual country becomes as much a matter of estimating what production in the without agreement situation would be as the without agreement level of prices. Under Resolution 206 of the International Coffee Council each country was assigned a production goal for 1972/3 based upon an estimated annual increase in world demand of 2.5% applied to each country's new basic export quota, with the requirement that each country should prepare a national coffee policy plan showing how it proposed to bring production in line with this goal with the aid, if need be, of the ICA's Diversification Fund arising from

levies on producing countries' quota exports.

It is of some interest to compare these production goals for the East African countries with their own estimates of production potential. (see Table 5).

For Tanzania and Uganda it is clear that substantial adjustment problems, as defined by the International Coffee Organization, exist, and either drastic measures such as tree uprooting will take place, stocks will accumulate or the rules and regulations of the ICA will be infringed. The lesson of experience therefore is that the initial allocation of export quotas is crucial. Small producing countries with rising production trends should endeavour to secure, right from the start, recognition of their special position in terms of a quota share proportional to their expected production at the end of the agreement.

EAST AFRICAN EXPERIENCE UNDER THE SISAL AGREEMENT

The important difference from East Africa's viewpoint between the Coffee and Sisal Agreements is that in the former, East Agrica has a relatively small share of the world market (with or without the agreement) while in the latter, East Africa (and Tanzania in particular) has the largest share of the market. This being the case, one might expect from the foregoing discussion of Brazil's influence over events in the coffee agreement, that East Africa would have been able to exert similar influence over the informal sisal agreement to its own advantage. Unfortunately this does not seem to have happened as we now discuss.

In 1967 the F.A.O. Study Group on Hard Fibres established a Consultative Sub-Committee whose function was to set up an informal commodity agreement of the export restriction type. The modus operandi of such an arrangement was outlined as follows:

> "On the basis of figures of import requirements to be provided by individuals or groups of importing countries for a given period ahead and within an export price range to be informally agreed with the importing countries as representing a viable and acceptable level for both sides of the industry, the exporting countries would agree, again informally, on a system of quotas calculated to meet the full level of requirements stated by the importing countries."

As the careful phrasing of the foregoing statement suggests, the producing countries were at pains to assure consumers that there would be no 'shortage' of supplies. But the consuming countries themselves made sure of this by submitting a generous estimate of their requirements for 1968 which the producing countries accepted as their global export quota for that year. It was hardly surprising that at the June 1968 meeting of the Sub-Committee it was observed that the export quota had had no apparent effect on the level of prices. Instead of reducing the quota it was decided to implement a system of minimum prices which would increase in steps to target levels by August 1969. A price differential of £5 per ton was agreed between Brazilian and East African sisal.

This meeting in a sense was the high point of the agreement from the producers' viewpoint, and gave rise to a spate of buying activity which continued through August. However a lot of the impetus that had been gained in June appears to have been dissipated at the November 1968 meeting and thereafter was not recovered. First, the producing countries announced a provisional quota for 1969 of the same size as for 1968. In view of the declining size of the hard fibre market, and evidence already accumulating that the 1968 quota was itself too large to have any effect on prices, this statement was an unnecessarily early indication to buyers that there would be no problem in getting supplies in 1969. Secondly, the new minimum price for E.A.R. was set equal to the then current price of £75 per long ton, and the ratchet mechanism agreed at the June meeting was quietly forgotten although prices were still well below both the consumers' and producers' indicative ranges. Thirdly, in doing away with the ratchet mechanism the differential between Brazil and East African prices was also dropped. This meant in effect that there was a minimum price for East African but none for Brazil.

The results of this were soon apparent. With East Africa holding a price umbrella, Brazilian sales were reported as surging ahead while the demand for East African remained quiet. This state of affairs continued through until the fourth meeting of the Consultative Sub-Committee in April, 1969. At this meeting the differential for Brazilian was reinstated at £66 per metric ton for Brazil No. 3 in relation to an East African Rejects minimum price of £72 per metric ton. An attempt to put teeth back into the agreement

was made by cutting the global quota and national export quotas by 9.2%. The effect of this on East African sales was only transitory, however. It seems likely that many buyers had already covered themselves for 1969 from buying cheap Brazilian, and so the activity reported in the market in April failed to carry through to May. For the next nine months market reports indicate that sales of East African remained at a very low level.

At the fifth meeting of the Consultative Sub-Committee in September 1969 no new developments were recorded apart from an expression of determination to take action at the next meeting if prices had not moved closer to the indicative range. The minimum prices agreed at the previous session were to continue and the global quota for 1970 was provisionally set at the same level as for 1969.

The sixth meeting in January 1970 was unusual in that the report of its deliberations simply records a joint statement by Brazil and Tanzania, which the "other producing countries supported". The joint statement reads:

> "At a private meeting between the delegation of Brazil and Tanzania general agreement was reached concerning the two main problems of sisal production, i.e., the demand for sisal and quotas resulting from this estimate and the possibility of reaching the level of indicative prices as laid down in the informal agreement. To maintain the system of minimum prices with a view to raise them insofar as the market will allow, it was agreed that on no account should prices be lowered. (sic) Both countries have agreed to strengthen their efforts to control trading outside the terms of the agreement. It was also agreed that joint consultations under the auspices of the Consultative Sub-Committee should continue".

Shortly after this meeting prices of East African Rejects dropped from their agreed minimum level of £72 per metric ton to £60. Subsequently, in spite of frequent meetings, there has been no agreement among producing countries to implement either an export quota system or a system of minimum prices. Instead there are face-saving reports like the one that followed the June 1970 meeting:

> "The producing and consuming countries represented at the session decided that they would endeavour to improve the present situation of the sisal and henequen market by attempting to raise current market prices between now and the eighth session in early October, and by resisting pressures to buy and/or sell below these levels. At the next session, the overall situation with regard to basic quotas for 1971 and minimum and indicative prices would be re-examined."

The foregoing account of matters decided at successive meetings of the Consultative Sub-Committee of the Study Group on Hard Fibres is given in some detail as it provides an illustration of how one country can secure an advantage over others by astuteness at the conference table, even though it does not have disproportionate voting power. Hence there is a need for careful preparation of briefs for country representatives, and the sending of strong and experienced delegations to such forums.

The need for astuteness at the conference table, and willingness to practise brinkmanship if necessary, may be further exemplified by consideration of the way in which basic quotas were determined at the start of the informal sisal agreement. It will be recalled from the earlier discussion that East African countries in the Coffee Agreement were disadvantaged in determination of basic export quotas by having immature industries with rising production trends relative to those of established producers like Brazil. For the informal sisal agreement the roles were reversed, in that Tanzania and Kenya have mature industries relative to Brazil. Thus it was in East Africa's interests to have export performance measured over a long period to increase their share of the global quota. However basic export quotas were agreed for each producer country calculated on the higher of the figures of their average export performance in two periods, either 1962-66 or 1964-66. Table 6 shows that the choice of the two periods was clearly to the advantage of Brazil, as they, with a rising production trend, chose the period 1964-66. The differences may not appear great, but in money terms the failure of East Africa to insist upon 1962-66 as the base for calculating quota shares meant a 'loss' to East Africa of £210,000 each year and a gain to Brazil of £245,000, assuming a price at f.o.b. of £70 per metric ton.

There are two other points from the experience of the sisal agreement worthy of note, both of which derive from the informal nature of the agreement. A cynic might say in relation to informal agreements that a participating country needs to give the appearance of conforming to resolutions adopted at meetings regarding minimum prices and maximum export quantities, but that because it is an informal agreement, nobody can do much about it if you do not. In this context we may question first, Tanzania's overzealous curtailment of production

in 1968 to ensure that the export quota was not exceeded, and second, East Africa's export quota fulfillment in 1968, and especially 1969, at a time when other countries were exceeding their quotas. (see Table 7).

The level of production in Tanzania in 1968 shows a considerable drop from the level of the previous year, and this may be attributed largely to the method by which Tanzania restrained exports to comply with the national quota. The reduction in production was achieved by giving each estate a sales quota, calculated on the basis of estimated production for 1968 and average production in the previous three years. From estates' returns we have an idea of what production would have been in 1968 in the absence of the agreement, for in The Tanganyika Sisal Growers' Association Report for 1967/8, the Chairman states:

> "When returned these forms revealed that estates anticipated a total production in 1968 of around 240,000 metric tons. It was clear that there had been some overestimates and a searching re-examination was carried out by the sub-committee of the information provided by all members in conjunction with planting returns submitted previously. As a result some arbitrary pruning was possible, and the final total basic quota was eventually brought down to 228,000 metric tons. A uniform reduction of 12.02% in everybody's basic quota was necessary in order to bring the total down to no more than 205,000 tons (the amount of the national quota)"..

Thus when we note from Table 7 that Tanzania only shipped 97.5% of her quota in 1968, it was not because there was not enough sisal leaf, but because of an overly restrictive internal quota system. An additional reason was that Tanzania was finding it difficult to sell from stocks at the minimum price level agreed in November, while Brazil was free to sell at any price, which being a traditionally weak seller she did. Thus the February 1969 edition of Wigglesworth's Monthly Fibre Report notes in relation to East African sales that:

> "Competition from Brazilian sisal selling at persistently low prices has caused further decline. A paradoxical situation arises through the retention of a minimum price for East African UG of £72, arbitrarily agreed upon at the last F.A.O. Hard Fibre Conference in November. Since no minimum prices were fixed for other grades and none was agreed for Brazilian sisal, the effect now is that East African UG is not competitive with Brazilian. An upward adjustment of Brazilian prices, whether by application of an obligatory minimum or otherwise, is clearly called for."

The position was rectified at the April, 1969 meeting of the Consultative Sub-Committee with a minimum price of £66 per metric ton for Brazil No.3, but the decision at the same meeting to reduce national quotas by 9.2%, which was observed by East Africa, was not observed by other countries (Table 7). In the light of this, it is perhaps not surprising that attempts to reactivate the agreement which collapsed in early 1970 have not been successful. To summarize, the following appear to be the principal lessons of experience East Africa should draw from the coffee and sisal agreements:

1. careful preparation of briefs and strong delegations for the decision-making and bargaining forums.
2. wariness of informal agreements that cannot be policed by an independent authority.
3. mustering all possible support and bargaining skill for preliminary sessions when basic export quotas are negotiated.
4. consideration of long-term objectives when it comes to restraining domestic production.

There are indications from what may be discerned of East Africa's approach to the informal tea agreement that the sister countries' attitudes have been conditioned by past unfavourable experience of commodity agreements. However it seems that Tanzania's reaction, for example, may not be in her long term interests, as we now discuss.

EAST AFRICA AND THE TEA AGREEMENT

The position of East African countries within the informal tea agreement is similar to their position within the International Coffee Agreement, in that they are small producers with industries that are still immature, in the sense that the potential exists both in terms of land and climate for considerable expansion. Thus a crucial issue is the size of their basic export quotas in relation to their production and export potential over time.

That some of the difficulties facing small producing countries were recognised by the UNCTAD Secretariat is shown by their memorandum prepared for the Third Ad Hoc Consultation on Tea in which they discuss various methods for quota allocation, including a method that would take heed of a country's potential production during the

life of an agreement. The basis on which quotas were determined for the informal arrangements among producers for 1970 has not been made explicit however.

Table 8 shows for each East African country its 1970 tea quota in relation to 1969 exports and production, and F.A.O. estimates of 1975 production. Also shown are production targets for each country according to its latest development plan.

Table 9 illustrates how estimates of each country's exportable supplies in 1975 may be estimated using the information in Table 8. Apparent consumption for 1969 is the difference between exports and production in that year. Predicted consumption for 1975 is obtained by applying a 3.5% annual growth rate to 1969 apparent consumption, the growth rate assumed by F.A.O., in forecasting consumption of tea in developing countries over this period. Exportable supplies in 1975 is then the difference between estimated 1975 production and estimated consumption. For Kenya and Uganda the F.A.O. estimate of 1975 production is taken, for Tanzania this estimate is regarded as being too conservative and the Plan figure is taken instead.

Comparing the estimates of 1975 exportable supplies for the three East African countries with an estimate of world exports of tea in 1975 of 1,500 mn lbs. derived from F.A.O. figures, Table 10 shows needed quota shares for 1975 compared with actual quota shares in 1970. It may be noted that Tanzania and Kenya need larger quota shares if they are not to accumulate stocks while Uganda's present quota share seems adequate to her needs.

The experience of the Coffee Agreement suggests that once quota shares are established they are exceedingly difficult to change. Tanzania was only able after a long fight to get an increased share in 1968/9, which was still insufficient to meet her production potential. The basis on which the quota shares were established for the informal tea agreement in 1970 is not made clear in the reports of the meetings. A cursory glance at the figures reveals however that they are not based, as were the quotas of the coffee and sisal agreements, on a strict index of past export performance, but take some account of export potential. The extent to which export potential is taken into account, however, seems to vary from country to country,

suggesting that hard bargaining behind the scenes was an important determinant of quotas. Thus it appears significant that Uganda with an estimated production according to its own development plan of 46.31 mn lbs. in 1971 was given an export quota of 54.1 mn lbs. for 1970. Uganda, prior to the Mauritius meeting of tea exporting countries in August 1969, was recognised by the established producers as being likely to firmly oppose an export restrictive agreement in view of her smallholder tea development plans, and may therefore have been persuaded of the merits of such a scheme by such a large initial quota. Kenya too was able to secure an increase in quota of 5 mn lbs. between August and December 1969, presumably as a result of behind the scences bargaining.

Tanzania has similar plans to Uganda for expansion of smallholder tea area, but is behind Uganda and Kenya in implementation. Tanzania on the other hand did not attend the Mauritius meeting and was allocated in her absence a 1970 quota of only 14.6 million lbs, compared with her actual exports in 1969 of 16.7 mn lbs. It is perhaps not surprising that Tanzania at the December 1969 Rome meeting of the Consultative Committee recorded her inability to participate in the exporters' agreement for 1970, despite a promised increase in her quota of 2.5 mn lbs., but at the same time one may question whether Tanzania's ostrich like behavior will redound to her own best interests. For what will happen to Tanzania's share of world markets if a legally-binding formal agreement does come into being which closes markets to non-members?

A further question that arises is the apparent lack of cooperation among East African countries (with their common interests in tea as strong as any other) when a united front at the bargaining table (as Ceylon and India have done) would likely have secured a larger aggregate quota. Perhaps the major exporting countries saw this danger, and 'bought off' Uganda with the large quota we have already noted.

COMMODITY AGREEMENTS AND EMPLOYMENT

Rural unemployment and underemployment are described in Kenya's Development Plan 1970-74 as "Kenya's most difficult and persistent problems". Elimination of rural underemployment is also of major policy concern in Tanzania and Uganda. It is worthy of note therefore that the three countries are involved in restrictive export

given industry structure that demand for labour will increase pari passu with output, and output will be less under a restrictive export agreement for low cost producers than without it. Second, the level of prices which will be lower in the without agreement situation may influence the structure of production. Thus MacFarquhar[5] has distinguished labour-intensive and capital-intensive methods of production in the Kenya coffee industry, and it can be argued that in a low coffee price without-agreement situation the long term equilibrium production situation in Kenya would be one dominated by low cost, labour intensive, small scale producers. For sisal and tea only the first of these considerations probably applies, but Lawrence[6] has recently argued in favour of transforming the traditional estate structure of sisal production in Tanzania into more labour intensive ujamaa villages.

It is not easy to quantify the extent of the reduced employment opportunities because this entails inter alia the estimation of export quantities (and prices) in the without agreement situations. However, an attempt can be made for coffee to set an order of magnitude on the employment effects of the ICA. The national coffee policy plans of Kenya, Tanzania and Uganda estimated the number of smallholdings growing coffee at 250,000, 300,000 and 535,000 respectively. Additionally in Kenya there are some 770 coffee estates, and in Tanzania about 200 coffee estates. In a stratified random sample of 60 coffee estates in Kenya, Waters[7] found an average employment level of 25,782 man days per estate per year, or roughly the equivalent of 100 men employed full time assuming an annual rate of 260 days per man. A sample of 300 smallholdings of mature coffee showed an average labour use of 313.5 mandays per year. If these figures are representative, the coffee industry in East Africa provides the equivalent of on farm

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5. A. MacFarquhar, A Model for Estimating Increased Employment Potential on Small-Scale Farms in Kenya. East Africa Agricultural Economics Society Conference. Dar es Salaam, 1970.

6. P.R. Lawrence, The Sisal Industry in Tanzania. Economic Research Bureau Paper No.70-13. University of Dar es Salaam, 1970.

7. A. Waters, The Cost Structure of the Kenya Coffee Industry. Ph. D. thesis, Rice University, Texas, 1969.

full time employment for about 1.5 million people. Assuming further a constant labour/output ratio as production expands, it appears that to the extent the three East African countries hold production within the Production Goals of Resolution 206, employment for almost half a million people in coffee production will be denied if we take the countries' estimates of their potential production given in Table 3 as being realistic.

The same data source can also be used to illustrate the order of magnitude of the increase in employment and saving in material inputs in Kenya if coffee production were to become the sole preserve of smallholders. Table 11 shows some of the important differences in production relationships as between estates and smallholders which form the basis of the calculation.

Taking 1968/9 output figures for estates and smallholders, and assuming that all production was by smallholders, there would be a net increase in labour input of 22.5 mn, mandays equivalent to 86,599 jobs, assuming a working year of 260 mandays. Concomitantly there would be a saving in use of material inputs in the amount of £2 mn, much of it foreign exchange.

CONCLUSION

This review of East Africa's experience of three international commodity agreements suggests strongly that small exporting countries are disadvantaged relative to the large exporting countries in formal commodity agreements and the distribution of gains from them. It appears also that exporting countries should approach informal commodity agreements with caution, and recognise that careful preparation of briefs and strong delegations to the decision making forums are likely to be necessary if a country is to secure an equitable share of the gains. In evaluating gains and losses from membership, countries need to take a long term view, as formal agreements tend to be self-sustaining with quota shares tied to initial export allocations. To date there has been insufficient attention given to the employment effects of commodity agreements, which for East African countries are likely to be negative.

Table 1. Growth in Production and Exports before and during the International Coffee Agreement

	annual producation growth rates from trend (%)		average annual increments in exports (tons)[a]	
	1950-62	1960/1-69/70	1950-62	1963-69
Kenya	10.2	5.1	1832 (.93)	1536 (.46)
Tanzania	4.1	10.8	819 (.89)	4132 (.85)
Uganda	14.3	4.8	8008 (.94)	4400 (.72)

[a] figures in parentheses are correlation coefficients between time and exports.

Sources: 1) East African Statistical Reports.
2) Report of the Working Group on Production Goals, ICO-EB-756/69.
3) Tropical Products Quarterly, Commonwealth Secretaria.

Table 2 Non-Quota Exports as a Percent of Total Exports, 1963/4 to 1968/9

	1963/4	1964/5	1965/6	1966/7	1967/8	1968/9
Kenya	10.9	7.5	7.2	15.4	3.6	6.0
Tanzania	7.1	19.4	22.4	40.6	34.2	26.7
Uganda	13.5	17.8	32.8	19.7	18.9	21.0

Sources: Report of the Working Group on Production Goals, IOO-EB-756/69.
Tropical Products Quarterly, Commonwealth Secretariat.

Table 3 East Africa's Shares of World Production and Quota Exports Compared with Brazil*

	1964/5	1965/6	1966/7	1967/8	1968/9	1969/70	1970/1
	(percentages)						
East Africa							
production	6.32	5.27	7.63	6.14	8.84	7.38	9.23[a]
effective quota share	6.06	6.32	7.05	7.23	6.95	7.00	7.01
actual quota share	7.10	7.42	7.23	6,90	6.34	n.a.	n.a.
Brazil							
production share	31.36	46.75	30.55	34.73	27.92	31.89	19.28[a]
effective quota share	38.37	37.82	37.18	35.42	38.25	37.18	37.25
actual quota share	31.77	36.92	37.16	36.38	39.22	n.a.	n.a.

[a] production forecasts made by the Tropical Products Quarterly, September 1970.

Sources: Tropical Products Quarterly, March 1968, March 1969, September and December 1970.

*Basic export quotas are decided at the beginning of the agreement and are not changed during the life of it. Basic export quotas determine each country's share of the annual global quota decided upon by the International Coffee Council. A country's effective quota is its annual quota less any deductions for past overexporting or other misdemeanours. A country's total export entitlement is its effective annual quota plus any special allowances or special export authorizations permitted because of favourable market conditions for its type of coffee. Actual exports may differ from total export entitlement if a country experiences a shortfall in production, and has no stocks.

Table 4 Basic Export Quotas under the 1962 and 1968 Coffee Agreements

	1962		1968		
	basic export quota ('000 bags)	% share	basic export quota	% share	% increase
Kenya	517	1.12	860	1.56	66.3
Uganda	1888	4.10	2379	4.32	26.0
Tanzania	435	0.95	700	1.27	60.9
Brazil	18000	39.13	20926	38.02	16.3

Source: Tropical Products Quarterly, March 1968.

Table 5 ICA Production Goals in relation to Country Estimates of Future Production

	Production Goals 1972/3	Actual Production 1968/9[a] (thousand bags)	1972/3 Trend Production[b]	1973/4 Production Estimate
Kenya	929	802	1000	1190[c]
Tanzania	810	950	1100	1200[d]
Uganda	2676	3470	3600	-

[a] Tropical Products Quarterly, September 1970.

[b] linear extrapolation of production 1960/1 to 1969/70

[c] Kenya Development Plan, 1970-1974

[d] Tanzania Second Five Year Development Plan, Volume I

Table 6 Quotas under the Informal Sisal Agreement with Alternative Past Export Performance Bases*

	Actual Quota 1968	Alternative Quota
	('000 metric tons)	
Tanzania	205.7	208.0
Kenya	56.8	57.5
Brazil	142.6	139.1

* Actual quotas were determined by giving each country a choice of two periods to calculate their past export performance: 1962-1966 or 1964-66. The figures shown under the Alternative Quota head are those that would have pertained if 1962-66 had been the period for calculation for all countries.

Sources: Study Group on Hard Fibres; CCP: HF/SC 69/Statistics No.1, June 1969, F.A.O. Rome.

Proceedings of the Second Session of the F.A.O. Study Group on Hard Fibres held in Rome in September 1967, as reported in the Kenya Sisal Board Bulletin, November 1967.

Table 7 Production and Exports of Sisal: Kenya and Tanzania Compared with Brazil* 1966-71

	1966	1967	1968	1969	1970	1971[a]
	('000 metric tons)					
Tanzania						
exports	211.9	220.1	200.6[b] (97.5)	185.0 (100.0)	230.5	-
production	225.1	220.1	196.9	209.3	202.0	195.0
Kenya						
exports	57.4	43.1	45.0 (71.3)	38.5 (77.0)	46.7	-
production	57.3	51.7	50.2	49.8	45.0	50.0
Brazil						
exports	159.0	135.3	143.4 (100.6)	153.4 (118.0)	161.3	
production	190.0	185.0	180.0	185.0	180.0	183.5

[a] F.A.O. forecasts: [b] figures in parentheses are percentage quota fulfillment.

* Production includes sisal fibre and tow. Exports are sisal fibre and tow, and sisal cordage manufactures (mainly sisal rope and twine), but exclude flume tow.

Sources: Study Group on Hard Fibres, Consultative Sub-Committee, Hard Fibre Statistics 1966-69, CCP:HF/SC 69/Statistics No.1, F.A.O. Rome. East African Trade Reports, 1969 and 1970. Kenya Sisal Board Bulletin, March 1971.

Table 8 Tea Export Quotas in Relation to Present and Projected Production

	1969 Production[a]	1969 Exports[b]	1970 Quota[c]	Planned Production	F.A.O. Production Estimate for 1975[g]
	million pounds				
Kenya	79.50	72.40	76.00	100.88[d] (1974)	108.05
Tanzania	19.35	16.70	17.10	29.03[e] (1974)	24.26
Uganda	38.75	34.90	54.10	42.00[f] (1971)	46.31

[a] Journal of the Tea Boards of East Africa, January, 1970.

[b] East African Trade Report, 1969.

[c] Report of the First Session of the Consultative Committee on Tea, F.A.O., CCP 70/3, Appendix 5.

[d] Kenya Development Plan 1970-74.

[e] Tanzania Second Five Year Development Plan.

[f] Work for Progress, Uganda's Second Five Year Plan.

[g] Third Ad Hoc Consultation on Tea, The Longer-Term Outlook for Production, F.A.O., CCP: Tah/68/3.

Table 9 Derivation of Exportable Supplies in 1975

	Apparent Consumption 1969	Predicted Consumption 1975	Exportable Supplies 1975
		(million lbs.)	
Kenya	7.10	8.73	99.32
Tanzania	2.65	3.26	25.77
Uganda	3.85	4.74	41.57

Table 10 Needed Quota Shares 1975 compared with Actual Quota Shares 1970

	Actual quota share 1970	needed quota share 1975
	(percentages)	
Kenya	5.74	6.62
Tanzania	1.29	1.72
Uganda	4.08	2.77

Table 11

Comparative Data of Smallholder and Estate Coffee production* (1965/6)

	smallholder	estate
sample size	300	60
average labour input per tree (mandays)	1.085	.027
mean farm coffee output(cwt clean)	44	975
mean no. of trees per farm	448	77492
mean no. of mandays of coffee labour per farm	313	25782
yield per tree (lbs. of clean)	1.14	1.69
output per manday (lbs clean)	1.44	4.23
material inputs per tree(shs)	.026	1.565

* A.R. Waters."The Cost Structure of the Kenya Coffee Industry" unpublished Ph.D., thesis, Rice University, is the source of the data used in deriving the components of this Table. Waters carried out a smallholder cofee survey of 300 farms randomly selected in Meru District, and an estate survey of a stratified random sample of 60 farms across Kenya. In the smallholder survey, a long pre-tested questionnaire was completed by tained enumerators, while the estate information was collected by waters, largely from estate records.

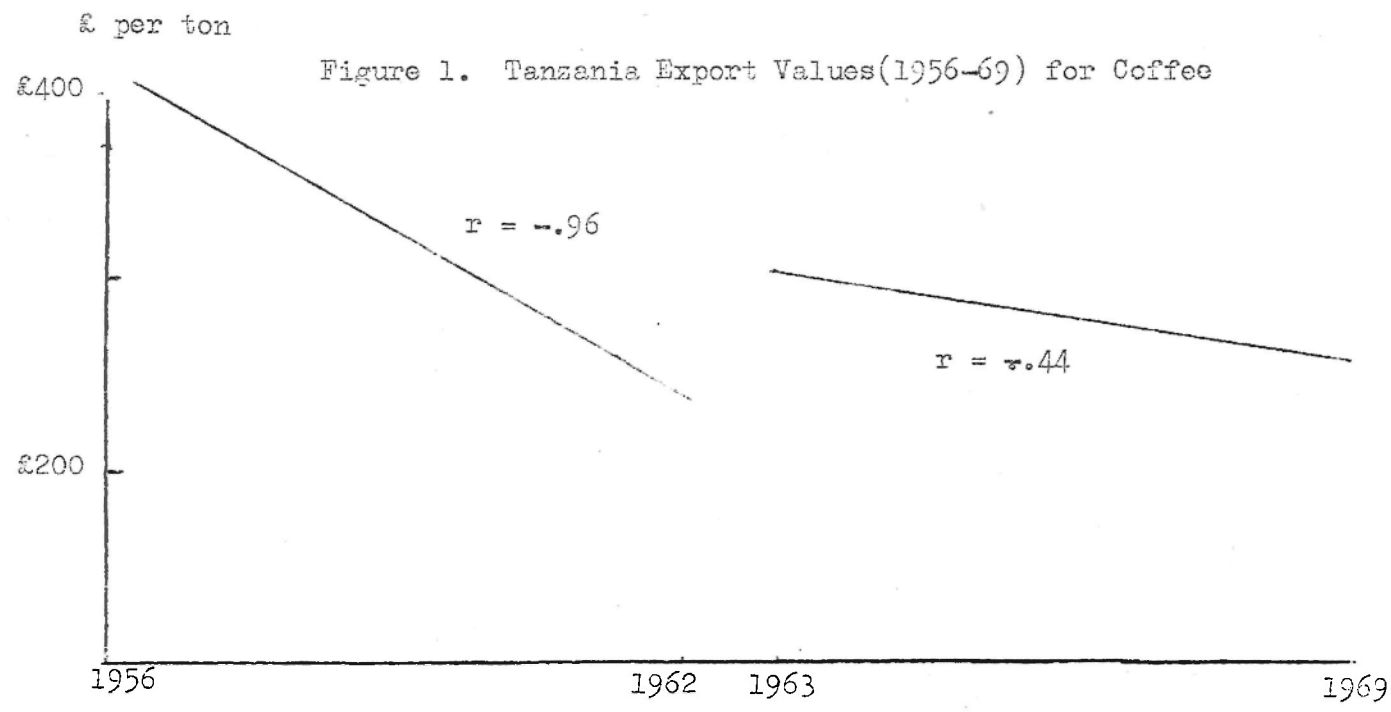

Figure 1. Tanzania Export Values(1956-69) for Coffee

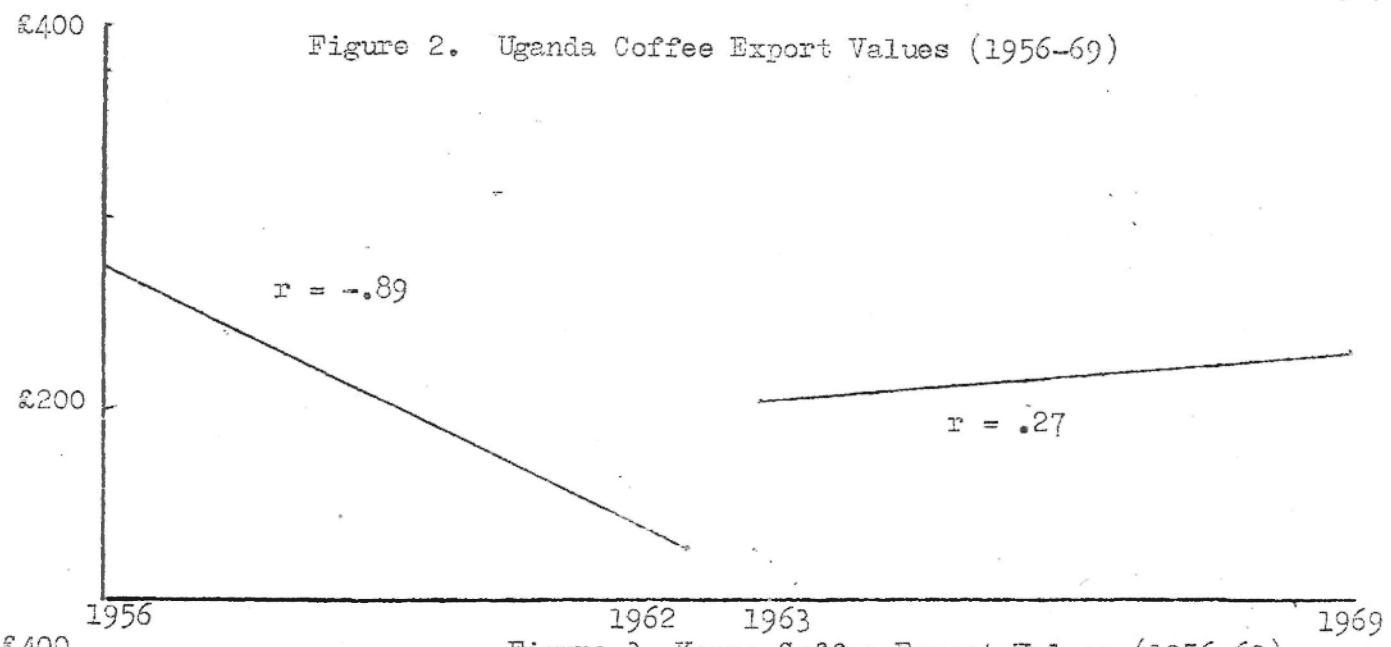

Figure 2. Uganda Coffee Export Values (1956-69)

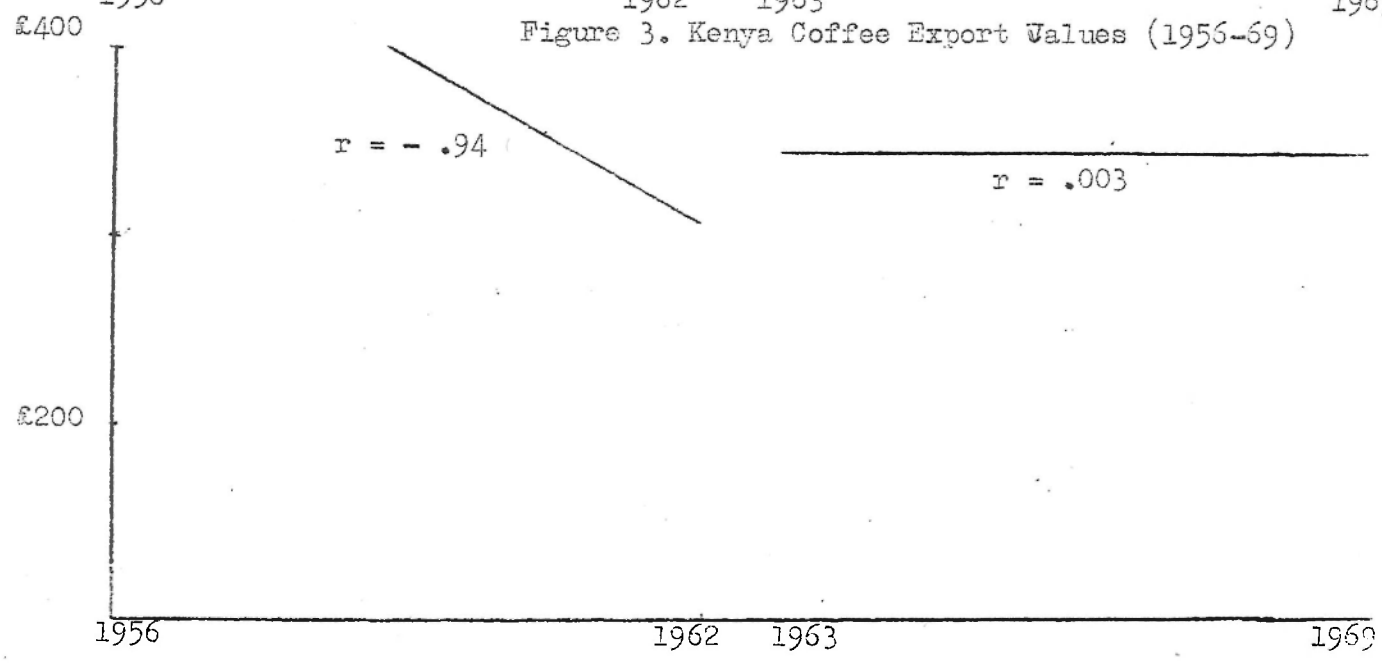

Figure 3. Kenya Coffee Export Values (1956-69)

r = correlation coefficient between time and unit export values.