TRENDS ON THE DISTRIBUTION OF INCOME IN KENYA, 1966-76

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ABSTRACT

This working paper, part of a large study on ownership of economic enterprise in Kenya., Summarises the evidence available on increase distribution in Kenya between 1966 and 1976. A number of different indicators such as the terms of trade between agriculture and industry and the functional distribution of income are considered. While it is difficult to assess whether inequality has increased or not (since it depends upon what measure is being used) the evidence suggests that there has been little dimunition in pre-independence patterns of inequality.

Introduction*

This study on trends in the distribution of income in Kenya oomprises one part of a larger study commissioned by the NCCK on ownership of economic enterprise in Kenya. In earlier parts of the larger study, emphasis is placed on ownership of industrial capital with the aim of identifying significant trends (e.g. the share of foreign ownership) between 1966 and 1976.

Since the audience of this study is essentially non-academic we have striven to present the analysis with the minimum use of academic jargon. This has necessitated an undesireably long introduction exploring various aspects of inequality. At the same time this has also meant that some of the presentation in this (and other) chapters may not entirely satisfy a more critical academic audience. Apologies are offered for this and one of the purposes of presenting this analysis as an IDS working paper is to benefit from such a critical academic audience.

Income Distribution in Kenya: 1966-1976.

In previous chapters we have been primarily concerned with the distribution of wealth in Kenya, as represented by ownership of various firms. Although wealth is generally the major source of income, it is not the same as income which is the amount available for spending in any period of time. Therefore we now turn in this chapter to a brief examination of the distribution of income in Kenya and the changes which have occured in the decade since 1966.

Are Kenyans better-off now than ten years ago?

If we add-up the value of all the things produced every year, including agricultural and manufactured products and taking account of both that which is sold (for example maize sales to the Maize and Produce Board) and that which is consumed directly without being sold to anyone (such as maize consumed by farmers and their families), and if we add to this the value of all services such as health and education, we can estimate Kenya's annual national income (or the Gross Domestic Product). Dividing this GDP by the total population gives us an estimate of <u>annueal per capita income</u>.

* Thanks are due to Arne Bigsten, Tony Killick and Shem Migot-Adholla for comments on an earlier draft.

Measured in this way there is little doubt that on average, Kenyans have got better-off in the ten years between 1966 and 1976. The average per capita income (i.e. GDP) of Kenyans rose by 280 per cent between 1964 and 1976 (K£32.3 to K£90.5), and although some of this increase was due to an increase in prices, the real increase in average per capita income taking account of these price increases, was nevertheless a healthy 26 per cent.[1]

However focussing on such average figures can be greatly misleading, as is shown in the following hypothetical example of two families, the Kamau's and the Makokha's. In 1966 the total income of seven members of the Kamau family may have been shs 1,400, giving an average of shs 200 per family member. In the same year the nine members of the Makokha family may have earned shs 1,440, giving them an average income per family member of shs 160. Now in the ten years to 1976 the two families may have had widely differing fortunes and the Kamau's total family income may have risen to shs 9,000 and the family grown to nine members, giving an average income per family member in 1976 of shs 1,000. The Makokha family may also have done better, earning shs 1,680 - but with an extra three family members the average income per family member decreased from shs 160 to shs 140.

As can be seen from table 1 which considers the 'facts' on hthe Kamau and Makokha familys' incomes, it is very difficult to determine whether they are better-off since it depends upon 'who' one is considering. If, for example, we consider the two families together, then there has been an improvement in their average income which rose from shs 177/50 to shs 508/57. The improvement is even greater if we are to consider the Kamau family alone since in the same period their average incomes went up from shs 200 to shs 1,000. But if we look at the Makokha family we find that despite an increase in the total average income (that is, both the Kamau and the Makokhas) their average income per family member has decreased from shs 160 to shs 140. Moreover, in the Kamau family the father might have almost complete control over the family income and may have spent almost all of the 1976 income on himself (say shs 8,000). In that case the average income of the rest of the family might have fallen to shs 125, below the level of the Makokhas, who despite their poverty may share out their incomes equally between all the family members.

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1. Source: Statistical Abstract 1976 (Government Printer, Nairobi, 1977) for the years 1964-75, 1976 GDP (in 1972 prices = £764.5m) estimate in private communication from T. Killick. 1976 population estimate from Kenya Statistical Digest Vol. XV, No. 4 December 1977.

Table 1. Hypothetical example of the Kamau and Makokha families and the increase in their average incomes between 1966 and 1976.

	Kamau family		Makokha family		Both families	
	1966	1976	1966	1976	1966	1976
Total income (shs)	1,400	9,000	1,440	1,680	2,840	10,680
Number of family members	7	9	9	12	16	21
Average per capita income (shs)	200	1,000	160	140	177/50	508/57

Therefore, to observe, as we have, that the average per capita income of all Kenyans rose by 280 per cent between 1964 and 1976 may tell us very little indeed about whether 'Kenyans' are better-off now than they were in 1964. It is therefore of the greatest importance to focus on the distribution of income, both now and (where possible) in earlier years, if we are to determine whether Kenyans are better-off than before.

In this study we shall not be concerned to give an answer to the question "Has the standard of living of Kenyans improved since 1964?". Although this question deserves consideration (and in fact we believe that for much of the population living standards have gone up), we are concerned with a different problem. Thus it is not the size of the cake which interests us so much as the shares which go out to various groups in the society. Of course if the cake grows very rapidly, a smaller share may still provide a higher income - by contrast if the cake hardly grows at all and the shares remain broadly constant, then living standards may go up more with increasing inequality than with constant shares. It is worth bearing this in mind in reading the following sections.

In looking at the distribution of income we are faced with two particularly difficult problems. The first is that we are largely dependent upon the measures of income distribution which have already been made by others who have looked at this problem in the past and these have many shortcomings as their authors note.[2] And the second difficulty arises in

2. See, especially, P. N. Kamau, Income Distribution in Kenya, M.A. thesis, Department of Economics, University of Nairobi, June 1977, and A. Bigsten, Regional Inequality in Kenya, Working Paper No. 330, Institute for Development Studies, University of Nairobi, November 1977.

deciding what to compare. We could theoretically list the earnings of each person in Kenya in 1966 and 1976 and see how these have changed, but this is clearly impractical. Therefore we have to compare the incomes of different groups of people in this period and our difficulty lies in deciding which groups to use. We could, for example, compare the incomes of left-handed people with those of their right-handed counterparts, but this is of little interest. To some extent the decision is already made for us since we shall largely be using information from other studies and sources (especially the Central Bureau of Statistics) which have already aggregated their information into different groups of Kenyans.

But before we turn to these studies we need to distinguish between incomes which are earned from 'private' sources - such as wages, salaries, profits, rents, dividends, value of farm output, etc - and the benefits received in the form of services provided by the government, such as education, health, and so on. Because these incomes are generally available from different sources we shall distinguish between these 'private' and 'public' incomes.

As we have seen there is no one measure of income distribution as it depends upon which groups one is comparing. We shall present a variety of different measures and leave the readers to decide whether in their opinion Kenyans have got more equal or less equal in the decade between 1966 and 1976. But before we do this it is necessary to qualify the data which follows in three ways. Firstly, there are severe problems of measurement which arise in almost all cases, but particularly in the measurement of the income of subsistence and semi-subsistence farmers. These farmers and their families comprise the bulk of Kenya's population and there are few accurate measures of their real output. Most of the studies on rural incomes are based on a survey of a selected sample of farmers and these results are then generalised to all rural families. However, there are frequently erros in these measures (for example in calculating the size of farms) and sometimes these partial results, when generalised, do not provide an accurate picture of the real world. Therefore it is difficult to know how accurate these estimates of rural incomes really are.

The second qualification to the data arises from our ignorance of the ways in which families redistribute income amongst their members. Much of the paid-labour is migrant and remits a portion of its income home to their families, but this proportion varies widely. Furthermore, although the distribution of income is generally measured in terms of nuclear families (that is, father, wife(s) and children), very often money is widely redistributed within the extended family with contributions made to a large number of different individuals' needs (for example, a clan member's education).[3] Therefore the figures which are presented later on income distribution to some extent overstate the concentration of income because they ignore the redistribution of income within the extended family.

However, this overstatement is counteracted by the fact that most studies on income distribution in Kenya understate the concentration of income because they ignore the widespread phenomenon of people and families receiving income from more than one source. Noone who has worked in the civil service or had much to do with it can fail to notice the number of these civil servants who run private businesses in addition to (or instead of) their regular jobs. This occurs at all levels, ranging from the ministers and permanent secretaries with their share portfolios, shambas and shops to the junior civil servants with their matatus and kiosks. Thus to merely consider the incomes arising from their formal jobs severely understates the incomes of these people. After all, there is no public salary in Kenya which allows the purchase and running of a Peugeot 504 GL (costing shs 101,300) or a Mercedes (the cheapest of which, the 200, costs shs 165,000 and the most expensive, the 350 SE, costs shs 381,680).[4]

Noting these three qualifications we can now look at some of the data which exists on income distribution in Kenya.

The distribution of incomes between agriculture and industry

There are few Kenyans who can be termed entirely as subsistence farmers. Since almost everyone requires money to pay for farming inputs (such as Jembes, seeds, fertilisers), manufactured products (such as soaps, shoes and processed foods) and services (such as health and education) most farmers sell a portion of their output, often buying it back when food is in short supply before the next harvest and when prices are inflated.

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3. One study undertaken in 1971 estimated that the higher the salary the lower the proportion remitted from urban to rural area. For the very lowest wage-earners (income of shs 50 per month) about one quarter was remitted and this fell to about one-eight at higher income levels (over shs 1500 p.m.) See Urban-Rural Income Transfers in Kenya: An Estimated Remittance Function, G.E. Johnston and W.E. Whitelaw, Discussion Paper No. 137, IDS, June 1972.

4. All prices as at October 1977, These prices compare with the maximum civil service salary in 1977 of shs 110,280. In 1977 a total of 176 Mercedes and 560 Pengeot passenger vehicles (i.e. excluding buses, trucks, pick-ups and four wheel drives) were sold out of a total of 7,616 such vehicles.

In fact most farm receipts are used to buy farm inputs or goods manufactured in the urban areas. It is very important, therefore, to be able to compare the prices which the farmers receive with those which they pay for their inputs and purchases, because if the prices which farmers receive do not increase as quickly as do the prices they pay for inputs and purchases of manufactured goods then money is in fact being transferred from the rural to urban areas. In table 2 below we can see how these relative prices (which are called the "terms of trade") have changed in the years since 1964. It can be seen that for almost all of this period, the prices which farmers received for their produce rose more slowly than those of manufactured goods and inputs purchased from the towns - only, briefly in 1972/73 and in the last year, 1976, did the agricultural sector recover or exceed its 1964 position. This means that for most of these years the agricultural sector, 'subsidised' the high incomes of the urban areas.

The gap between agricultural and industrial incomes is high. In 1971, for example, average industrial wages were over nine times those of regular employees on small scale farms and settlement schemes (£43.5 in agriculture versus £384 in industry).[5] Although the cost of living is higher in urban than rural areas (one study estimates it at about 60 per cent higher)[6] it is clear that real industrial wages are much higher than those in agriculture. Unfortunately we have no consistent information over the years to show us how these industrial and agricultural wages have changed in relation to each other.

Relative incomes of different types of farmers.

Most of Kenya's population receive their primary income from agriculture. For obvious climatic reasons only certain crops can be grown in particular parts of the country - thus coffee is grown best round the slopes of Mount Kenya and tea in Kericho and Limuru districts. The relative profits earned from producing different crops willtherefore have an important effect on the incomes received by farmers in different parts of the country. Thus

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5. Source: Statistical Abstract 1976 talbes 237, 238, 250, 251, 259 and 260.

6. Project Appraisal in Practice, M. F. Scott, J.D. MacArthur and D.M.G. Newberry, Heinemann, London, 1976, p. 174.

Table 2. Price index for agricultural and non-agricultural products, and domestic terms of trade between the two sectors 1964-1976.

Year	weighted index of prices received by the agricultural sector for crops livestock and dairy products	Weighted index of non-agricultural prices paid by the agricultural sector for inputs and consumer items.	Domestic terms of trade
	(1)	(2)	(3)
1964	100	100	100
1965	96.8	105.5	91.8
1966	99	108.7	91
1967	96.5	109.6	88
1968	95.4	110.1	86.7
1969	96	109.3	87.8
1970	103	110.7	93.1
1971	102.8	119.5	86
1972	117.6	126.1	93.2
1973	151.6	145.4	104.8
1974	151.9	179.2	84.8
1975	171.6	208.5	82.3
1976	254	224.5	113.1

Source: Terms of Trade Tables, J. Sharpley, mimeo, Nairobi, 1978.

Note that the terms of trade in the third column are obtained by placing column 1 over column 2. If the terms of trade are less than 100 then the prices received by agricultural are lower than those it pays; if the terms of trade are more than 100, then agricultural prices have risen more than the prices of inputs and manufactured goods.

When coffee prices go up (as they have done recently) the benefits are largely confined to farmers in Central and Eastern procinces.[7]

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7. One recent study calculated that for every ten per cent increase in coffee prices, Kenyan GDP rose by 1.92 per cent. See U. Koester, Kenya's Economic Policy in Relation to the World Coffee Market, Working Paper No. 333, IDS, April 1978.

Although it would be very interesting to know how profitable farming is in different parts of the country, we are not attempting to measure the profitability in producing different crops. This is because there is so much variation between different farmers (reflecting farm-management skills) and different regions and also because of the great complexity of the exercise. Rather we shall look at the extent to which the relative prices received for different crops have changed over the past decade. While this does not give a very accurate picture of changes in the distribution of farming profits in these years, it does provide, at a very broad level, some indication of the major trends.

In table 3 we show how the average prices paid to the farmers (or cooperative societies in the case of coffee and pyrethrum) for the major crops changed between 1967 and 1977. It can be seen that between 1967 and 1977 the prices of wheat, maize, rice paddy, sugar dane, seed cotton and sisal had all risen between 235 per cent and 315 per cent since 1967, while coffee prices had increased to a much greatere extent (over 700 per cent) and tea by much less (only 192 per cent). If we look at these figures in greater detail it is evident that until 1973, the relative price increases were fairly similar - only after 1973 did large variations in relative prices become apparent. These variations are shown graphically in figure 1 (which excludes meat and seed cotton whose price behaved comparably to those of three other commodities, maize, wheat and sugar cane). It is obvious from this figure that over these four years, two crops (coffee and sisal) seem to have done relatively well, and two others (tea and pyrethrum extract) to have performed relatively poorly.

Since, as we have seen, agriculture is the primary source of incomes in Kenya, these changes in relative prices will inevitably have affected the distribution of income between different regions. It is of interest, therefore, to see where coffee and sisal (the good performers) and tea and pyrethum (the bad performers) are grown in Kenya. This information is provided in table 4, from which we can see that the main beneficiary from increased coffee prices was Central Province which also had a proportionately large share of sisal production. Coast and Rift Valley provinces also did well out of sisal, although the latter province had a disproportionately large share of tea production, which was a poor-price performer. Nyanza province also seemed to have large shares of tea and pyrethrum, the crops with low price increases. But even then, perhaps Nyanza Province was better-off than Western Province and N. E. Districts which had almost none of these major cash crops. Nevertheless recent changes in prices must have helped to increase inequality, particularly between the two heavily populated

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Price Index for Selected Crops: Prices paid to farmers or Cooperative Societies
1973 - 1977

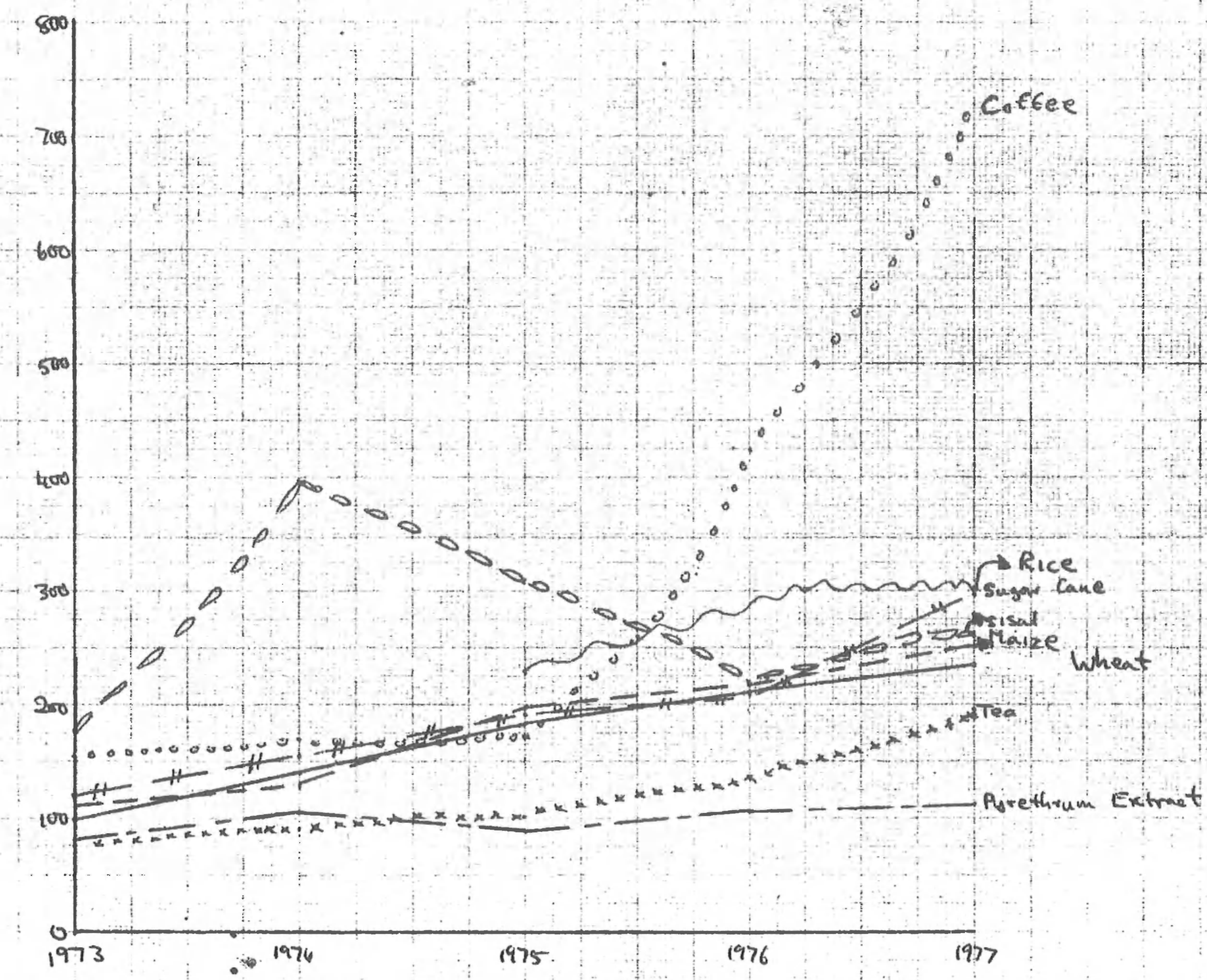

Table 3. Relative producer prices of various crops[a]: percentage of 1967 price

	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977
wheat	100	99.1	96	79.4	89.1	89.1	99.8	142	184	212	235
maize	100	87	78	78	94	110	110	131	198	217	252
rice paddy	100	101	121	111	106	112	110	129	230	301	301
pyrethrum extract	100	79	74	70	85	87	82	106	89	105	113
sugar cane	100	109	107	107	107	119	123	147	212	249	315
seed cotton	100	103	103	104	110	122	128	164	202	220	314
coffee	100	110	108	130	109	135	159	170	174	428	728
sisal	100	86	84	73	63	84	178	399	319	217	238
tea	100	75	79	86	83	77	76	92	103	135	191
beef FAQ	100	105	100	115	116	132	143	155	173	195	NA

a. These prices are those received by farmers, except in the case of coffee and pyrethrum, where these refer to prices received by cooperative societies. The deductions of these cooperative societies have increased in recent years in the case of coffee from 20-30% in 1969/70 to about 35% in 1976, which means that some of the increased coffee prices have not been passed on to small scale growers - thus large-scale coffee estates have gained more from recent price increases than the small scale growers.

Source: Producer prices from Statistical Abstract 1976, tables 84 and 87, and from Economic Survey 1978. Coffee and Pyrethrum Marketing Board cesses (which have been deducted from the tables in the Statistical Abstract and Economic Survey) from 'Deductions for Marketing Overheads', T.J. Aldington and J Sharpley, mimeo, Ministry of Agriculture Planning Division, 1977.

Table 4. Coffee, sisal, ~~beans~~ and pyrethrum extract: provincial shares of gross marketed production (%).

		Better performers[a]		Worse performers[a]	
	Share of total population (1969)	Coffee	Sisal	Tea	Pyrethrum Extract.
Nairobi	4.7	-	-	-	-
Central	15.3	74.6	27.1	15.5	25
Coast	8.6	.01	37.1	-	-
Eastern	17.4	15.4	5.8	4.4	.7
N E Districts	2.2	-	-		-
Nyanza	20.2	4.1	-	3.8	59.7
R. Valley	19.4	4.7	29.1	76.3	14.6
Western	12.1	1.1	-	-	-

Source. A Bigsten, Regional Inequality in Kenya', Working Paper No. 330, Institute for Development Studies, University of Nairobi, November 1977.

a. See page 8

Central and Nyanza provinces. The impact of changing coffee prices in regional inequality has been reinforced by Government policy which has regulated additional plantings. Thus one study concludes.." It is well known, for example, that coffee is only produced in certain areas and that the present structure of production has been very much influenced by a governmental ban on new planting in the past... Coffee producers on average are among the relatively well-off farmers. Hence the exorbitant coffee price increases obviously ran against the objective of a more equitably (sic) distribution of income within agriculture"[1].

Distribution of income between employers and employees.

Limited information makes it difficult to assess precisely the changes in the distribution of income between employers and employees. However it can be seen from table 5 and figure 2 that after an initial period of increasing real wages (that is, taking account of inflation) between 1965 and 1973, there was a sharp drop in these incomes between 1973 and 1976 such that in real terms the average wage in 1976 was lower than the average wage in 1966.

Table 5: Real wages and company profitability, 1966-76

Real wages	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976
Nairobi average wage (shs)	400.3	438.8	446.3	443.1	448.2	494.9	505	517	542.3	647	722.8
Middle income price index (1971-100)	58.6	60.7	61.2	61.2	62.2	66.8	69.2	67.3	90.1	105	113.8
Real wages (1971 shs)	683.1	723	729.3	724	720.6	740.9	729.8	768	601.9	616	635.2
Profitability											
Ratio of after tax profits to capital plus reserves (%)	1' 7	12.7	8.9	12.2	12.5	13.3	13.5	13.8	16.9	12.9	14.8
No of firms in sample	31	28	39	40	44	25	42	50	53	4.7	29

Source: Average wages and price index from statistical abstracts, 1970, 1971 and 1976. Company profitability from analysis of company Annual Reports as summarised by J.S. Donovan and Co. Ltd Nairobi and from annual the reports of Nairobi stock exchange 1966-1972.

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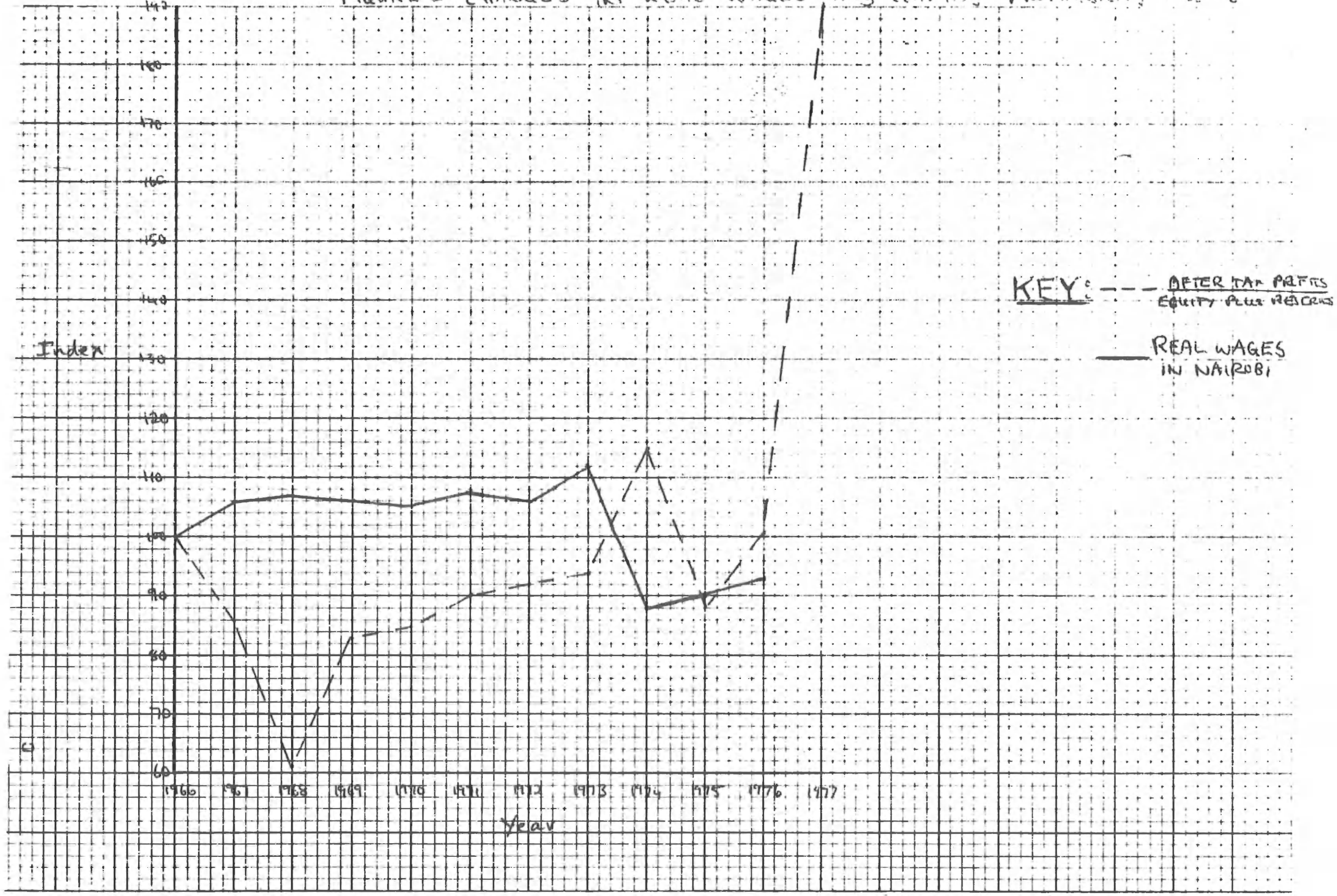
1. U. Koester op cit, p 22.

FIGURE 2 CHANGES IN REAL WAGES AND COMPANY PROFITABILITY 1966-76



This decline in average real wages seems to have affected low-income wage earners more than some high-income salary earners. This can be seen from table 6 below which compares increases in executive salaries between 1972 and 1977 and can be related to the upper income price index(which increased by 81 per cent between 1972 and mid 1977) and the Nairobi average wage shown in table 5 above. It can be seen that on average not only did some of these executive salaries increases faster than those of average wage earners or the increase in prices, but there seems to have been a tendency for the salaries of senior executives to increase faster than those of junior executives and for salaries in the very large firms (that is those employing more than 1,000) to increase faster than those in the smaller firms.

Table 6. Percentage increases in basic salaries of executives by size of firm, 1972-1977.

Number of employees / Job category[a.]	less than 100	100 - 300	300 - 1,000	more than 1,000
Full time director	50	84	40	107
Heads of major divisions	47	50	46	44
Senior management	12	28	15	102
Middle management	34	1	45	124

a. For a fuller description of these job classifications see the source documents
Source: Survey of Salaries and Fringe Benefits in Kenya. 1972-3, Inbucon, Nairobi, 1973.

1977 Survey of Salaries and Fringe Benefits. Nairobi Area Kenya, Ashby Inbucon Ltd, Nairobi

If we compare the profitability of major companies quoted on the Nairobi Stock Exchange over the same period (Table 5 and figure 2) we can see that after a sharp decline in profitability between 1966 and 1968, the profitability of publically-owned firms in Kenya seems to have increased to about the same rate in 1976 as that which prevailed in 1966, and in 1976 (although the sample of firms is small) the rate of profit increased dramatically.[1]

The racial distribution of income

For earlier years, that is up to 1972, the Central Bureau of Statistics provided information which enabled the calculation of average incomes for different racial groups in the 'modern sector'. This enabled us to observe

1. Although the sample size - seven - is small it should not be thought that this high profitability only reflects the profits of coffee and tea producers since only one coffee producer and one tea producer are included in the sample.

any changes which might have occurred in the racial distribution of income. This information, which is presented in table 6 below, suggests that in the first four years after independence, the ratio of average earnings of Europeans to Africans narrowed consistently, but that after this (that is, 1970 to 1972) it began to increase again. The evidence for Asian employees suggests that no consistent pattern emerged.

Table 6. Ratio of European and Asian to African average earnings in the 'modern sector'. 1964 to 1972.

	1964	1965	1966	1967	1968	1969	1970	1971	1972
Europeans / Africans	13.0	12.3	13.1	11.4	10.4	10.7	11.7	12.9	12
Asian / African	4.9	4.8	3.8	4.8	5.0	4.8	5.3	5.3	4.8

Source: P N. Kamau, Income Distribution in Kenya, MA (Econs) thesis, University of Nairobi, June 1977.

To some extent the racial distribution of income reflects the difference in incomes between citizens and non-citizens. In general it is likely that non-citizens will receive high salaries since it will be necessary to attract these individuals from the higher income opportunities prevailing in their countries of origin[1], and because of the dislocation costs involved in working in a foreign country. The differences between citizen and non-citizen incomes are shown in table 8 below which computes the ratio of basic salaries between citizens and non-citizens in four executive job categories and for secretaries and shows how these ratios changed between 1972 and 1977, the only years for thich such information is available.[2]

It can be seen from this table that not only has there been a slight tendency for the gap between non-citizens and citizens to increase in this period (particularly in the larger firms) but also that non-citizen salaries are seldom more than double those of citizens working in equivalent jobs in equivalently-sized firms. Comparing these ratios to those shown earlier

1. Of course this does not refer to these brought up in Kenya who are not Kenyan Citizens and who probably make up a large proportion of the "non - citizen" category.

2. There appears to be a slight tendency for fringe benefits of non-citizens to be greater than these of citizens. See the two source documents cited in table 6.

in table 7 (on the ratio between different racial groups) it is evident that little of the difference in incomes of different racial groups can be attributed to the citizenship of the employees and most arises from the different categories of jobs held by members of these racial groups.

Table 8: Ratio of non-citizen to citizen basic salaries in selected job categories by size of firm, 1972 and 1977

	1972/3				1977			
Number of Employees / Description	less than 100	100-300	300-1,000	More than 1,000	less 100	100-300	300-1,000	more than 1,000
Full time Director	1.13	1.14	1.00	-	1.14	1.14	.99	(2.29)
Heads of major divisions	(1.36)	1.55	1.12	(1.71)	1.32	1.50	1.37	(1.79)
Senior Management	1.39	1.35	1.07	1.32	1.30	1.29	1.73	1.30
Middle Management	(1.52)	1.44	1.65	-	1.6	1.99	(1.55)	1.63
Secretaries	.97	1.19	1.09	1.20	-	1.21	-	-

( ) Small samples

Source: See table 6.

Interpersonal distribution of incomes

A frequently used measure is that which calculates the interpersonal distribution of income. In this case the population is aggregated into different 'pereentile' groups (for example, the poorest 20%, the second poorest 20 per cent, the third poorest 20 per cent, the second richest 20 per cent and the richest 20 per cent) and their share of total per capita income is measured.

Of course, in a country such as Kenya, where available information is so scanty and unreliable, such measures have to be treated with great care. Nevertheless, the data which is presented by Morrisson[1] is most interesting and even if the figures are not precise, the broad trends which emerge suggests considerable interpersonal inequality in Kenya. In table 9 below we present Morrisson's data which calculates the percentage of total income going to different groups of Kenya's population. In reading this table, it is important to keep our earlier reservations in mind - that the data overstates inequality because it ignores redistribution within the extended family, and at the same time understates inequality because it ignores the fact that many people in Kenya have more than one source of income.

Table 9. Interpersonal distribution of income, 1969.

Share of population			share of total income (%)
Bottom	10	per cent	1.8
"	20	"	3.8
"	30	"	6.4
"	40	"	10
"	50	"	14
"	60	"	18.5
"	70	"	23.7
"	80	"	32
"	90	"	43.7
"	100	"	

Source: C Morrisson, 'Income Distribution in Kenya', Washington D.C., World Bank, 1973, cited in P.N. Kamau, op. cit.

Thus, if Morrisson's figures are to be believed (and they are supported by other studies - see P.N. Kamau, op cit, p48), they suggest that while the poorest 30 per cent of Kenya's population earned only 6.4 per cent of total, the richest 2 per cent earn 29 per cent of the total and the richest one per cent earned 18.5 per cent of the total [1].

This points to a picture of great inequality in Kenya - indeed when compared to other countries, we find that the interpersonal distribution of income in Kenya is amongst the most unequal in the world. One source (Jain, quoted in Kamau, op cit) suggests that out of 25 developing countries examined, Kenya is the fifth most unequal with only Rhodesia on the African continent being more unequal. Another source (Chenery, quoted in Kamau, op cit) places Kenya seventh most unequal out of 26 countries, with once again only Rhodesia being more unequal in Africa.

The regional distribution on income

Bigsten[2] has compiled a comprehensive set of information on the relative size of GDP in various provinces between 1967 and 1976. From this (see table 10 and figure 3 below) it can be seen that Nairobi and (to a lesser extent)

1. T. Killick, Strengthening Kenya's Development Strategy: Opportunities and Constraints, Discussion Paper 239, IDS, October 1976.

2. A. Bigsten, op cit.

Mombasa are clearly very much better - off than any other region. Only Central and Rift Valley provinces amongst the other regions have per capita incomes greater than one tenth of that of Nairobi, while average income in Western, Nyanza, Eastern and N.E. District provinces are only about one twentieth of those in Nairobi. The impact of high coffee prices in 1976 (see table 3) was to increase Central Provinces' average GDP in relation to that of Nairobi, from 13.4 per cent in 1975 to 16.3 per cent in 1976, and yet the full increase in coffee prices only really worked its way through to the farmers in 1977. This suggests that average incomes in Central Province probably reached about 20 per cent of those of Nairobi in 1977.

Relationship of provincial GDP per capita to that of Nairobi, 1967-1976 (%) Table 10.

	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976
Nairobi	100	100	100	100	100	100	100	100	100	100
Central	12.3	11.8	12.6	13.1	12.4	12.4	13.3	12.8	13.6	17.7
Coast	20.6	20.9	22.	22.4	22.4	19.8	21.9	22.3	22.8	22.8
Eastern	7.2	7.1	7.2	7.5	7.1	8.1	7.8	7.4	8.3	9.6
N.E. Districts	4.6	4.2	4.5	4.9	4.8	4.6	3.4	2.7	3.2	3.2
Nyanza	8.2	8.1	8	7.9	7.4	7.5	7.4	7.4	8	8.1
R. Valley	12	12.2	12.2	12.3	12.9	12.1	12.3	12	12.9	13.6
Western	5.1	4.9	4.9	4.9	4.7	4.9	5	4.9	5.9	6.1

Source A Bigsten, op cit, pp 42-55.

A second indicator of regional inequality is that which compares the average household income of "small scale farmers" (that is, 1 less than 20 hectares) in the various provinces, except Nairobi and N.E.D. in 1974/5, as calculated in the Integrated Rural Survey of the Central Bureau of Statistics.[1] It suggests that small farmers were richer than average in Central Nyanza and Rift Valley Provinces and markedly poorer than average in Coast and Western provinces, as is shown in table 11 below. Particularly interesting in this study is the fact that this survey included remittances from relatives - most other studies, as we have noted before, exclude this phenomenon and therefore overestimate the degree of inequality. It can be seen that per capita increases are low in Coast and Western Provinces despite a high level of remittances received by farmers in these provinces. This survey also takes account of various sources of income and therefore possibly avoids the other source of inaccuracy in other studies, particularly of urban incomes.

Table 11. Average yearly income of small scale incomes per holding, in different provinces, 1974/5

	Central	Coast	Eastern	Nyanza	R. Valley	Western	Average
Yearly household income (shs)	4,241	3,325	3,486	3,911	4,577	2,494	3,652
Average household size	6,95	8.04	6.74	6.58	7.51	7.44	6.77
Yearly per capita income (shs)	610.2	413.6	517.2	594.4	609.5	335.2	539.4
ratio of per capita income to average	1.131	.767	.959	110.2	1.13	.621	1
Remittances as % of household income	8.8	25.9	8.6	4.6	3.6	16.3	8.9

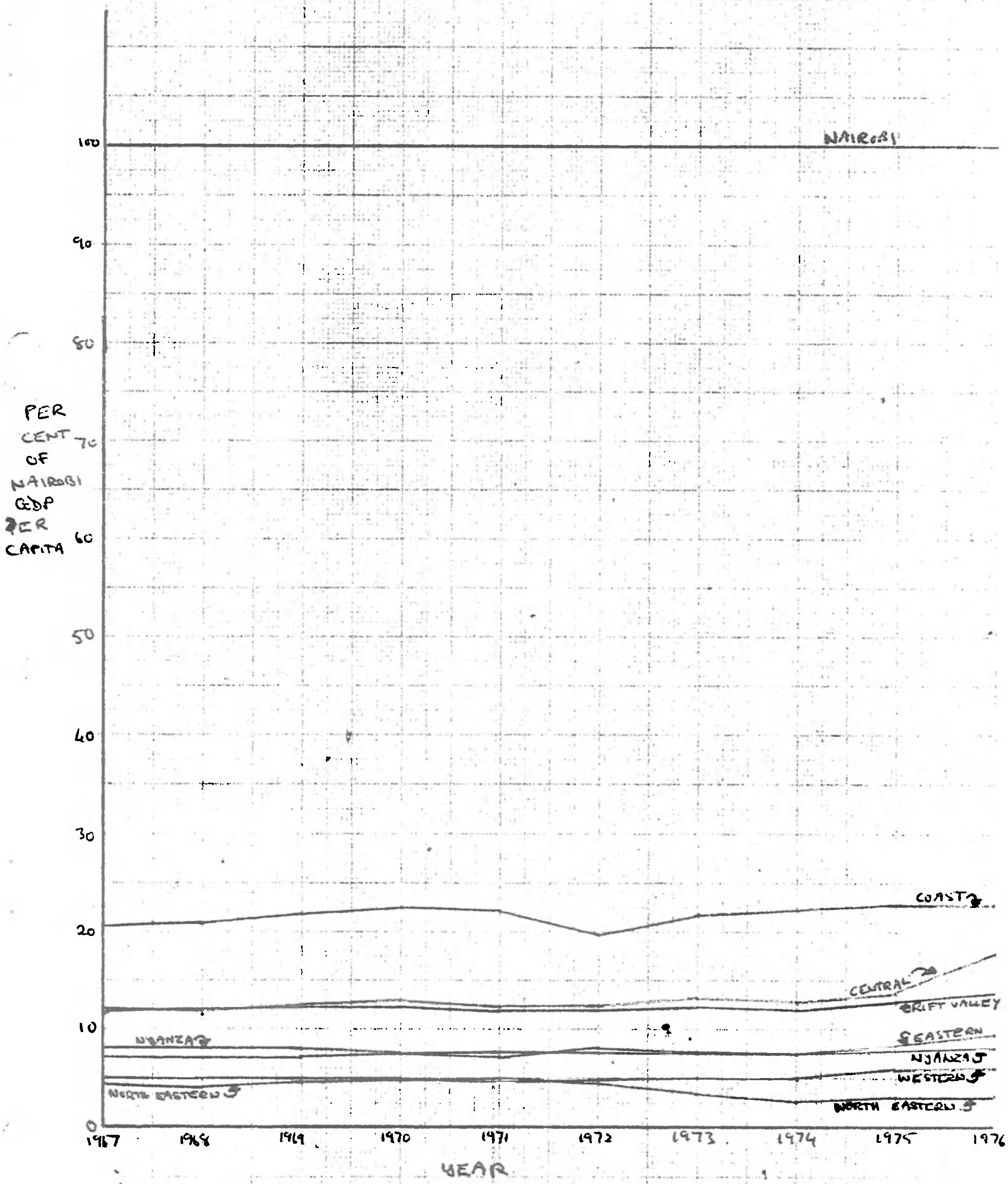
Source: Integrated Rural Survey 1974-5, Central Bureau of Statistics, Nairobi, 1977. tables 8.4 and 6.1.

It can be seen that per capita incomes of small farmers (i.e. below 20 acres) are low in Coast and Western provinces despite a high level of remittances received by farmers in these regions. But perhaps most significantly, in comparing the data in this table to that on total provincial incomes (shown in table 10 above) it appears that the level of inequality between small scale farmers in the rural areas seems to be lower than that between urban incomes in the different provinces.[1] Rural incomes depend very largely upon returns from agriculture and therefore changes in agricultural incomes in different regions will inevitably effect the regional distribution of income. Therefore it is necessary to refer back to the earlier discussion on relative prices for different crops. In that we noted that in very recent years, price changes, particularly for coffee, seem to have acted very much in the favour of Central province, and adversely for Rift Valley and Nyanza provinces.This would imply that the

1. There are reasons to believe that this data in the IRS may not be very accurate. Certainly it shows different trends to all the other data we have available and for these reasons we should perhaps treat the information in table 11 with some scepticism.

FIGURE 3

GROSS DOMESTIC PRODUCT PER CAPITA BY REGIONS IN RELATION TO NAIROBI GDP PER CAPITA: 1967-1976



SOURCE: BIGSTEN, OP CIT.

difference in rural incomes between Central and other provinces would have increased markedly in the three years since the Integrated Rural Survey was undertaken.

Having compared the regional distribution of aggregate (that is, GDP) and rural incomes, it is of some interest to compare the regional distribution of urban incomes. This information is presented in table 10 below, and although the information must be treated with care (since it 'wobbles' suspiciously - for example compare Eastern Province in 1967-68 and 1973-4), it does provide some estimates of relative wage scales in the 'modern sector'. These confirm, as we would expect, that average earnings in Nairobi are much higher than in any other province. Aside from Mombasa (the dominant urban employer in Coast province) urban incomes in other parts of the country are fairly similar with the suprising exception of Central province whose average urban earnings appear to be relatively low[1]. It must be re-emphasized here, however, that there is an underlying assumption in this data that each person earns only one income - not only is this almost certainly an incorrect assumption, but in all probability the opportunities for earning significant subsidiary incomes are most likely to occur in the richest and largest towns, particularly in Nairobi and Mombasa. To this extent, therefore, the data in table 10 underestimates the regional inequality of urban incomes.

Of course these observations which are based on the differences between provinces say nothing about the distribution on income within provinces. Indeed, although Eastern Province may qualify as a province with a high average per capita income, there are large parts of the province where income levels are very low[2]. One indication of this inequality within

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1. The low level of Central Province urban incomes is probably partly explained by the fact that most commercial and administrative activities are based in Nairobi, thereby increasing the average of Nairobi, rather than the average income of Central province.

2. See D. Hunt, Methodological Issues and Selected Findings of an Analysis of the Distribution of Wealth and Income in Mbere Division, Eastern Kenya, Working Paper No. 212, IDS, March 1975, whose listing of the household possessions of these people suggests pitifully low incomes.

Table 12 Ratio of Average urban incomes in different provinces to total average, 1966-75.

	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975
Nairobi	1.21	1.211	.23	1.22	1.23	1.23	1.24	1.19	1.13	1.17
Central	.59	.57	.61	.62	.61	.60	.62	.63	.64	.63
Coast	.88	.88	.87	.88	.87	.87	.81	.89	.92	.89
Eastern	.65	.62	.44	.46	.46	.43	.47	.54	.84	.72
Nyanza	.69	.67	.69	.70	.70	.66	.70	.67	.81	.68
R. Valley	.66	.64	.66	.65	.65	.62	.60	.60	.73	.70
Western	.78	.75	.70	.73	.73	.56	.78	.73	.65	.66

Source: Calculated from Statistical Abstract 1976, tables 240 and 253.

Regions can be seen with regard to nutritional levels of children (see table 13) where various Central Bureau of Statistics surveys suggest that the three richest provinces have the greatest proportion of malnourished children (compare 13 with table 11).

Table 13: Some nutritional indicators in different provinces, 1977.

	Percentage of children under four years with		
	Weight/age ratio less than standard for healthy, well fed children	Height/age ratio less than standard for healthy,well-fed children	weight/height ratio less than standard for healthy, well-fed children
Kenya	33	29	29
Central	39	31	33
Coast	24	19	30
Eastern	41	38	32
Nyanza	24	25	21
R. Valley	34	29	27
Western	27	21	29

Source: Adapted from The Rural Kenyan Nutrition Survey, February-March 1977 Social Perspectives Vol.12 No 4, Sept 1977, Central Bureau of Statistics, Nairobi.

Inequality within the Civil Service.

The Government is the largest single employer in Kenya and it is consequently of some interest to determine whether relative inequality within the Civil Service has changed over the years. In reaching any conclusion on this subject we must take into account the fact that the figures presented in table 14 below refer only to Civil Service salaries and take no account of other sources of income such as private businesses and the illegal use of government property (eg.cars).

Nevertheless the data presented in table 14 shows a clear reduction in relative inequality over the years between the highest and lowest salaries within the Civil Service. Despite this the absolute gap between the highest and lowest salaries increased over the years from £3,522 to £5,295, although if account is taken of price increases in this period, the real value of the absolute differences appears to have declined after an initial increase between 1967 and 1972.

Table 14. Differences between highest to lowest Civil Service salaries for selected years.

	1967	1972	1975	1977
Ratio	46.1	38.2	28	25.1
Absolute difference (£current)	£3522	£4464	£4941	£5295
Middle income price index (1971=100)	60.7	69.2	105	133.3
Absolute difference (£1971)	£5802	£6451	£4706	£3972

Source: Personal communication from S.Migot-Adholla, IDS, Nairobi. Price indeces from Kenya Statistical Digest, various editions.

"Public Incomes"

In this section we refer to some services provided by the central and local governments and to Harambee contributions as a measure of the distribution of non-cash in Kenya. Most of the information which is readily available refers to the regional distribution of these services and since we are largely working with information generated earlier by others, we shall confine ourselves to this type of regional analysis.

Education.

Intable 15 below we present some data on the shares of the various provinces in the total number of pupils in 1975. In comparison with their shares of total population, it is apparent that Nairobi and Mombasa have relatively few primary school pupils and Western province has a relatively high proportion. And to the extent to which there were changes between 1969 and 1976, these had the effect of improving the relatively poor position of Nyanza and R. Valley provinces.

We find a very different situation when we look at secondary schooling, though. Here the richer Nairobi and Central Province have a relatively high proportion of total enrolment,[1] and Nyanza and Rift Valley have low shares. Once again Western Province fares quite well, but with the exception of the relatively deprived N.E. Districts, there appears to have been relatively little tendency towards redressing these inequalities between 1969 and 1976.

Table 15. Provincial shares of primary and secondary education and changes between 1969 and 1976.

	Share of population (1969)	Primary schooling share of pupils	Primary schooling %increase 1969-76	Secondary schooling share of pupils	Secondary schooling %increase 1969-76
Nairobi	4.7	2.5	+ 37	10	- 1
Central	15.3	16.5	+ 56	24.6	+ 106
Coast	8.6	4.6	+ 104	7.2	+ 53
Eastern	17.4	16.2	+ 102	17.1	+ 179
N.E. Districts	2.2	.2	+ 112	0.2	+ 250
Nyanza	20.2	17.8	+ 192	14	+ 103
R. Valley	19.4	14.7	+ 170	12.9	+ 112
Western	12.1	27.5	+ 154	13.9	+ 168

Source: Adapted from A Bigsten, op cit, table 10.

But such aggregate numbers can be misleading if the quality of this schooling is ignored. One such indication of the relative quality of schooling available in these different provinces can be obtained by looking at the percentage of teachers who are fully qualified in each region. This is shown in table 16 and is most instructive since it shows that Nairobi and Central Province are overwhelmingly favoured in this respect and, moreover, while the proportion of qualified teachers rose in Nairobi and Central Province between 1974 and 1976, it fell in every other region.

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1. In Nairobi and Mombasa this is partly due to the large number of boarding schools with a national intake.

Table 16. The quality of primary school teachers, 1974 and 1976.

	Percentage of qualified teachers.	
	1974	1976.
Nairobi	97	98
Central	81	82
Coast	57	53
Eastern	61	59
N.E. Districts	71	61
Nyanza	64	55
R. Valley	64	59
Western	59	57

Source: A Bigsten, op cit, table 11

Health

Health services are very unequally distributed throughout Kenya as is indicated by the data presented in table 17 with most of the services being concentrated in Nairobi and in Mombasa.[1] Unfortunately little information is available with respect to changes over time. The best indicator available of such changes is that provided by development expenditures which reflects the amount of money being put into new facilities. While the information in table 17 only refers to development expenditure on curative services (which tend to be centered in the urban areas), the very high proportion going to Nairobi (and in particular to Kenyatta National Hospital) reflects the pervasive urban bias in health care in Kenya.

Table 17. Some information on the distribution of health services.

	Health centres per mill	Hospitals per million	Beds and cots per mill	Doctors per million pop.	Attendances per million	Development expenditures on curative health per capita (£) 1974-8
Nairobi	21.4	38.6	4,500	1,451	NA	6.59
Central	14.6	18	1,600	33	0.42	0.5
Coast	6	18.8	1,400	128	0.37	0.97
Eastern	8.9	13.8	1,200	14	0.44	0.64
N.E.Districts	0	11.4	900	0	0.32	0.04
Nyanza	10.2	10.2	600	28	0.05	0.58
R.Valley	22.5	18.6	1,200	43	0.30	0.34
Western	18.5	11.3	1,000	5	0.14	0.18
Average	14.1	16.	1,300	101	NA	NA

Source: A Bigsten, op cit, tables 14 and 15.

1. According to one source, only nine per cent of total health expenditure goes to the rural areas, while 15 per cent goes to Kenyatta National Hospital alone. See surgeon Blasts Heart Unit Idea, Daily Nation 20th May, 1978.

Roads

Transport facilities are of great importance in Kenya, not only because it provides access for the sale and purchase of commodities, but also because it enables greater mobility of the population and hence improves the quality of life, particularly in rural areas. Little information is available on the extent and quality of roads and transport facilities in Kenya. The major and most intensively-used road network is the arterial link which starts in Mombasa and ends in Kisumu.

Once again, the only intimation we have of the extent and quality of roads in the various regions is that provided by the 1974-8 development expenditures by the central government on roads. As we can see from table 18 below, the greatest expenditure per capita occurs in the richest province (Central) and the smallest expenditure per capita is in Nyanza and N.E. Districts, two of the poorest regions. This would suggest that regional inequality is being reinforced by the unequal distribution of development expenditures on roads.

Table 19. Development expenditure by central government on roads by province, 1974 - 1978.

	per capita expenditure (£)
Nairobi	4.42
Central	9.67
Coast	6.25
Eastern	4.85
N.E. Districts	3.84
Nyanza	1.90
R. Valley	5.50
Western	4.74
Kenya	5.17

Source: A Bigsten, op cit, table 17

Provincial Expenditure

In addition to the central government, some services are provided by provincial authorities. The evidence available on these expenditures is confined to an estimate of the recurrent expenditures per capita. in 1973-4. Although this is an inadequate measure because it refers only to running expenses and because it refers only to one year, the data in table 19 below suggests that Nairobi (particularly), Mombasa and Central Province - the three richest regions in the country - have relatively much higher provincial recurrent expenditure per capita. By contrast, the three poorest regions - Western, N.E. Districts and Nyanza provinces have the lowest expenditures per capita. Once again inequality seems to be rainforced by the provision of provincial services.

Table 19. Recurrent expenditure by province, per capita (£), 1973-4

Nairobi	70.76
Central	9.69
Coast	13.07
Eastern	6.42
N.E. Districts	3.54
Nyanza	3.28
R. Valley	8.84
Western	4.09

Source: A Bigsten, op cit, table 21.

Harambee Projects.

It might be thought that in the face of such inequality in income and services, government contributions to Harambee projects might act to redress these imbalances. However, it is only in the case of N.E. Districts that this conclusion could be reached (see table 20) and once again the poorer Western and Nyanza provinces obtained relatively low shares of central government contributions to Harambee projects in 1972 (the only year for which information is available). Moreover, contributions by the local population reflects the wealth of their regions and the net result is that whereas Central Province only had 15.3 per cent of the total population it accounted for almost one third of all Harambee funds; while Western Province, with 12.1 of the population received only 7.4 per cent of all Harambee contributions.

Table 20. Some information on Harambee Projects, 1972.

	Share of total funds(%)	Share of total contributions by local people	Share of central government contribution.	Share of population (1969).
Central	32	34.1	22.8	15.3
Coast	7.7	6.7	15.8	8.6
Eastern	15.5	15.5	19.4	17.4
N.E. Districts	2.1	1.5	9.6	2.2.
Nyanza	14.7	15.	12.2	20.2
R. Valley	20.4	20.3	18.4	19.4
Western	7.4	6.9	1.8	12.1

Source: calculated from A Bigsten, op cit, table 18.

Conclusion

Despite the difficulties in obtaining appropriate data and the problems of underestimation and overestimation which are involved (and which were discussed earlier), we are able to draw a number of conclusions about the distribution of income in Kenya in the period between 1966 and 1976.

(i) When we look at the interpersonal distribution of income we find great inequality with only 10 per cent of the population earning half, and one per cent earning almost one fifth of the total income. Given the different measures of inequality which are available it is difficult to state unequivocally whether income was more or less equally distributed in 1976 compared with 1966. In some respects (for example between producers of different crops distribution has undoubtedly got worse, particularly in the recent period as a result of the very substantial increase in coffee prices However, it is our impression from overviewing the available data (although it is difficult to prove) that a significant gap-has opened between a very small number of Kenyan citizens and resident expatriates and the main of the population.

(ii) Compared to other countries, the distribution of interpersonal income in Kenya is very unequal. Indeed, according to some studies (see pp15-16 only Rhodesia in Africa has a worse distribution.

(iii) Regional inequality is very marked and has got substantially worse since 1966. This is not only because of the recent boom in coffee prices, which as we have seen raised incomes largely in Central Province, but also because in almost all spheres of public services the giant's share of expenditure has gone to the already wealthy Nairobi, Mombasa and Central Province. The three poorest provinces N.E. Districts, Western and Nyanza (in that order) - have invariably also obtained proportionately low shares of public expenditure, and moreover there is some evidence that inequality within regions is greater in the richer than in the poor regions.

(iv) While real wages appear to have stagnated or even declined since 1966, the profitability of major companies appears to have been maintained over the years, implying therefore, that the class distribution of income in industry.

(v) In most years change in the relative prices of agricultural and industrial products has led to a transfer of income out of agriculture to the industrial sector.