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REPUBLIC OF KENYA

KENYA EDUCATION COMMISSION REPORT

PART II

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KENYA EDUCATION REPORT

PART II

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Terms of Reference

To survey the existing educational resources of Kenya and to advise the Government of Kenya in the formulation and implementation of national policies for education which—

- (a) appropriately express the aspirations and cultural values of an independent African country;
 - (b) take account of the need for trained manpower for economic development and for other activities in the life of the nation;
 - (c) take advantage of the initiative and service of regional and local authorities and voluntary bodies;
 - (d) contribute to the unity of Kenya;
 - (e) respect the educational needs and capacities of children;
 - (f) have due regard for the resources, both in money and in personnel, that are likely to become available for educational services; and
 - (g) provide for the principal educational requirements of adults;
- and to report to the Minister for Education.

(ii)

**Letter from the Chairman of the Kenya Education Commission to the
Minister for Education dated 22nd July 1965**

My dear Minister,

I have the honour to present to you Part II of the Commission's Report, which deals with certain special subjects calling for more detailed inquiry and with the quantitative aspects of education in the light of the manpower survey. I regret that the Commission has not been able, in the short time available, to go into costing in greater detail and also into the future of university education. The latter is a large and important subject which, to do it justice, would require several months of careful study. We have therefore left it as a subject for a more intensive study for a continuing body that we hope would arise from our recommendations.

Yours sincerely,

(Signed) S. H. OMINDE,
Chairman.

**Letter from the Minister for Education to the Chairman of the Kenya
Education Commission dated 23rd July 1965**

Dear Professor Ominde,

I am deeply indebted to the Commission for their further painstaking inquiry and to you personally for your able direction of the Commission's work. I am certain that the Government will find the results of your efforts of the greatest importance for the future of Kenya Education.

Yours sincerely,

(Signed) MBIYU KOINANGE,
Minister for Education.

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SUMMARY OF RECOMMENDATIONS—(Contd.)

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58. We have considered the country's ability to meet the recurrent costs of development on the scale proposed and we believe that from this point of view our proposals are realistic	705-706

PREFACE

Part II of the Kenya Education Commission Report is a sequel to Part I, in which certain matters already touched upon are set out in greater detail and in which conclusions are drawn about enrolments and costs. The study is somewhat less exhaustive than might have been possible if we had had more time for research, but in the circumstances of rapid change surrounding our country at its present stage of development, time was not on our side. We hope, nevertheless, to have provided a framework for development, which will be serviceable to the Government and people of Kenya in arriving at the momentous decisions that confront them in this most vital and most costly of all our social services.

One subject on which we have not been able to report is the future of university education in Kenya in relation to our manpower needs at the highest levels, including the need of research. As we noted in the preface to Part I, an independent inquiry of this kind is a complex matter and could not have been undertaken without having much more time at our disposal than could be permitted to us in view of the Government's urgent need of our findings with respect to other parts of the system. In paragraph 485, we suggested that the Minister might wish to establish a small standing advisory committee to undertake research from time to time into major questions of policy. An inquiry into university education would be a profitable exercise for such a body. Another urgent and difficult task would be to take up the problem of education in the pastoral areas where we have left it off. As we wrote previously, the members of such a committee would need to be "persons of distinction and acknowledged reputation" and, we would add, of high academic merit with experience of research.

In compiling the second part of our report, we have taken no further evidence, preferring to work on the basis of the innumerable documents and testimonies of individuals and organizations recorded in Appendices 6 and 7. We have, however, sought and received further information from Government Departments and a few individuals and wish to record here our indebtedness for this help. For the convenience of readers, we have continued the numbering of paragraphs, Tables and Appendices where we left off in Part I and paragraph references appearing in Part II are in many cases to paragraphs which are to be found in Part I.

During our work on Part II, several members of the Commission were abroad and unable to participate directly in our discussions. We have also felt a need of reinforcement on the economic and statistical side. We have been most fortunate, from this point of view, in obtaining the services of Mr. Krishna, an economist of University College, Nairobi, and of Mr. Mwiraria, a statistician of the East African Common Services Organization. In addition, we have had the benefit of the great experience and wisdom of Mr. Kioni, the General Secretary of the Kenya National Union of Teachers. All of these experts in their respective fields were co-opted as members of the Commission and made a valuable contribution to our proceedings.

Part I was published on *Jamhuri Day*, 12th December, 1964. As a result of the Constitution of Kenya (Amendment) Acts passed by Parliament at about that time, the Regions disappeared and their place was taken by Provinces, while certain other changes consonant with the needs and character of the new Republic of Kenya were made. Part II adopts the new nomenclature and it is now necessary to read Part I in the light of these changes.

22nd July 1965.

CHAPTER IX

Universal Primary Education

Introduction

532. We have already given some attention to the goal of free primary education in Part I of this Report and we have expressed the opinion that it constitutes a valid objective of educational policy. As we wrote in paragraph 201, "so important a social service ought to be freely available to all children and to be supported out of the revenue". We base this view not merely on a purely cultural or moral concept of primary education*, though these ingredients are important. As we shall presently make clear, the general spread of primary education has, in our opinion, also an economic importance, of a lower order, it may be, than secondary and other post-primary schools, but nevertheless of real significance.

533. "Free primary education" has, of course, become a familiar phrase in the language of Kenya politics since Independence, but like many such phrases its outward simplicity conceals great inner complexity. To begin with, as we showed in paragraph 205, the phrase itself is somewhat misleading, because it conveys the impression that in some mysterious way education can be provided as a free gift. In fact, whether the cost is partly met out of fees from parents, or whether it is wholly defrayed out of taxation, it has to be covered somehow. The question at issue is whether primary education should rest partly on what amounts to a "tax" on parents, or whether the whole burden of cost should be met out of a tax on the community, of which the parents in any case form a substantial part. We shall revert to the problem of transferring the whole burden to the community later in this chapter.

534. Further, being dissociated from any indication of cost, the phrase is commonly used as though it enshrines a policy capable of immediate fulfilment. That this is an illusion is clear from several points of view. Barely 60 per cent of the eligible child population is now present in the primary school. To admit those remaining outside would require not only a great increase of school buildings and equipment, but also an eighty per cent enlargement of the existing teacher force of over 28,000 teachers.† In support of these striking changes, considerable additional financial resources would be needed that are not now available. As the following paragraphs will clearly show, we have been compelled by the plain facts of our situation to accept as inevitable that the approach towards universal primary education must be gradual and that free and compulsory primary education are a subsequent stage in development.

* c.f. Tanganyika Five-Year Plan for Economic and Social Development, Volume I, p. 13.

† 27,604 teachers in maintained and assisted primary schools on 31st March 1964.

535. The problem that we see before us is, therefore, not whether “free” primary education is, or is not, a good thing, but how fast it can be implemented, having regard for the resources of the country in the next 15 years and the competing claims of other government services. Of the various questions that we have to answer, probably the most difficult is the question of priorities and we grasp this nettle forthwith in the next few paragraphs.

The Relative Importance of Primary Education

536. The question of priorities is one of the most difficult to resolve in a developing country. The needs of such a country are numerous and imperious, but cannot all be satisfied at once. To place them in an order of urgency is, therefore, a necessary, though often agonizing, part of Government planning. Less than two years free, Kenya has inherited a social and economic situation that clamours for reform and development on many fronts. Where should the Government first go in to the attack? At what points should pressure first be applied in order to bring about the speediest results? This is, of course, a comprehensive problem, calling for a wide-ranging view of the whole sweep of national activity. As a specialised educational body, we do not, of course, share this elevated situation; nevertheless, it is plainly our duty to consider the problem of priorities, as they affect the educational services.

537. We believe it to be axiomatic that for some years to come those activities that best contribute to economic development must claim the highest priority. This choice arises from the need both to raise standards of living and at the same time to enlarge considerably the tax base, which sustains all the activities of government, including our educational services. As we shall presently show, this tax base is for the time being too small to allow of any rapid approach to universal, or “free”, primary education. We are convinced that the best way to achieve this goal within the shortest possible period of time is to recognize for the time being the prior claims of economic development.

538. It is, therefore necessary to assess the contribution of primary education to economic development. This is no easy matter and is the subject of diverse opinions. Although the view is not accepted by the Commission, it is commonly argued that secondary, technical and higher education alone contribute in any direct fashion to the development of the economy and that primary education, in economic terms, fulfils only the function of a reservoir from which pupils capable of further schooling can be drawn. On this theory, a 60 per cent coverage would appear ample for immediate economic purposes and any further provision beyond that level a misuse of money that ought to be devoted to other more urgent purposes.*

539. In our opinion, this constitutes too limited a view of the economic significance of the primary school. The establishments of formal secondary education are not the only avenues of training for the activities of the modern

* c.f. op. cit. Volume II, p. 112.

world, whose influence, as we explained in the beginning of Chapter III, is steadily transforming the traditional social and economic life of Kenya. Access to some of these activities is also gained by informal, on-the-job training, or by the various means of adult education, to which, in this Report, we have attached a much greater importance than has hitherto been customary in Kenya. Looking out over the next thirty or forty years we see a radical transformation of our national life, for which large numbers of our citizens will remain permanently unfitted, unless provided in their maturity with opportunities for training. Save in rare, exceptional instances, the minimum foundation for such training consists of the fundamental education in respect of literacy, numeracy, manual dexterity and general knowledge of the world furnished by the primary school. Thus, to use an economic metaphor, a primary education is the minimum basic educational requirement for take-off into the modern sector of our national life. Those that lack such advantages are liable to remain for the rest of their days largely outside the range of modern ways of living, unable to benefit from training or to share greatly in the rewards of a developed economy and becoming in the end an impoverished residue of a bygone age.

540. This is, of course, the economic argument for universal primary education. It is because we see all those that enjoy such benefits as potential participants in the modern economy, that we see ultimate economic advantage in the highest level of provision that the country can afford. For this reason, we cannot accept a standstill in primary school development at the present level of provision. On economic grounds alone, a steady advance towards universality appears to us to be a necessary object of policy. The question at issue is what speed of development can the country afford.

541. Although we recognize a measure of economic importance, for the reasons stated, in primary education, we must concede a prior claim to secondary, technical, commercial and higher education. The key posts in our national life require such preparation. The primary schools themselves depend upon an output at the secondary level sufficient to furnish the improved staffing standards to which we refer in paragraph 546. Moreover, these needs are immediate. It is clear that a too hasty preoccupation with the extension of the primary system must not be allowed to detract from our fulfilment of this need. Further, it is necessary to consider the balance of the system as a whole. Already, as we explained in Chapter VIII, the overlap at the base of the educational pyramid creates formidable social and personal problems and any further aggravation of the disproportion between primary and secondary education must still further increase these difficulties.

The Quality of Primary Education

542. The Commission cannot accept the view expressed by some advocates of immediate universal primary education, that educational standards must give way before the irresistible force of numbers. Even if primary education has to be given under a tree by an unqualified teacher, they say, it is better than nothing, for equity and public sentiment alike require that such expedients should, if necessary, be accepted.

543. For reasons that we have made plain in Chapter III, we cannot accept this standpoint. Though we recognize the argument of equity, we do not think that, at this stage in our history as an independent nation, it can override the pressing requirements of economic progress. Those requirements demand, as we have shown, that the recent decline in the standards of primary education should be arrested and reversed. We are not, of course, advocating the ideal primary school, expensively housed and generously staffed with high grade teachers; to do so would be asking for the moon. But it is our considered judgment that a measure of improvement in the provision we make is essential, in order to raise considerably the general quality of our schools. The improvements that we have in mind are those recorded in paragraphs 132 to 152 and the reader is advised to refresh his recollection of that passage before proceeding with this chapter.

544. Quality, as we there showed, is the end product of a number of reforms, but we identify two as having especial importance for the purpose of this chapter. One is the improvement of the professional quality of the teacher; the other is the uplifting of his professional morale. We are here concentrating on those reforms that affect the teachers, for the simple reason that 85 per cent of the cost of primary education goes into teachers' salaries, so that changes that affect teachers also control the rate of advance towards universality that can be achieved with a given rate of expenditure. That is not to diminish the importance of a better provision for school equipment and other improvements, but as such provision has only a minor influence on the rate of growth, we do not emphasize it here.

545. Unfortunately, since the first Part of our Report was drafted, there has been some further deterioration in the staffing of primary schools, as shown in the following table:—

Table VII
Percentage of Teachers in Primary Schools by Grade

<i>Grade of Teacher</i>	1964	1965
	%	%
P1	5·3	4·2
P2	9·4	9·2
P3	44·0	43·3
P4	9·6	8·3
Unqualified	31·7	35·0

546. We have considered very carefully the degree of improvement that is possible. This is a question of a balance of advantages. If, for example, we were to envisage a pattern which might well be regarded as desirable for the primary school, consisting of one—P1, two—P2s, four—P3s and only one unqualified teacher per stream, the cost of such a reform would take up the greater part of the resources that are likely to become available, leaving barely enough to enable the system to keep pace with the growing child population. We have, therefore, settled on a staffing plan of a less ambitious character, which nevertheless represents a significant improvement on the present level of

staffing. This plan requires one—P1, one—P2, four—P3s and two unqualified teachers per stream. Such an arrangement presupposes the double-streaming of one third of the schools and at the same time the recognition of the head teacher as supernumerary in terms of classroom responsibilities in every school. We think that there are strong educational reasons for double-streaming wherever conditions make this possible; at the same time, such an organization of our primary schools can occasion considerable savings. It is clear that denominational considerations should not be allowed to stand in the way of the double-streaming and consolidation of schools, though in some places joint sponsorship, of the kind suggested in paragraph 63, may be helpful. In order to introduce the proposed staffing plan generally, we envisage that the Government will have to intervene to secure a more equitable distribution of trained teachers.

547. It may be noticed with some concern that it has been necessary to retain two unqualified teachers in every stream and we share this feeling, since we had hoped that a faster reduction in the participation of unqualified teachers would have proved possible. However, the disadvantage of employing such teachers is somewhat reduced by the employment of a supernumerary head, who should be able to assist and supervise his unqualified colleagues and perhaps to organize their work at the school in a manner more commensurate with their limited educational background. The continued retention of unqualified teachers in substantial numbers under these conditions is the price which must be paid for adequate growth in a period of rapidly rising child population and we think that, on balance, the payment is justified.

548. In addition to making the head supernumerary, we propose that he should be given a responsibility allowance of £42 per stream, as recommended by the Lawrence Commission on Teachers' Salaries, in place of the present £18. This step we consider to have great importance in view of the supervisory and leadership role of the head teacher. We have already set out our reasons for this recommendation in paragraphs 128 to 130. It is on the head teacher that we largely rely for bringing about a considerable improvement in the standards of primary education and in the professional conscience of the teachers. It is, therefore, very important that headships should go to experienced and able teachers carefully selected for the purpose.

549. The morale of the teaching force is influenced by a variety of circumstances, not all of them financial, and we have dealt with this important subject at length in paragraphs 386 to 390. However, the level of teachers' salaries clearly occupies a prominent place in the list. It is, of course, impossible to forecast the trend of salaries in the next 15 years, as this depends on public policy, the future level of prices and other economic influences that cannot now be foreseen. We have, therefore, calculated the future costs of primary education on alternative assumptions about teachers' salaries. When a choice of these alternatives comes to be made, it is, in our opinion, necessary that the Government should ensure that the trend of teachers' salaries does not dip below the trend of salaries generally, and indeed shows, if possible, some improvement in comparison with salaries as a whole. We

offer this recommendation in view of the paramount need to restore the depleted reserves of confidence in the teaching profession and in so doing to counteract the present drift from teaching into other professions, particularly in the higher grades. In our cost calculations, we have assumed a somewhat lower rate of increase in the salaries of unqualified teachers.

550. We deal in paragraphs 558 to 560 (below) with the conditions necessary for the introduction of what is commonly but incorrectly termed "free" primary education. For the present, we assume that fees will continue to be levied and that a rise in the level of fees commensurate with the anticipated rise in family incomes will be necessary and will involve no additional burden on the community in terms of real income.

Table VIII

The Cost of Primary Education Related to the Rate of Expansion and the Resources Available

<i>Year</i>	<i>Eligible Child Population + 1,000</i>	<i>Enrolment + 1,000</i>	<i>Enrolment as % of Eligible Population</i>	<i>Resources Available £ mil.</i>	<i>Cost £ mil.</i>
ALTERNATIVE 1					
1965	1,702	1,034	60.7	5.2	5.2
1970	1,986	1,257	63.3	7.1	8.0
1975	2,347	1,530	65.1	9.8	10.7
1980	2,798	1,860	66.5	13.4	13.9
ALTERNATIVE 2					
1965	1,702	1,034	60.7	5.2	5.2
1970	1,986	1,257	63.3	7.1	7.5
1975	2,347	1,683	71.7	9.8	10.4
1980	2,798	2,252	80.5	13.4	13.6

NOTES.—

1. Alternative 1 represents an average annual increase in teachers' salaries of 3% and Alternative 2 of 2% (unqualified teachers at one half this rate). As indicated in paragraph 578, the Commission does not express any preference for either alternative, as the choice will depend on circumstances.
2. The normal staffing of a single stream is 1-P1, 1-P2, 4-P3's and 2 unqualified teachers, the head teacher being supernumerary.
3. One third of the schools are of two or more streams.
4. Fees net of remissions: 1965, 60/-; 1970, 60/-; 1975, 80/-; 1980, 100/-.
5. Allowance is made for the increasing costs of administration by the local authority, including administrative and supervisory salaries, which are assumed to advance at the same rate as teachers' salaries.
6. The school equipment grant is assumed to be increased from 15/- to 20/- per pupil, partly to provide for improvements in teaching and partly to accommodate increases in cost.
7. The allowances of head teachers are raised from £18 to £42 per stream.
8. The calculation of available resources is based on a 6½% annual increase in the revenue.

The Rate of Progress Towards Universal Primary Education

551. The conclusions to which we are driven can be seen in tabular form in Table VIII. This table discloses both the rapid rate of increase in our eligible child population (64 per cent higher in 1980 than in 1965) and the very high cost of primary education. We have worked out the costs involved on the alternative assumptions of a 2 per cent or a 3 per cent average annual increase in teachers' salaries: if any other average rate of change actually takes place, the cost figures, and therefore the percentage enrolment figures, would have to be adjusted accordingly.

The Pastoral Areas

552. It will be seen that, on the basis of a 3 per cent average annual salary increase, we expect that 66 per cent of the children will be in primary school by 1980; and that assuming a 2 per cent increase the enrolment would be in the region of 80 per cent. A 66 per cent enrolment in 1980 presupposes an annual increase of 4 per cent throughout the period from 1965 to 1980; and an 80 per cent enrolment in 1980 would require an annual increase of 4 per cent from 1965 to 1970 and 6 per cent from 1970 to 1980.

553. The cost figures do not include any contribution out of revenue for the building of new primary schools or additions to such schools and it is difficult to avoid the conclusion that such building must continue to be carried out by the community on a self-help basis, except in urban areas. *We wish to urge most strongly the importance of diverting the impulse towards self-help from tasks in the secondary school field which are beyond the resources of the community (see paragraph 236) towards essential work in connexion with primary education (see paragraphs 100-102 and 141).*

554. A detailed study of Table VIII will reveal the number of variables involved. The variable which is most influential in respect of cost (apart from salary increases) is the level of staffing and the level chosen is considered by us to be the most economical that can safely be recommended during the ensuing period of abnormal growth. *We wish to emphasize the importance and urgency of a policy of double-, or even triple-streaming, wherever circumstances allow, both on economic and on educational grounds.*

555. Our estimates of revenue allocations for primary education are based on an annual increase of $6\frac{1}{2}$ per cent, a figure which we understand to be compatible with the Government's Development Plan, 1964 to 1970. This is a high target, having regard to the economic hazards to which this country is for the time being exposed and probably presupposes an increasing share of the national income being taken for revenue during the period covered by our calculations. It also assumes some increase in the apportionment of national resources to primary education. The resources available represent those contributed both by Central and local government and, being net of fees, represent the aggregate burden on public funds.

The Population Factor

556. The figures of percentage enrolment given in the previous paragraph are based on the population forecasts shown in Appendix 5 of Part I. The projections in this Appendix rest on the assumption that the birth rate remains

constant at its present high level and the death rate declines. Assumptions of this order produce an increasing average rate of annual growth of the population, rising from 3.11 per cent in 1965 to 3.49 per cent in 1980 and something approaching 4 per cent by the end of the century. This is a very high rate of growth and the formidable cost of primary education is partly attributable to the consequent rapid rise in the child population.

557. It is, of course, impossible to forecast at this juncture whether this high growth-rate will be maintained. There is little room for doubt that the death-rate, especially among infants and children, will continue to decline with the spread of medical services, better standards of feeding and improved hygiene. The future trend of the birth rate, on the other hand, is less easy to foresee. We, therefore, confine ourselves here to the observation that in the event of a decline in the birth-rate, say, from 1970 onwards, the approach to universal primary education will be accelerated. As a result of such a decline, it is not impossible that 80 per cent to 100 per cent of the children could be accommodated in the primary schools by 1980, depending on the movement of salaries during the previous period.

The Problem of Free Primary Education

558. We come now to the problem of transferring the burden of fees from the parents to the community as a whole. As we showed in the second paragraph of this chapter, the question is one of transferring this burden from the shoulders of parents to the community in general. The total amount collected in fees is a considerable sum of money and will become greater as the enrolment increases. The present fee revenue (1965) is about £3.2 millions and by 1980, on the assumptions in Table VIII, it will increase to £9.3 millions on the basis of a 66.5 per cent enrolment, or £11.3 millions if an 80.5 per cent enrolment is attained. These are very large sums to find by way of *new* tax revenue and to find them it will be necessary to discover new, or to improve old, ways of raising money from the community.

559. The Ministry of Local Government, the body mainly responsible for questions concerning local government revenues, have advised us that there is no form of tax at present known to that Department capable of supplying the revenue of local authorities in substitution for school fees. Part of the difficulty, we are told, is in respect of ease and efficiency of collection and school fees have a natural attraction for the local government officer in this respect. However, it is still early days. The substitution of communal for parental responsibility calls for a psychological change in the community that cannot be encompassed overnight, for it involves the supersession of the family or clan by the community as the main object of loyalty. This process of growth towards ever widening circles of obligation is one that must be carefully and continually fostered by the Government, particularly through its information services, and we urge that this should be done.

560. We would, however, add one rider to our remarks on the question of freeing primary education from fees. It cannot be done in advance of universality, that is, until there are enough schools and teachers for the whole

population of school age. Consequently, if the assumptions in this chapter are correct, it cannot be introduced before 1980, or for that matter for some time after 1980. *We believe that the intervening years should be used by the Government to get over to the people by every possible means their common responsibility for social services.* It ought to be possible to do this, as it involves nothing more than an extension and a consolidation of the principle of *Harambee*, already manifested in community projects.

The Pastoral Areas

561. A 60 per cent enrolment in 1965 on a national basis conceals very wide differences between different areas of Kenya. The figures in Table IX relate to 1964 and show those divergencies very clearly.

Table IX
Enrolment by Province in 1964 Related to Child Population in the
Age-Group 7-13 by Province

<i>Province</i>	<i>Child Population + 1,000</i>	<i>Enrolment + 1,000</i>	<i>Percentage Enrolment</i>
Central	265.9	250.0	94.0
Coast	120.3	55.1	45.8
Eastern	337.4	166.9	49.5
Nairobi	29.0	39.8	137.3
Nyanza	354.1	193.7	54.7
North Eastern ..	44.8	0.9	2.1
Rift Valley ..	373.7	144.2	38.6
Western	232.5	164.2	70.6
Kenya	1,757.7	1,014.8	57.7

562. The Nairobi Area is anomalous in this respect, since a large number of children from other parts of Kenya, temporarily resident with house servants and others, go to school in Nairobi. If these children were deducted from the Nairobi total of enrolments, they would bring enrolment in the Central Province to the threshold of universality. The Coast, Eastern and Rift Valley Provinces on the other hand are well below the national average and in the case of the last two this circumstance is attributable to the low enrolment in the predominantly pastoral areas of those Provinces. In the North-Eastern Province, an entirely pastoral area, enrolments are at present negligible. *In our opinion, the main effort of the Government should be directed towards raising the level of enrolment in those areas in which the percentage falls seriously short of the national average.* This can be done, in part, by manipulating school fees, so as to provide financial inducements in the areas of low

enrolment. Since a lowering of school fees will cause a loss to the revenue of the local authorities concerned, it will be necessary at the same time to raise the Central Government grant in those areas, while reducing it in the favoured districts, where the local authority will be in a position to recoup itself out of higher fees.

563. It is, however, amply clear that financial measures alone will be ineffective in the pastoral areas where nomadism continues to dominate the way of life of the people. We have given special attention to this problem in paragraphs 510 to 512 and we wish here to underline our suggestion, that a special Interdepartmental Committee should be set up to study the problems of these areas and to make recommendations on all aspects of social and economic life. This proposal arose out of our conviction that the educational problems of these areas could not be considered in isolation from general economic and social development.

564. Some small contribution to education can be made by the extension of boarding, as we suggested in paragraph 512, and we have made a small allowance for it in our calculations in Table VIII. However, boarding financed out of public funds cannot provide the main solution to educational development, owing to its exorbitant cost, as can be seen very clearly from the figures in Table X. For the purpose of this table- we considered the counties of Tana River, Garissa, Wajir, Mandera, Isiolo, Marsabit, Narok, Olkejuado, Turkana, Samburu and West Pokot, but there are also borderline areas that we have not included.

Table X

Cost of Boarding to Public Funds in the Pastoral Areas in the Event of Universal Boarding Primary Education There

<i>Year</i>	<i>Children of Primary School Age</i>	<i>Cost of Boarding if all Boarding</i>
1965 ..	168,500	£ 3,370,000
1970 ..	196,400	3,928,000
1975 ..	232,000	4,640,000
1980 ..	272,100	5,442,000

565. If, then, general boarding education is to be beyond the Government's resources, what partial alternative can be considered? The "manyatta school" was suggested to us during evidence given in the North-Eastern Province, meaning the attachment of a teacher to a nomadic group, who would move with the group from place to place. We think that the suggestion is worth serious consideration for Primary I to IV, but not beyond.

If adopted, it would entail special training for teachers drawn from the nomadic tribes. Owing, however, to the present very low output of the primary schools in those areas, any rapid expansion on these lines cannot be expected; and it may well be found that the limited manpower available could be used to greater profit in some other way. Nevertheless, we suggest that a pilot project should be started to test the viability of the scheme and to indicate the possibilities of its extension. The manyatta schools could then be used to feed boarding intermediate schools for Primary V to VII. It may be that in these schools the remarks that we have made in paragraphs 186 and 187 about school radio will be found to have a special cogency.

566. It is, however, our belief that, until the people in these areas come to live in settled communities through the introduction of ranching, educational progress on a large scale cannot be expected, for education is itself essentially a settled business, drawing upon human and material resources that only a permanent community can give. This brings us back to our plea for national planning. Manyatta schools and boarding education may palliate the deficiency to some extent, providing part of the manpower required for development, but they cannot provide any general or permanent solution. Piecemeal planning, on the other hand, can be worse than useless. What is required is an economic plan which takes into account the creation of viable settled communities, upon which the educational and other social services can be based.

The Capital Cost of New Schools

567. The steady expansion of the primary school system envisaged in this chapter will entail the building of many new schools and of extensions to schools. Our calculations so far have related to recurrent costs: what are likely to be the consequences in terms of capital expenditure?

568. In the populous country areas, primary schools have traditionally been built by self-help, either in mud and wattle, or in more permanent materials. Since both labour and materials have been contributed, in the main, by the community served by the school, it has been the practice for the capital outlay to be ignored by those responsible for educational planning. In the urban areas, on the other hand, it has been necessary to satisfy sanitary and building requirements laid down by the municipal council. Construction has been in permanent materials and has constituted a charge against municipal revenues. In the remoter pastoral areas, such as Wajir or Marsabit, it has also been necessary to erect permanent school buildings by contract and to bring in materials for the purpose.

569. In paragraphs 139 to 141, we referred to the need for improvements in primary school premises and we suggested how the impulse towards self-help might be reinforced by the provision of materials by the local authority. Referring to the two alternative schemes of development in Table VIII, we calculate that the capital cost of new schools, or additions to

existing schools, would amount to a total of between £13 millions and £16 millions over the period from 1965 to 1980, including the requisite teachers' houses. It is difficult to give any estimate of cost for school buildings erected in urban areas, partly because of the difficulty of forecasting the growth of such areas over the coming decades, but we suggest a figure of £ $\frac{1}{2}$ million during the period from 1965 to 1980. Whether these capital sums can be raised or not depends on the success of the Government in attracting funds for such purposes. It may become possible within the fifteen year period to meet some part of the cost out of local bond issues and certainly in Nairobi most if not all, of the capital involved should become available out of revenue surpluses. If insufficient funds are forthcoming for schools in the rural areas, it will be necessary to build in semi-permanent construction, but we hope that sufficient supervision will be provided to ensure adequate building standards and correct dimensions.

CHAPTER X

The High-Cost Schools* in Relation to the National System of Education

Introduction

570. In Chapter II we devoted many paragraphs to the creation of national unity through education and we put forward some proposals for bringing together into the confines of a single system the different branches that previously served the four main racial communities. The difficulty and complexity of this problem persuaded us that it deserved closer examination and we give in this chapter the results of a more detailed study of the differences which separate the former European Secondary Schools from their former African counterparts. We approach this problem here from the psychological and the practical angles respectively, but before we disclose the results of our enquiry, we wish to put forward two general observations. First, the situation is not a static one. The racial composition† of the schools has changed significantly in the last year or two, while beneath the surface modifications in school administration have been made or are contemplated, which have narrowed the gap appreciably between schools of various origin. Secondly, we believe that it is a mistake to look on the problem of unification as one which affects only the high-cost schools. The problem of integration is not merely a matter for the former European and Asian schools alone, but for all the schools of Kenya. Thus a completely national system is one that is non-racial in all its parts and is accepted as such by the public generally. Consequently, all institutions, not simply the high-cost schools, need to be considered in the light of the recommendations in this chapter.

571. It will be seen that the creation of a fully national system in this sense cannot be accomplished overnight, but must be regarded as a matter for sustained effort over a period of years. Nevertheless, the need to proceed by stages must not be construed as setting a limit upon the necessary changes. We believe that it is essential to press forward towards the full unification of the national system with all possible vigour. We have already drawn attention to the imperative need to revise upwards the standards of feeding in the former African sector. Changes at the high-cost schools, of the kinds described in this chapter, should be prosecuted with an equal sense of urgency. Thus, we recommend the adoption of measures and the application of pressures, designed to bring greater cohesion and unity into the national system of education without seriously endangering any truly educational values.

572. Before embarking on the subject of this chapter, we wish to draw attention once again to a recommendation made in paragraph 56 with

* In the category "high-cost" schools we include all former European and Asian schools, which charge fees in excess of those demanded in the former African schools and maintain a relatively higher level of costs.

† The number of African pupils at the three "high-cost" schools considered in this chapter in July 1965 was Prince of Wales School—109, Duke of York School—77 and Kenya High School—76.

respect to the Governing Bodies of the high-cost schools and their staffs. We recommend that full advantage should be taken of the forthcoming reconstitution of Boards of Governors in accordance with the Education (Boards of Governors) Order, 1964, to render such Boards more fully representative of the people of Kenya. We believe that the appointment of a person who is not a citizen of Kenya as a Governor of a school maintained or assisted out of public funds should be regarded as exceptional.

Psychological Problems

573. History has many examples to show that revolutionary changes are never accompanied by an equally revolutionary change of outlook on the part of the entire population. Old habits of mind, the security inherent in old relationships, a nostalgic spirit in some, a natural conservatism in others, all tend to slow down the process of psychological adaptation to the new conditions. In Kenya, as in every country where colonial rule is brought to an end, Independence was a revolutionary change, for which there had indeed been some small measure of preparation during the final years of the colony, but which nevertheless, when it came, caused widespread changes in the whole basis of Kenya society. The whole structure of social relationships was for the time being in a continual process of adjustment and readjustment. For many, particularly in the immigrant communities, the problem of reorientation was not an easy one.

574. The uncertainty, as it has affected the schools, has been increased by the citizenship provisions of the Kenya Constitution. These allow persons who are citizens of the United Kingdom and Colonies or of the Republic of Ireland facilities for becoming citizens, if they apply in the prescribed manner before 12th December 1965. In consequence of this extended option, it is at the present time premature to attempt to classify the members of the immigrant communities according to their possession, or otherwise, of Kenya nationality. At present, many members of these communities appear to be uncertain whether they will in fact elect to become Kenya citizens. In such a state of uncertainty, psychological adjustment to the implications of Kenya citizenship is difficult, if not impossible. Thus, only after 12th December 1965, will the immigrant element in the schools resolve itself into committed Kenya citizens on the one hand and foreigners on the other. In the intervening period, it is perhaps hardly surprising that a truly national sense of purpose should not be fully developed; what is surprising is that it should, in such circumstances, have made as much progress as it has.

575. One feature of the period of indeterminacy in respect of Kenya nationality that may remain after 12th December 1965, is the attitude towards the children of expatriates. Though the number of expatriate Government officers is likely to decline continually over the next few years, it does not follow that the number of expatriates in general will fall, that is, of overseas commercial and industrial representatives, members of staff of foreign embassies and governmental or intergovernmental missions and others more or less temporarily resident in the country. We are, therefore, likely to hear the question asked, ought not certain schools to cater for the needs of the foreign residents in Kenya?

576. In some countries, following the example of Geneva, an International School has been established in the capital city to “serve an international community” and to “offer internationally oriented educational facilities to nationals of the host country”. A guiding principle of such schools is that “no one government or nationality should have the decisive voice in its policies” and that they must “offer preparation along the lines of at least two educational systems”. International schools are affiliated to the International Schools Association, which has been accorded the status of a Non-Governmental Organization by the United Nations (1956) and the United Nations Educational, Scientific and Cultural Organization (UNESCO) (1963). Among the members of the Association are the International Schools of Ghana and Tanganyika.

577. We do not wish to detain the reader of this Report with the arguments for or against an International School. We do not, however, think that this form of school organization provides an appropriate solution for the former European schools. Being divorced from any national system of education, an International School could not fulfill the requirements that we envisage in our section on “National Unity”. This is so important and so critical a requirement of Independent Kenya that we cannot, at the present stage, afford to devote any part of our public system to an objective unconnected with the consolidation of our national life. It is, indeed, arguable that our ability to contribute effectively to the life of nations depends upon our establishment first of a solid national base here in Kenya; just as a secure home for a child is often found to be a necessary basis for relaxed and constructive participation as a member of society.

578. We return, then, to the question already posed, ought certain of our schools to make special provision for the interests of the foreigners in our midst? Ought the chosen schools to be oriented in some degree towards overseas examinations or university entry? So far as Kenya citizens are concerned, we have no hesitation in saying that their secondary education should be oriented towards the school examinations taken in Kenya and admission to the University of East Africa; and that this orientation applies equally to pupils of any race. If any Kenya citizen has reason and opportunity to enter a foreign university or place of learning, that is his affair. No specific provision can or should be made for such a contingency. It is, however, true all the same, that the examinations now taken in secondary schools under the auspices of the Cambridge Local Examinations Syndicate are accepted as a basis for entry to British and Irish universities and are often regarded as providing sufficient evidence of academic attainment for the purpose of admission to many universities in the United States, Canada and elsewhere. Similarly, it is intended that an East African schools examination, with which we treated in paragraphs 295 and 296, when eventually offered, should command similar academic respect abroad and that steps should be taken to invite such recognition.

579. We also think it doubtful whether—except incidentally—any special provision can or should be made for the expatriate element. The East African orientation of the curriculum should be maintained in its integrity. At present, this bias is not very pronounced and we gave reasons in

paragraphs 275 to 278 for expecting that the development of such a tendency can only come gradually and as a result of much preparatory work. We do not, however, think that it is the business of Kenya schools, maintained or assisted out of public funds, to interfere with the evolution of an East African concentration for the benefit of pupils who belong to other countries. Kenya cannot undertake to educate young Englishmen or young Americans after the manner of their own countries. In fact, the disadvantage to them of using a partly foreign subject matter may well be overrated and the broadening influence of studies in a foreign milieu overlooked.

580. We have treated this problem of the foreign element in the section on psychological attitudes, because the habit of looking over one's shoulder at the interests of the expatriates is one of the influences which, in our opinion, tends to hold up a properly national orientation in our schools. It is, of course, sometimes argued that this concern of the educational welfare of the expatriate children has a prudential motive, the assumption being that valuable technical assistance may be lost to Kenya unless the experts concerned can be assured of educational facilities for their children of a character exactly similar to those offered in their country of origin. We do not subscribe to this argument. In the first place, the English oriented character of the traditional curriculum in the former European schools is in any case of little interests to Americans or Germans, Russians or Chinese. In the second place, many overseas experts are now given financial facilities for boarding education for their children in the home country and many might prefer to use such opportunities during the period of a limited contract of service in Kenya, rather than uproot them and bring them here. The tendency for the long-term foreign resident to be replaced by the short-term contract officer may very well accentuate this trend. Finally, though precise evidence on such a matter is difficult to obtain, no information has come to our attention that has induced us to think that the overseas recruitment of experts would be seriously affected by the withdrawal of facilities for an English-type curriculum in Kenya.

581. The conclusion that we reach from these reflexions is that the presence in some of our schools of a sizeable foreign element must not be allowed to distract us from the national and regional bias in the curriculum. Provided that we maintain the standards of education offered, such a pre-occupation is, in our view, unlikely to jeopardize the real interests of those foreign nationals who elect to place their children in our schools.

582. Under the general heading of this section, we wish in conclusion to touch on the most difficult problem of all, the creation of what we may call "racial unconsciousness". It may seem strange that so positive a word as "creation" should be used in relation to the absence of racial feeling, yet we believe that in the situation inherited by the Kenya schools a positive effort is required. To enable the schools to be a "melting pot" in the American sense, there must be co-operation on all responsible sides to secure the single end of "racial unconsciousness". This calls not only for a very positive attitude on the part of the staff, but also for the cooperation of parents. The racial communities of Kenya, aided and abetted by an unfortunate town planning in the urban areas, still live unto themselves to a deplorable extent.

The efforts made by the Parents' Association of Hospital Hill School is an example of what can be done to exploit the common interest of parents in the education of their children for the sake of closer intercommunal understanding and insight. Perhaps the most important step of all is to make parents of all races aware of the existence of this problem and of the need to overcome it. It is so easy to sink back into the familiar security of one's own racial environment and to forget about the rest of the world. Self-isolation of this kind is hostile to the concept of Kenya unity or nationhood. The schools should help to make and keep consciences uneasy, so long as separation of this order continues.

Practical Considerations

583. In paragraph 44 we spoke of the influence of fee structure on the unification of the school system and we recommend as a first step a closer examination of costs in the high-cost schools. It is, after all, legitimate to suppose that schools established for the favoured and comparatively wealthy European community in colonial days are as much out of gear with the present needs of Kenya in purely material respects as the former African schools are known to be in a contrary sense in the dietary domain. We have, therefore, examined the accounts of certain schools and we put forward in this section certain practical suggestions for economies that can be entertained, we believe, without noticeable detriment to educational standards.

Table XI
Selected Comparative Costs per Pupil at Selected Boarding Schools, 1964

Item of Expenditure	Expenditure per Pupil, 1964, £				
	AGHS	AHS	POW	DOY	KHS
Teaching Staff	59·6	57·1	79·8	92·9	89·7
Administrative Staff	5·0	4·9	9·4	9·8	11·7
Kitchen Staff	1·2	2·2	12·0	13·3	9·0
Ground Staff	1·8	2·5	3·7	5·0	5·5
Boarding Expenses (Food, etc.)	20·2	22·4	47·8	39·3	44·9
Office Expenses	1·0	1·0	2·5	2·6	3·3
Tuition Equipment	6·2	5·2	7·6	7·4	5·2
Transport and Travel	1·5	2·1	3·1	1·9	0·9
Electricity, Water, Conservancy, Fuel	4·1	4·3	11·7	13·8	17·5

NOTE.— AGHS { Alliance Girls' High School } former African Schools.
 AHS { Alliance High School }
 POW { Prince of Wales School }
 DOY { Duke of York School } former European Schools.
 KHS { Kenya High School }

584. Before we go into detail, we would like to say that the Governing Bodies of the high-cost schools, whose expenses we examined, were already taking seriously the content and spirit of our recommendations in the Report, without at this stage, so far as we could discover, any promptings from the Government, and that some real progress has been achieved. We would further like to say that, in making our recommendations, we had constantly before us the importance of doing nothing that might impair the educational efficiency of the schools; and also that there were certain historical circumstances surrounding these schools that tended to impede too drastic a curtailment of costs. We will now consider the problem under various headings.

585. *Teaching Staff.*—The higher teaching staff costs at the “high-cost” schools appear to be due mainly to the employment of an almost wholly graduate staff at these schools. Moreover, some of the teachers at the high-cost schools have given to them many years of service, a circumstance reflected in their high incremental position. Since only basic salaries are charged to the school accounts, the mere fact that the majority are expatriates has nothing whatever to do with the greater salary costs at these schools. It can reasonably be expected that present differences will be modified to some extent as a natural consequence of the ordinary turn-over of staff, but a final equation can only come about if similar staffing policies are pursued in all schools. In Appendix 9, we suggest a standard for the teaching staff of secondary schools that is, in our opinion, appropriate and should be adopted in all schools.

586. Sooner or later, and perhaps sooner than many people think, it will become possible to staff these schools entirely from local sources. A steady falling away in overseas recruitment must therefore be expected, though less steeply in the case of women teachers. We have asked ourselves whether some overseas recruitment could be avoided by the employment of local S.I. teachers. We have reached the conclusion that by the employment of S.I. teachers, the graduate proportion could be allowed to fall to two thirds without adverse educational consequences. One temporary difficulty attendant upon such a policy might occur if the African members of staff were found to be clustered in the non-graduate category. Since, however, there should be more graduate teachers available at about the same time as the output of S.I. teachers from Kenyatta College becomes numerous, it ought to be possible to avoid such an imbalance by judicious recruiting.

587. The efforts already made by the high-cost schools in an unfavourable market situation have led in certain cases to a laudable but, we think, injudicious practice of offering certain emoluments in kind to local teachers by way of “attractions”. Such inducements are not offered by other schools and we believe that the practice is wrong in principle and ought to be discontinued. In the case of grant-aided teachers, it is also in contravention of rule 8 (1) of the Education (Grants-in-aid of Assisted Schools) Rules.

588. *Administrative Staff.*—There appeared to be a general tendency to incur staff costs for administrative purposes that were twice as high as those in the former African schools and, in one instance at least, were high, as far as we could gather, in comparison with the level in some boarding schools in England. On the other hand, we have already noted in paragraphs 398 and 399 the need to improve the administrative services available in the former African Schools as a means of relieving teachers, and particularly head teachers, of excessive burdens and thereby increasing the effective teacher supply. We have considered this matter in some detail and we set forth in Appendix 10 a list of posts and salary scales which we feel to be adequate and appropriate for the various sizes and types of secondary school and training college for teachers.

589. *Audit Fees.*—Among the administrative costs, we found some very high audit fees of a kind usually associated with institutions that rely on the

auditor to do a certain amount of "remedial" accountancy as well. We felt, however, that such fees were hardly consistent with the high administrative salary costs incurred in these schools.

Table XII
Audit Fees Charged at Selected Schools, 1964

	£
Alliance Girls' High School	110
Alliance High School	60
Prince of Wales School	375
Duke of York School	330
Kenya High School	250

590. The audit problem among secondary schools and training colleges in Kenya is likely to become acute with the recent proliferation of institutions. Moreover, the financial administration of some of the newer schools at the hands of relatively inexperienced administrators and heads is likely to result in waste that Kenya can ill afford. We recommend, therefore, the abolition of external auditing of school and college accounts by professional firms of auditors and the institution instead of an audit unit at the Ministry, decentralized by Province, with powers of auditing and financial supervision. By inspecting books more than once a year, a Ministry auditor should be able to bring about improvements in book-keeping standards and at the same time identify possibilities of savings and secure economies. In our view, it is difficult to control expenditure by the inspection of estimates and audited accounts at the Headquarters of the Ministry in Nairobi and such control is likely to be largely ineffective. Local Ministry auditors, on the other hand, can keep a much stricter watch over expenditure and they can also assist inexperienced heads with their estimates and bring them into closer conformity with real requirements. In their capacity as accounting supervisors, they would audit school accounts not merely for the purpose of verifying the figures but also as an exercise of critical analysis. It is our opinion that a system of supervision and auditing on these lines would secure on balance substantial savings to the Government. It is, however, essential that audit units of this kind should remain firmly within the responsibility of the Minister of Education, in order to ensure that genuine educational benefits are not sacrificed to purely financial advantages.

591. *Office Expenses.*—We felt that some saving could be made under this heading by careful economy and a greater degree of frugality in the purchase and use of materials.

592. *Feeding.*—We have nothing to add to paragraphs 49 and 50 on the cost of food. We believe, however, that at certain schools a high feeding cost is unavoidable owing to the uneconomic size of feeding units; and that this extends both to kitchen staff costs and to the actual cost of meals. Since a large turnover is involved, we recommend serious consideration of sufficient capital investment to amalgamate feeding units (kitchens and dining rooms) on a scale sufficient to secure the maximum economies. Capital investment of this kind, having the object of reducing recurrent expenses, has a high value in Kenya conditions.

593. In this general connexion, we recommend that careful thought be given to cafeteria systems of feeding. They are much more flexible than table service and at a time of increasing enrolments flexibility is a virtue. More-

over, the capital cost is substantially less than is usually necessary for table service. Feeding arrangements of this kind are in widespread use in schools and colleges abroad.

594. *Electricity and Telephone Charges.*—We found that the cost of electricity and of the telephone service appeared to be high for reasons that were not wholly clear to us. In the former case, the high cost may be attributable in part to an unduly elaborate layout, but we could not be certain of this. We recommend an expert inquiry by the Ministry of Works, Communications and Power into both aspects of expenditure at these schools.

595. *Care of Grounds.*—The maintenance of grounds should in some cases afford opportunities for economy both in staff and materials. We are not advocating slovenly maintenance, but a due sense of proportion, having regard for the educational purpose of the expenditure involved. We suggest that pupils might well undertake the care of flower beds surrounding dormitories and that this is not without educational value.

596. *Medical Expenses.*—It would, we feel, be entirely proper that parents should pay the whole capitation fee charged in respect of the school doctor. There appears to us no justification for remitting the whole or any part of the capitation fee in respect of teaching or administrative staff.

597. *General Comments.*—We wish to emphasize the importance of our suggestion in paragraph 53 that the former European and Asian schools should henceforth be maintained under unified grant rules applicable to all schools. Admittedly, the central purpose is to institute a closer cost control; but in the circumstances now existing such financial supervision is essential, though it must be exercised wisely, in the spirit of paragraph 583 (above).

598. What general conclusion do we reach from these recommendations? First, we are fully persuaded that the schools must continue to offer an education of the highest quality of which they are capable and that the advantages of such an education must be at the disposal of the citizens of Kenya without fear or favour. We need the special contribution of these schools to underpin our development. While, therefore, we ask for psychological, curricular and financial changes, we want these changes to be organized in such a way as to secure the maximum educational benefits to the people of Kenya. Secondly, we do not visualize the process of uniting all schools in a single national system as an attack on the schools of the former privileged classes. We see it rather as an evolution of all schools towards a common goal, pressed forward with vigour and pursued without remission. That such changes must radically affect the “high-cost” schools is evident from this chapter; but the former African schools must change also. Finally, we emphasize most strongly the importance of a common national aim. In the recent past, a measure of co-ordination in the policies pursued by the former European schools was produced through an association of the chairmen of the Boards of Governors of these schools. A forum of this kind is an anachronism in Independent Kenya. If there is felt to be a need for such a consultative body, all kinds of schools should be included, in order that greater mutual knowledge and understanding may be fostered and that the unification of the system may be realised the sooner.

CHAPTER XI

The Control and Planning of "Harambee" Schools

Introduction

599. In Part I of our Report, we devoted a special section (paragraphs 100-102) to the important subject of self-help in education. Elsewhere (paragraphs 227-236) we considered in some detail the role of self-help in secondary education and we made certain proposals. The basis of our proposals is summarized in paragraph 236 in the following words:—

“The spirit of self-help is a valuable part of our national inheritance and everything must be done to stimulate and sustain it. We fear, however, that it will soon be quenched, if it is misdirected towards tasks that are beyond the powers and resources of the local community to fulfil.”

600. Such a task is the establishment of so-called secondary schools by the sole agency of self-help. As we recorded on the basis of our personal study of such schools in many parts of the country, “we were much disturbed by the probability that *many of the children in these schools would not in fact receive an education that would justify the description of secondary*”. By “secondary education”, we implied, not merely an academic schooling of the conventional type, but also a general education beyond the primary stage which included an ingredient of practical or vocational training (paragraphs 209-212).

601. Our further study of these schools in the Western and Central Provinces has persuaded us that this judgment was fully justified. We concluded that, with certain exceptions, such schools fell so far short of the essential requirements of a secondary education that *many parents*, now making great sacrifices to pay the high fees, were destined to be bitterly disappointed. Even measured by the standard of the Cambridge School Certificate, it was, in our judgment, virtually certain that most “*Harambee*” schools, in their present condition, would produce disastrously poor results; while others were in grave danger of failing altogether from lack of funds, or teachers, or both. The resentment and political unrest that could flow from such a catastrophe are obvious.

Dangers of Uncontrolled Spread of “Harambee” Schools

602. In the past eighteen months, secondary schools have been established by communities in considerable numbers. We recorded the opening of no less than 50 of them in 1964 in Table IV of Part I and we are informed that at least 30 more have come into existence in 1965.

603. At the time of their inception, nearly all of these schools were unregistered for the purpose of section 56 of the Education Act and in a few cases their existence was hardly known to the Ministry's officers. As the schools were unregistered, the promoters were in conflict with the Law of Kenya and liable to the penalties prescribed by law. We found two reasons that in some degree explained this breakdown in the sanctions of

the law, though they did not justify illegal action. The first reason lay in the administrative confusion produced by the *Majimbo* interlude. In 1963, registration became a Regional responsibility; in 1964, this responsibility reverted to the Central Government. By the time that the machinery of control had returned to the centre, the discipline of the law had already been seriously eroded in some Regions by illegal openings of schools. The second reason lay in the popular response to the contraction of opportunity for secondary education in 1964 and 1965 to which we shall presently refer (*see* paragraphs 609 and 610). The situation was rendered the harder to control by the emergence of defect in the established registration procedure, which we found to be ill-suited to the regulation of self-help activities as we have known them in recent months.

604. We wish to emphasize in the strongest terms our concern about the widespread disregard of the law that has taken place in recent months. Respect for the law is a habit of mind essential to all organized society. If any part of the law falls into contempt, the whole orderly structure is in jeopardy; for those that neglect the requirements of one law to suit their ends may not scruple to ignore other laws that stand in the way of their desires. It is, in our opinion, particularly serious that the law of education should have been weakened by these encroachments, at a time when a strong and progressive direction of our educational affairs is most sorely needed and when an application is about to be made to the World Bank for a large capital sum in support of our school development programme.

605. The weakening of the authority of the Ministry of Education may also have unfortunate consequences for the Government's policy of planned development in Kenya. As we show in the next paragraph, uncontrolled community enterprise is the antithesis of planning and may, moreover, in some degree frustrate a central plan. If "*Harambee*" schools constituted a small element in the total secondary provision, they could be disregarded for planning purposes. In fact, however, they now amount to about a third of the secondary schools of Kenya. Consequently, the Government's plan for education may be seriously disorganized by this uncontrolled and unregulated activity.

606. The importance of the rule of law can, of course, be argued on behalf of any function of government; but we wish now to draw attention to some specific consequences of unregulated self-help in secondary education:—

(1) We have already referred to our deep sense of disquiet about the educational prospects for these schools. This is based, in the main, on three considerations:—

(a) All the schools seen by us have been understaffed. There appears to be no prospect that the promoters will be able to recruit graduate teachers; many schools have at present no teachers above the level of P.1. Consequently, instruction beyond Form II in such a school is unlikely to constitute a serious contribution to secondary education.

- (b) Classes often contain 45, and sometimes 50, pupils. In these circumstances, the correction of work becomes an overwhelming burden and teaching degenerates into preaching, even at the hands of skilled and experienced teachers.
- (c) We saw no “*Harambee*” school with a laboratory. The burden of providing and maintaining a laboratory forces upon these schools an almost exclusively “arts” curriculum, which we found to be pursued in a sterile, academic manner. Such teaching is a wholly inadequate response to the true needs of Kenya.
- (2) It is almost invariably the practice of the promoters of “*Harambee*” secondary schools to take over the permanent buildings of a primary school. This is often facilitated in the first year by the existence of a room vacated by Primary VIII; only thereafter does new building for the primary school become essential and this is often carried out in semi-permanent construction. At the same time, P.I. teachers are recruited from primary schools. This practice of robbing the primary schools of their best buildings and most senior teachers is fraught with serious consequences for the primary schools. Already, the qualifications of primary school staff are at a dangerously low level, as we pointed out in Part I of our Report (paragraphs 132-137). At the same time, improvements in primary school buildings are imperative (paragraphs 139-141). To establish secondary schools at the cost of the primary school system is, in our view, a short-sighted policy that may, by still further impairing the efficiency of the primary schools, leave its marks on the effectiveness of our secondary education everywhere.
- (3) The uncontrolled multiplication of unaided schools, which are parasitic upon the primary school system, cannot fail to draw adverse comment from the representatives of the International Bank for Reconstruction and Development, when they examine the details of the Government’s application for capital in aid of the secondary school development programme, *and may jeopardize the success of that application.*
- (4) Central Government planning and uncontrolled community enterprise cannot exist side by side. Unless the Government are in a position to impose controls on the establishment of self-help schools, planned progress towards equal opportunity will be frustrated by the unco-ordinated decisions of individual communities or groups. Moreover, schools may be so sited as to be incapable of proper expansion, inappropriate for school purposes, or separated from the main concentrations of population. Examples of inappropriate siting of all these kinds have been seen by the Commission.

- (5) Perhaps the most serious criticism of uncontrolled self-help in respect of secondary education lies in the fact, already noticed in Part I of our Report, that a project of this kind is well beyond the resources of most local communities. The real burden of capital and recurrent cost of even a one-stream school is very largely unknown to the promoters of these schools and we have, therefore, thought fit to indicate the dimensions of such cost in Appendix 9. The survival of a spirit of self-help in our communities is of the utmost importance to the future of Kenya, but it will be quickly destroyed if, by undertaking tasks that are too big for them, communities experience the frustration of failure. We consider it essential—for the sake of the spirit of self-help as much as for the sake of its objectives—that the impulse towards self-help should be diverted into the performance of tasks that lie within the capacity and resources of a community to discharge successfully. In the educational realm, such objectives can be found in primary education, in limited contributions towards the buildings of maintained secondary schools, or in adult education projects.

The Control of “Harambee”

607. The arguments in paragraph 606 all point towards the need to control the contribution of self-help to education. We are, however, persuaded that a purely negative form of control could do grave damage to the voluntary spirit. Consequently, we believe that the Government’s attitude towards these activities should be governed by two principles. First, it should be made abundantly clear that self-help has a permanent and valuable place in the provision of education. Secondly, Government control of these activities should be firm and complete, yet at the same time constructive.

608. The last sentence draws attention to a paradox, since self-help is by its very nature spontaneous and unplanned. To bring it within the ambit of national planning is, therefore, a matter of some delicacy. The detailed recommendations in this Report have been carefully framed with this object in view. They have also been designed to take into account the psychological and political aspects of the problem of secondary education.

609. Psychologically, the source of inspiration of the “*Harambee*” school is identical with the underlying motives of the Government’s own development programme, a belief in the personal and national importance of education, the constructive and hopeful sentiments that have been released by Independence (“nation-building”) and alarm at the danger of a relative contraction of educational opportunity that might result from the sudden steep rise in the output of primary schools. That this alarm is justified can be seen from the following figures:—

	1964	1965
K.P.E. entries in the previous year	62,125	103,400
Form I enrolment in public secondary schools	8,956	10,981
Enrolment as a percentage of K.P.E. entries . .	14.4%	10.6%

610. It is seen from the above table that, despite a 22.6 per cent increase in secondary school places, the enrolment, expressed as a percentage of those completing the primary school course, actually fell by a quarter. This percentage is an index of opportunity as seen by parents and pupils. The fact (if indeed it was recognized as a fact), that all areas of Kenya would be in the same case in suffering this curtailment of opportunity was no comfort at all. Self-help, a traditional African response to common problems, appeared from the local vantage point to be a natural—and indeed the only—way out of the difficulty. The poignancy of this urge to create educational opportunities by communal effort was at its sharpest in the Central Province, partly on account of the unusually steep rise in the primary school population of the area and partly because the drawing of the provincial boundaries had excluded inhabitants of the Province from secondary school openings previously accessible to them. It is, therefore, not altogether surprising that “*Harambee*” schools made their appearance in greatest numbers in the Central Province, where the promotion of independent schools had a special place in recent history and where the index of opportunity is believed to have fallen as low as 4 per cent in 1964.

611. The lesson of this experience is that Government control of the educational system is likely to be subjected to severe strain at any time, or in any place, where there is a marked decline in the index of opportunity. It must therefore constitute an important objective of educational planning to secure year by year a steady, even if slight, increase in the national index. This may not be easy to guarantee. It requires not only a careful regulation of secondary openings area by area, but also co-ordination with expansion in the primary sector. A corollary of such planning is the adjustment of teacher supply to match the growing requirements of the primary and secondary schools.

612. It may be noted in passing that the scramble for secondary school places, which may be expected to follow a marked decline in the index of opportunity, is liable to provoke strong local and tribal feelings, which are disruptive of a sense of nationhood. We have seen evidence of such emotions in our recent study of *Harambee* schools and their presence has convinced us of the political importance of a plan for education which, as far as possible, avoids these hazards.

613. It will be evident from the foregoing paragraphs that the control of the community-sponsored schools is not merely a question of restraints. On paper, there is nothing inherently difficult in devising and applying a control procedure: indeed, controls over the opening of schools have existed for many years. But such controls, as we have seen, may be blown sky high by the pressure of public opinion, whenever a conviction gains general currency that openings into secondary education, and the kind of life and opportunities to which the secondary school provides the door, are becoming increasingly scarce in relation to the demand.

614. Control, therefore, involves national planning to secure that the index of opportunity is at worst stationery and at best steadily rising. Ideally, such planning should make a sufficient provision in the public secondary school system to ensure a favourable trend in the index of opportunity; but the Government's power to do this depends on the capital resources from time to time at its disposal and a situation could arise, as it did in 1964 and 1965, when the number of new secondary "streams" needed to maintain the index at the existing level was far greater than the financial capacity of the Government to provide them. In these circumstances, self-help must be called in aid and national planning must make room for it. This calls for a wider concept of planning than planning based solely on a triennial, or quinquennial, programme of public school development to match an inter-governmental capital grant of that duration.

615. In a time of declining opportunity, it is hardly surprising that the political leadership supports a self-help programme aimed at making good the deficiency. It is, however, of the utmost importance that a rational system of control should have the unwavering support of the Government and of the Members of Parliament.

616. The control of community enterprise in secondary school building therefore requires that the following steps should be taken:—

- (1) A new concept of educational planning is required which takes account of the contribution of unaided schools. This is described in paragraphs 617-625 below.
- (2) The mechanism of control of new openings should be reformed and then vigorously applied (*see* paragraphs 631-634 below).
- (3) Control should be exercised in a helpful and constructive spirit, based on the assumption that community enterprise has a legitimate role in education.
- (4) The support of all political leaders should be secured for the Government's policy.

A New Concept of Planning

617. Hitherto, as indicated in paragraph 614, educational planning has been based on the public school system and the visible financial resources for its development. In recent years, this prudential policy has been expressed in three-year development plans coincident with the triennial grants from the Colonial Development and Welfare Fund. Where local enterprise was able to anticipate the plan by opening a school without aid a year or two ahead of schedule, this was commonly permitted, but no recognition was given in any plan to the opening of unaided schools as a distinct part of the national provision of educational services.

618. This attitude was understandable so long as unaided provision in secondary education remained a relatively small and unimportant factor; but it is no longer tenable, now that unaided schools in some numbers are springing up, which profess to do the work of the public schools and themselves seek recognition as public schools as soon as possible.

619. We suggest, therefore, that educational planning in future should take as its starting point, not a particular period of public school development or Government capital programme, but a given level of provision. This could be expressed as a proportion of the relevant age groups in the population to be accommodated in a secondary school, or to enter a secondary school; but, owing to its political importance, it is suggested that the relevant standard should be the percentage relationship between Form I intake and the primary school output of the previous year; in short, the index of opportunity. Let us suppose, then, that the first development plan in each Province is to be based on a survey of requirements in each centre of population which yields an index of opportunity of 15*.

620. In each province, the list of proposed schools in the plan should be graded, respectively, in order of priority, according to the existing level of opportunity in each area. Both the list and the priorities should take account of general Government policy in respect of the size of a secondary school by giving due weight to the enlargement of existing schools and they should also make appropriate provision in respect of boarding schools, secondary technical schools and other similar establishments with a more than local area of intake.

621. It is essential that the provincial development plan should attract the maximum of political support in the area. For this purpose, it is suggested that a Provincial Development Board should be set up to advise the Minister for Economic Planning and Development. The membership of such a Board should, we suggest, be drawn from the constituency Members of Parliament for the Province, together with a group of educational experts from the area, who would have a right to attend any meetings of the Board at which the educational development plan was being discussed. Similarly, appropriate experts in health, housing, roads, etc., would be entitled to be present when development plans relating to the subjects of which they had a specialist knowledge were on the agenda. The chairman of the Provincial Development Board should, in our view, in each case be the Provincial Commissioner, and its secretary the Provincial Planning Officer assisted, when the educational development plan is before the Board, by the Provincial Education Officer.

* *Note.*—This figure is chosen at random by way of illustration and is not intended to constitute a specific proposal.

622. The function of the Provincial Development Board in relation to education would be to consider development plans put forward by the Provincial Education Officer, who would draw them up as indicated in paragraphs 619 and 620 (above). The essence of these plans would be that they would be devised scientifically on educational, demographic and topographic grounds; it would then be for the members of the Board to argue the case for any modification on account of political considerations. This is, we believe, the right sequence. The duty of the Provincial Education Officer to make proposals on an expert, professional basis must be recognized and safeguarded, and such proposals must be the starting point. The present tendency, of which we have noticed certain recent examples, to give precedence to a purely political argument, in the face of professional advice, is a loss to the country's resources that Kenya can ill afford.

623. It would be for the Minister for Economic Planning and Development to co-ordinate provincial plans as recommended to him by the various Provincial Development Boards and to weld them together into a single national plan, for which he would seek the approval and support of Parliament. Before doing so, he would consult the Minister for Education, who would undertake on his behalf the national co-ordination of the educational development plan. Planning machinery of this kind would have the advantage of a built-in means of securing the necessary political support at two levels—provincial and national. This, as already indicated in paragraph 615, is a matter of great importance. The political leadership must have a hand in the plan and must be committed to it. Only thus can the Government exercise with consistency and determination the powers of control over unauthorized openings that are vested in it.

624. The graded provincial development plan, after any modification that may accompany its incorporation into an approved national plan, will provide the basis for the Government's development plan in the Province, projects being selected in the order of priority given in the plan. Approval for the opening of *Harambee* schools, however need not follow the approved order of priority, but no proposals for *Harambee* schools should be sanctioned in any circumstances unless they coincide with a school proposed in the plan. This will ensure that such a school is needed and can properly be grant-aided in due course, while leaving scope for the incidence of community initiative. It will, however, be necessary to limit the *number* of *Harambee* school openings in accordance with the national supply of teachers. This can conveniently be achieved by the allocation to each Province by the Ministry of Education of an annual quota representing the maximum number of such openings that can be permitted, calculated on the basis of national estimates of teacher supply. A device of this kind can also be used to safeguard against further encroachments on the resources of the primary schools. The question of teacher supply is further considered in paragraph 629 (below).

625. Where the resources of the Government are insufficient to sustain a rate of growth enough to ensure a stationery or gently rising index of

opportunity, it would be appropriate that the facts should be made known to the Provincial Board. That will enable the political leaders of the area to face squarely the problems created by the shortage of funds and to administer such stimulus to community activity as may be necessary to compensate for the shortfall.

626. We have already said that, subject to the requirements of development planning, recognition should be paid to the legitimate place of self-help in education. In Part I of our Report, we have discouraged the selection for self-help purposes of projects which are beyond the resources or capacity of local communities. This means, in general, that secondary school projects are to be avoided unless the conditions are favourable. There are, however, a few communities which, either because of a sound agricultural base, or on account of good organization, are able to give promise of sustaining a *Harambee* school for some years out of their own resources. In cases of this kind, where the Ministry is able to be convinced about the serious educational purpose of those concerned, it would seem appropriate that help should be given. The question is, what kind of help is possible?

627. In Part I of our Report, paragraph 303, we have already suggested that in deserving cases, where adequate standards are maintained, the Ministry might establish a category of unaided schools recognized as "efficient". To characterize a school as "efficient" under the Ministry's rules for the purpose would already afford a certain encouragement, but the significance of such recognition would be accompanied by practical benefits, if at the same time the teachers in a school so recognized were allowed to be regarded as members of the Teachers Service and to qualify for a Government free pension. A device of this kind would not constitute any immediate charge on the revenue, nor would it appear to the school as an instalment of grant-aid and therefore the thin end of a wedge, to be driven home as soon as circumstances and political pressures might make possible. Nevertheless, it would bring considerable financial benefits to the school, since in the absence of such recognition, the proprietor of the school can only maintain the teachers in good standing for a Government free pension by paying to the Government 25 per cent of their salaries. We can say, with little fear for contradiction, that a *Harambee* school must pay this levy, if it is to recruit or retain teachers of suitable qualification. To remit this charge, in the case of schools recognized as efficient, would not only relieve them of a substantial recurrent burden, but also improve their chances of engaging adequate staff. We, therefore, strongly recommend the adoption of this device as a means of encouraging and helping *Harambee* schools that have already shown their determination and ability to help themselves and of raising standards of education in these schools.

628. We have given careful thought to the possibility that a limited grant, short of full maintenance, might be paid to these schools out of public funds. We are, however, persuaded that, in the present shortage of revenue for all the purposes of Government, any new charge of this order would be wholly unjustified and that any savings ought to be devoted to the improvement or

extension of the maintained system. Similarly, we feel that capital grants to unaided schools would generally speaking be unjustified in the absence of the controls provided by a recurrent grant.

629. One kind of possible help already touched upon relates to teacher supply. If, by such a device as recognition as efficient, it is possible to give real security of tenure to well-qualified teachers at certain *Harambee* schools, then it is reasonable that, so far as possible, the national teacher supply should be geared to include the needs of such schools. As the control mechanism becomes more effective, it is to be hoped that most schools that are allowed to go forward on a self-help basis will stand a reasonable chance of acquiring the status of "efficient" and in these circumstances it seems not unreasonable to base teacher supply calculations on the assumption that most of these schools will have to be staffed from local sources.

630. Finally, it is reasonable and desirable that professional advice should be given to the maximum extent possible by the Ministry's officers, including the Inspectorate, and by the Community Development officers. The participation of Community Development officers is particularly important and presupposes a continuing and close working link between the Ministry of Labour and Social Services and the Ministry of Education.

Control of Schools

631. Reference has been made elsewhere in this paper to the need to revise the Ministry's procedures for the control of schools. The present system derives from a period when development planning took little account of the unaided school and was much less sophisticated and exacting than must now be the case. There are at present two stages in control, the approval of the manager under section 16 of the Education Act and the registration of the school under section 56. The first is intended to secure that only responsible persons, groups of persons or corporations enter the field of education as entrepreneurs. Once a manager has been approved, no other control point occurs until he has built the school, recruited the staff and is ready to open. At this point, he must apply for the registration of the school. With the breakdown in the registration procedure, application for registration has often been postponed until the school has been open for some time; and, in the case of *Harambee* schools, there are numerous cases in which no application has ever been made.

632. The basic defect in the present procedure, as a mechanism for the control of *Harambee* schools, lies in the fact that, when a manager has been approved, he must at his own risk incur all the expense of building, staffing and equipping a school before he can run the gauntlet of the registration procedure. In the case of a secondary school, this may lead to much abortive effort and expenditure, if for any reason registration must be withheld on planning grounds, either because the school is wrongly sited, or because not enough teachers are available. Where community effort is involved, avoidable risks of this kind must be obviated at almost any cost.

633. We suggest, therefore, that there should be three control points instead of two. The extra control should be at the site approval stage and should occur as soon as possible after the original project has been mooted, but before steps have been taken to rally support for the project in the community, or to raise funds. The site approval stage should be used, not only to regulate the siting of the proposed school, but also to secure that the school is in the provincial or national plan and that in principle teachers are available to staff it. Thus, by the mechanism of site approval, it is possible to forestall the efforts of the community to raise the money and support for the new project, if it is found to be incompatible with national planning. We believe that the intervention of this new control point will do much to enable educational planning successfully to embrace the private sector of educational activity.

634. Registration should be limited to Forms I and II in the first instance. We have discussed such a limitation in paragraphs 234 and 235 of Part I and our subsequent inquiries have lent emphasis to our original advice. We do not think that the Government ought to allow a school to go beyond Form II unless and until those responsible can provide, equip and maintain laboratories and recruit staff of adequate qualification, including graduates. We have suggested a minimum staffing requirement—itsself well below the minimum normally required in maintained schools—in Appendix 11. Any lower standard would, in our view, deprive the school of any serious claim to provide a secondary education and cause widespread discontent and resentment on account of educational failure in due course. For the Government to permit such a development would not, in our view, constitute a responsible management of the country's education and would invite waste and frustration.

Management of "Harambee" Schools

635. What kind of body can the Government recognize as a responsible agent for the establishment of a *Harambee* school? This is a serious matter, since it may not be easy to recruit such a body with the requisite experience, business acumen and staying power in many locations. It is a clear responsibility of Government to see that a school is in the hands of a group of persons who are capable of assuming and maintaining such a responsibility.

636. We found that, in the Central Province in 1964, it was the practice of the Regional Assembly to refer the promoters of *Harambee* schools either to the Roman Catholic Diocese or to the Christian Churches Educational Association. If the promoters were successful in persuading one or other of these existing managers of schools to become the manager of the new school, then they were allowed by the Regional Assembly to go ahead. This procedure has, in our opinion, the disadvantage of securing that all *Harambee* schools are under denominational management, an issue that does not, in our view, correspond with the present needs and inclinations of the people of Kenya.

637. We suggest that, as an alternative procedure, there should be set up in each province one or more statutory boards approved by the Minister as managers of schools under section 16 of the Education Act. These boards should be incorporated and able to hold property and their membership should include, but not exclusively consist of, constituency Members of Parliament from the area. They would serve as group managers for *Harambee* schools, until such time as a separate board might be established in due course for a particular school.

CHAPTER XII

Developments in Adult Education

638. A bill was introduced into Parliament in July 1965, for the establishment of a Board of Adult Education, whose functions will be to stimulate and co-ordinate activities in this ramified field. We do not wish to prejudice the decisions of this board and we have already made a number of proposals in Chapter V on developments that appear to us important. In this chapter, we wish only to amplify what we have already written about part-time classes, correspondence courses, education by radio and day release, and to give to these activities a renewed emphasis.

639. In paragraph 539, we referred to the further education during their years of maturity of persons equipped with the basic knowledge and skills imparted by the primary school. We wish to take the opportunity of this chapter to emphasize again the need for a new attitude towards the education of adults. It must be taken in hand as a matter of national concern and can no longer be left on the periphery of educational activities, or allowed to drift without pressure or direction from the Government. We hope that the Board of Adult Education will help to give a sense of purpose and cohesion to this work; but a strong impulse from official quarters is needed too.

Part-time Classes

640. We have little doubt about the existence of a demand for part-time classes, particularly in the urban areas. One obvious and growing demand lies in the secretarial field and one consequence of the present lack of regular provision is the proliferation of private commercial colleges, often with standards so low as to render their services almost worthless. Indeed, the low attainment of persons issuing from these institutions is an incessant drag on efficiency in public and commercial offices. Another type of demand has already been mentioned in paragraph 352. Courses in Swahili and English are also required at various levels and for a variety of purposes. This does not exhaust the list, but illustrates its variety.

641. In Nairobi, Mombasa and Nakuru, some of this demand is being met by the Evening Continuation Classes Committees of those towns. These committees work on a decentralized basis, using school premises in the locations where demand is most likely to arise. This, in our opinion, is the right procedure for such work, as many of those attending are at the outset of their working careers and have little spare money that could be used for travelling long distances to a central Evening Institute. Hitherto, the committees have maintained a largely autonomous existence, living on grants from the Government, the municipal council, private firms and students' fees, but we think that the time has been reached when a closer affiliation with the Government should be considered. In the towns, a municipal responsibility derived from the Government under section 5A of the Education Act may be the best arrangement, as municipal councils have a regular concern for

industrial development within their boundaries and therefore a strong motive to secure proper training facilities. In the rural areas, the Provincial Education Officer should be responsible and should be assisted by an officer expressly charged with the organization of such classes. This officer should, of course, work closely with the Provincial Adult Education Committee set up by the Board of Adult Education.

642. As we have indicated, the provision of part-time classes is essentially a local affair, since it is closely related to local demands for various skills. Consequently, development plans for this purpose should be worked out at municipal or provincial level and approved at headquarters for inclusion in the Ministry's recurrent estimates. Since we see the necessity for an aggressive initiative on the part of those responsible for identifying needs and organizing classes, we anticipate a need for a growing provision over the years. *It is essential that the financial provision for this work should not come to be regarded as fair game for economies in times of stringency in the national budget.*

643. As the number of part-time classes increases, it will be necessary to fix the immediate responsibility for such activities. Since for some time to come a decentralized system is preferable, we recommend that the principal or head of the host institution should accept full accountability for all evening class and other part-time work conducted on the premises of his institution. It will be necessary to make budgetary provision for the payment of tutors' fees and expenses, educational equipment and the use of premises and we suggest that to regulate these and other matters the Minister should make rules under section 82 of the Education Act.

Correspondence Courses

644. We have already written at some length, in paragraphs 376 to 381, on Correspondence Courses and we do not wish here to repeat what has already been set forth there. In paragraph 378, we gave expression to the hope that appropriate developments in this field could be handled adequately by the existing colleges without direct Ministry participation in this kind of activity and we wish only to add here that, in view of the numerous other burdens on the Ministry at the present time, direct participation should not be considered unless and until the provision made by the private colleges, stimulated by a system of recognition as "efficient" and extended in response to revealed demand, nevertheless proves inadequate to the needs of the country.

645. Correspondence courses can only be used for the purpose of instruction in subjects requiring no apparatus or equipment for practical work. This is a serious drawback in the study of any scientific or technical subject. On the other hand, correspondence courses have the merit of penetration even to the remotest homes in Kenya. The disadvantage that they are limited to theoretical studies can be largely overcome by the provision of

residential courses during the school holidays in secondary schools, a device that is adopted in Australia with very satisfactory results. Such a procedure would involve close co-operation between the Correspondence Colleges and the Ministry of Education and some small financial assistance out of public funds may be required for the residential period. We strongly advocate a procedure of this kind, because it would in our view be of signal benefit if those taking correspondence courses could readily include practical and scientific studies in their curriculum; of benefit, that is, not only to those concerned, but also to the country in general.

646. We have already recommended that consideration should be given to correspondence courses supported by radio broadcasts. However, when responsibility is dispersed between two or more authorities—in this case the Ministry of Education, the Correspondence Colleges and the Voice of Kenya—the problem of co-ordination and initiative always arises. It is suggested that responsibility should vest without doubt in the Ministry of Education, which includes the Provincial Education Officers and their specialist officers responsible for adult education. Where radio broadcasts are involved, it will be necessary for the Ministry's officer concerned with school broadcasting to extend the scope of his activities to include adult education courses linked, in suitable cases, with education by correspondence. This lodgment of organizing responsibility in the Ministry of Education introduces an unfamiliar aspect of public administration. Hitherto, where voluntary or private bodies were concerned, it was more usual for the Government to determine an appropriate rate of grant and then to leave the private agency to get on with it. This attitude towards such agencies has its merit, for it leaves them the widest possible scope for initiative. However, where joint activities are involved, the initiative cannot simply be left on the side of the private agency; and this means that the Ministry must assume an aggressive, organizing role, which involves a continuous exploration of demand in industry and elsewhere and the exercise of judgment concerning the best form of provision to meet a given ascertained need. It will be for the private agency to respond, to the best of its ability, to the public initiative.

647. Before we leave the subject of Ministerial responsibility, we would like to refer to a danger to which activities of the kind we are here considering may be exposed by the mere accident of administration. In the opening paragraphs of Chapter V, we referred to the close connexion between technical and commercial education on the one hand and adult education on the other hand. In Kenya, these have been treated as separate branches, not only during the period when adult education was removed to the portfolio of the Minister for Social Services, but even now, when it has been restored to the Minister for Education. This separation of responsibility between officers or departments responsible respectively for technical and adult education may have something to be said for it as a division of labour: it has nothing in its favour from the standpoint of sound educational administration. The solution envisaged in Chapter V lay in the appointment of an Assistant Chief Education Officer, in whose person and office these two types of education for adults would be united. We wish to emphasize once

again the importance of this recommendation, not only as a means of bringing unity into all post-school education, but also to endow it with a standing commensurate with its very great importance to the economy of Kenya. Unless such an appointment is made, we fear greatly that, notwithstanding the imminent establishment of a Board of Adult Education, proper initiatives will not be taken in respect to an activity such as correspondence courses, where technical education and adult education are both involved.

Education by Radio

648. Whereas the professional aspect of school broadcasting is a recognized responsibility of the Ministry of Education, adult education remains at present a matter exclusively for the Voice of Kenya. We propose that all educational broadcasts of whatever stamp should fall within the professional responsibility of the Ministry of Education. This we regard as being of especial importance in the light of our proposals, here and in Chapter V, for education by the joint use of media. In making this proposal, we refer to radio productions of a specifically educational character. Information broadcasts, such as *Tujenge Taifa*, notwithstanding an educational ingredient, should of course remain within the portfolio of the Minister responsible for that subject, in such conjunction as may be necessary with the Department of Community Development.

649. The transfer of professional responsibility for broadcasts in the technical and adult fields to the Ministry of Education raises the question whether the Advisory Council on School Broadcasting should be enlarged to include such work within its scope, or whether a separate body should be formed. We incline to the view that, for the present, no new provision should be made. Some advice on the use and possibilities of broadcast techniques will no doubt emanate from time to time from the Advisory Council on Technical Education and Vocational Training. The subject will also legitimately be considered in the Board of Adult Education. It should first be ascertained whether this advisory machinery is adequate, before any new advisory body is brought into this field.

650. The financing of programmes for the education of adults should be secured out of the education vote. Initially, a modest sum will be needed to finance some pilot programmes in a relatively unknown field, but an increasing sum year by year should be assured in order to provide for the proper growth of this service.

Day Release Courses

651. In this chapter, we have been dealing with educational provision of various types, which are of importance from the standpoint of economic growth. We wish, in conclusion, to comment upon the provision of educational courses for apprentices and others who are engaged in obtaining their initial knowledge and skill for industrial, commercial, or professional employment. Unfortunately, it appears to us that there is at the present time

too little concern on the part of many industrial and commercial concerns to co-operate in the education of young people entering their employment. The assumption that such education can all be obtained in the evenings, during the spare time of those concerned, is a romantic ideal, but corresponds to reality neither here nor in other countries. The heavy burden of evening classes and homework is more than many young people are willing or able to endure for long, with the result that studies are discontinued and classes suffer notoriously severe "wastage". The solution, or a partial solution, lies in an extension of the day-release system, alone or in combination with some evening studies.

652. Some indication of the apparent lack of interest in assisting young people to obtain the education they need is given by an inquiry made in 1964 by the Kenya Polytechnic in the vital field of commercial skills. A questionnaire was distributed on behalf of the Polytechnic to the 427 members of the Nairobi Chamber of Commerce and to certain other firms not in membership. Only 55 firms troubled to reply and of those that did so 24 replied in the negative. We feel that this shows on the part of the majority of firms a deplorable neglect of responsibility towards their young employees. We believe that an energetic campaign should be launched by the Ministry among industrial and commercial firms of all kinds to secure a greater degree of co-operation on the part of such firms and a due sharing of responsibility for educational programmes. If such co-operation cannot be obtained by persuasion, it will be necessary to pass legislation imposing a levy on all firms that do not make proper provision for the continued education of their young employees.

CHAPTER XIII

A Manpower Approach to Educational Planning

653. In May 1965, a survey of high-level manpower requirements in Kenya during the period from 1964 to 1970 was completed under the direction of Mr. Calvin Davis, a consultant made available to the Government of Kenya by the Ford Foundation. Since educational planning involves predictions of occupational demand several years ahead, Mr. Davis undertook for the commission the further task of projecting his estimates of new posts to 1980 on the basis of forecasts of growth in the different sectors of the Kenya economy provided by the Ministry of Economic Planning and Development (*see* Table XXIV). As the Government's educational plan is based on developments in the six-year period from 1965 to 1970 inclusive, our own estimates derived from the manpower figures relate to cumulative totals of educational requirements in the same period.

654. Before we set out the results of our calculations, it is necessary to say a word or two about the reliability of an approach to educational planning by way of manpower forecasts. This manpower survey was the first of its kind undertaken in Kenya. Mr. Davis himself describes some of the limitations to which this pioneering attempt was subjected. Unlike employers in some other countries, those in Kenya are little accustomed to the periodical compilation of statistical returns and still less to the detailed forecasting of requirements beyond the limits necessary for their own immediate economic purposes. An attempt to secure data from small employers evoked only a limited reaction and the returns made were often incomplete or inaccurate. Since there are many small businesses in the Kenya economy, this defect was not without significance. A more important but unavoidable deficiency was the omission of agriculture from the survey, for reasons given by Mr. Davis in his report. Some attempt was made to fill this breach by means of a limited survey of the larger agricultural employers. However, this procedure omits reference to the settlement areas, as well as to the use of modern productive techniques in the traditional parts of the agrarian economy. It is most important that the educational needs of these elements in the economic life of Kenya should be met and we hope that an attempt will be made by the Government to assess the requirements of the peasant farming areas in the course of follow-up inquiries that are to be made from time to time.

655. Apart from the difficulties to an employer of an unaccustomed exercise and the problem of forecasting demand for industrial and agricultural products in an interdependent world, there is necessarily uncertainty about new industrial developments and techniques. These could readily alter the balance of demand between the professional and technician groups in a particular employment category, or introduce demands for new skills. Clearly, no manpower survey can be expected to uncover such demands. However, if there is in general a sufficient flow of pupils at the secondary school stage, and in the university, specialized training can usually be superimposed upon a general educational base.

656. Immediately before and since independence, a large number of posts have been filled as a matter of policy by local candidates, many of whom did not possess the full requisite qualifications. As more highly qualified candidates become more plentiful, an effort will be made to upgrade the minimum acceptable qualification, that is, to increase the educational investment in a particular form of employment. The manpower report took account of this process only in the case of primary school teachers; in other callings, the available information was insufficient to suggest the extent of additional recruitment that the upgrading of posts might entail. Consequently, the demand suggested in the report was probably somewhat lower in many occupations than in fact it may well become during the period under consideration.

657. Like Mr. Davis, we have encountered a major difficulty in estimating the future wastage of persons in post. The manpower report takes account of an attrition rate of 3 per cent for Africans and a higher rate for Europeans and Asians on account of the policy of "Africanization". It is extremely difficult to estimate the future impact of this policy. On 12th December 1965, the option to assume Kenya citizenship now open to certain persons of United Kingdom nationality will expire and it seems reasonable to assume that employment prospects will subsequently depend on citizenship rather than race. At the same time the employment of non-citizens will be discontinued as soon as qualified local persons become available.

658. Mr. Davis points out that the extent of "Africanization" has been very uneven, being highest in his category D (skilled workers with no more than a primary school education) and lowest in category A (graduates). We take it for granted that the Government will attach the highest importance to pressing forward with all reasonable speed with Africanization in the graduate class and we have therefore used a higher average attrition rate for graduates than in the other categories. In the following table, we show the actual rates used by us in the period 1971-1980 in comparison with the mean rate for each category in the period 1964-1970 as shown in the manpower report. It must be remembered that the latter figure is compounded of the differing rates of wastage applied by Mr. Davis to Africans, Asians and Europeans respectively and to the public and private sectors respectively.

Table XIII
Average Wastage Rates During Employment in Different Categories

<i>Category</i>	<i>Average Rates of Wastage</i>	
	1964-70	1971-80
	%	%
A	5	4.8
B	4	3.5
C	4.3	3.8

659. Mr. Davis assumes the wastage rate for Africans to be 3 per cent, but in the Tanganyika manpower survey* a figure of 4 per cent is taken. Neither of these figures is scientifically based, though the Tanganyika figure is inferred from estimates of life expectancy at birth and crude death rates among the African population. These estimates relate, of course, to the entire African population and they give little clue to the attrition rate among African graduates in Kenya, whose life expectancy must be considerably greater than that of the mass of the population. Another factor influencing the wastage of African graduates is their present age distribution. Since many of them are comparatively young, the number of age retirements in the next 15 years will be lower than will ultimately be the case in a working population normally distributed by age group. For these reasons, we fully support Mr. Davis' preference for a 3 per cent rate and we think that even this figure may well be high in the graduate category, a supposition which we have kept in mind in suggesting an average attrition rate for all races of 4.8 per cent over the 10 year period in the graduate category.

660. The rate at which citizens will replace persons of foreign nationality will depend not only on the incidence of policy, but also on the availability of qualified local persons. If the latter become more plentiful, the replacement of foreign with local incumbents is likely to be stepped up. The teaching profession in secondary schools and training colleges is an obvious area of activity in which advantage may well be taken of greater numbers of qualified Kenya citizens to run down the overseas aid schemes for teachers of the United Kingdom, the United States of America and other countries. Our own estimates of attrition, to which reference was made in paragraph 658 and Table XIII, must therefore be regarded as speculative and provisional.

661. Owing to uncertainties about the future employment pattern, we have not attempted to go into detail in our calculations of educational requirements. University degree structures never correspond precisely—except in the case of professional courses in medicine, veterinary science, agriculture and so forth—to occupational categories and consequently it has seemed right for us to confine ourselves in general to the two broad streams in the educational system, arts and science. Our method has been to work downwards from the top, by taking first the occupational demand figures according to the survey at whatever point in time corresponds to an educational intake in 1970. Thus, when we were calculating the number of Form I places that would be needed, we had perforce to consider the vocational demand for graduates nine years later. By the same token, the Form I intake in 1970 necessary to support an adequate flow of S.I. teachers had to be related to the demand in 1977. This adjustment of demand to the educational period was necessarily approximate, since the period is itself subject to some variation. The approximation is, however, sufficiently close to the facts for our practical purposes.

* *High-level Manpower Requirements and Resources in Tanganyika, 1962-1967* (1963).

662. The demand forecasts for 1970 and 1980 were based on the estimated annual rate of growth of the monetary gross domestic product by major sectors of the economy, those for 1970 being derived from the estimates in the Development Plan. The estimated rates of sectoral growth for 1971-80 are necessarily provisional and do not appear in the report itself, but were specially prepared for the use of the Commission. They are set out in detail in Table XXIV.

663. It is difficult to offer any constructive comment on the results of the survey in detail. It has, however, appeared to us probable that the demand for graduates was slightly exaggerated, for two reasons. First, in a number of cases the equivalent professional qualification can be obtained—and often is obtained—by a route which bypasses the university. Legal, accountancy, company secretarial and other professional qualifications can be obtained as a result of part-time studies during employment under articles, or their equivalent, while associate membership of the professional engineering bodies (including in due course the East African Institution of Engineers), obtained during approved employment in industry, is recognized as having a similar professional value to a university degree. Secondly, in some categories it is not unlikely that something less than a university degree will continue to be accepted for some time to come, as at present, as an adequate qualification for employment. For instance, a secondary school may have 40% of non-graduates on its staff for the time being, though in due course only graduates are likely to be acceptable except in certain practical subjects. It should be noted that both of these groups bypass the university, that some parts of them bypass the sixth form, but that all who choose these forms of training can be assumed to have passed through the main school of a secondary school; and that account must be taken of these varying routes to a qualification in applying the manpower figures to educational purposes. We have no information to enable us to estimate the numbers of professional engineers, accountants, and so forth, that are likely to proceed by the non-graduate route, so that our adjustments have been little more than guesses. We have assumed that 10% of the civil, electrical, mechanical and telecommunications engineers will be qualified by way of a professional associateship and that as many as 40% of accountants and similar categories will proceed by way of articles. In the same way, we see a substantial proportion of personnel specialists in industry and of journalists and related writers entering employment without going through the university. The report assumes that 25% of directors, managers and working proprietors will be graduates: we have taken it that 12½% will possess a university qualification.

Form I Entry

664. Our calculations based on the manpower figures show that the *Form I intake over the six-year period from 1965 to 1970 should be of the order of 66,000.*

665. According to the Development Plan of the Ministry of Education, the number of pupils entering Form I in maintained and assisted schools (including secondary trade schools) from 1965 to 1970 inclusive will be

about 87,500. This gives the appearance of an over-provision, which we have considered with the greatest possible care; nothing would be more foolish than to divert to such a purpose scarce resources that might be capable of more productive economic uses. However, we are satisfied that during the development plan period this margin is justified, for the following reasons:

- (a) The manpower survey only takes account of agricultural and veterinary officers to the extent that they are recruited for Government or local government service from Egerton College, Siriba College and the Embu Agricultural Training Centre. It does not include trained supervisory, farming or marketing personnel in the settlement areas or in the areas of the traditional economy. It is impossible to estimate the extent of this demand in the coming decade, but it must be considerable. It is understood that the Stamp Commission Report, when it becomes available, will call for a marked increase in advisory services in the areas of land settlement.
- (b) Reference has already been made in paragraph 656 to the upgrading of job qualifications. This will involve some replacement of existing personnel and may lead for a time to more liberal staffing, until the earlier incumbents can be absorbed in the natural process of labour turnover or increase.
- (c) During the period of Africanization, there will be a general tendency towards a more generous staffing, or alternatively a greater subdivision of functions, than will later appear necessary. The forecasts in the manpower report make no special provision for this manifest tendency.
- (d) If, after taking account of the additional demand created by these influences, there remains any margin of supply over apparent demand, it will at once be absorbed by an accelerated Africanization of posts.
- (e) The manpower survey makes no allowance for the higher wastage rate of women.

666. While, therefore, we feel confident that the apparent surplus will in practice be absorbed, we wish to give a warning about the need to watch very carefully the relationship of supply to demand in the subsequent development period. It is an error to suppose that humanitarian considerations dictate the maximum possible rate of development in the secondary sector. In fact, experience in other countries has already shown up the dangers of an unemployed or underemployed surplus of qualified people. It should, therefore, be a primary object of planning to secure a rate of educational development which is in line with the rate of economic development, and an actual educational flow which is always slightly in excess of demand. We consider that the Government's Educational Development Plan ensures this in the period 1965-70: it is important that this principle of planning should be carefully respected in the subsequent decades.

667. One feature of educational development gives us some cause for concern. The output of the *Harambee* and other private schools has not been included in the figure of supply in paragraph 655. It is difficult to be sure what this output will be, or at what level, as many students will leave after Form II. *It is, in our view, of the utmost importance that no new Harambee schools should be opened from now on unless they are recognized to form part of the educational development plan.* We consider this matter in detail in Chapter XII. In the meantime, we recommend that the Government should give every possible consideration to the absorption of existing *Harambee* schools in the list of schools to be opened within the plan. *The evidence produced by the manpower report emphasizes the urgent importance of control over all new openings of secondary schools of whatever character within the limits set by the educational plan.*

Form V Entry

668. *We calculate that the cumulative Form V entry in the six-year period from 1965 to 1970 should be in the region of 13,000.*

669. The Form V entry in the same period for which provision is made in the Development Plan is about 9,000 over the same period. This enrolment, however, corresponds to an average class enrolment over the period of 18.7, rising from 16.8 in 1965 to 20.1 in 1970. A decision has already been taken to increase the enrolment in Forms V and VI to 25 and we recommend that all classes should from now on be filled to that limit. This will produce a cumulative enrolment over the period of about 11,000. Some of the remaining intake requirements will be fulfilled by continuing the present practice of sending students to certain North American and European universities at School Certificate level. The equivalent of approximately 1,000 (cumulative) Form V places can be provided in this way. The remaining shortfall of 1,000 places should be made good by means of an increase in the provision of Forms V and VI in Intermediate Colleges, as suggested in Table XIV. *It is of the greatest importance to the country that output should be adequate at this level.*

Table XIV

Growth in Numbers of Forms V in the Ministry's Development Plan and as Proposed in this Chapter

<i>No. of Forms V</i>	1964	1965	1966	1967	1968	1969	1970
Development Plan	51	59	67	75	83	91	99
As here proposed	51	59	70	81	92	103	114

Teachers—Primary Schools

670. In Chapter IX, we estimated that 1,257,000 children would be enrolled by 1970. This corresponds to some 4,490 streams and in accordance with the staffing plan adumbrated in paragraph 546, the number of teachers required are shown in the following table.

Table XV

**Teachers Required to Staff the Primary Schools in 1970
on the Pattern Set out in Paragraph 575**

<i>Grade</i>			<i>Number Required</i>
P1	..	..	3,360
P2	..	..	4,490
P3	..	..	17,960
UT	..	..	8,980
TOTAL			34,790

671. In order to calculate the numbers that must be trained during the six-year period, we have assumed a wastage rate of 4% in the case of P.1. teachers, since their higher school qualification entitles them to consideration for a wider range of alternative jobs. In the case of the P2 and P3 categories, we have taken a wastage rate of 3%. The resulting requirements are set out in the following table.

Table XVI

Teachers Required to be Trained in Six Year Period 1965-70

<i>Grade</i>	<i>In Service in 1964</i>	<i>New Teachers 1965-70</i>	<i>Wastage 1965-70</i>	<i>In Service 1970</i>
P1	1,907	2,160	717	3,350
P2	2,543	2,640	695	4,488
P3	11,759	9,180	2,943	17,996

672. This output is almost the same as has been envisaged in the Development Plan (13,900). It is, however, for consideration how far the more senior grades are to be recruited from fresh recruits and how far by upgrading. In paragraph 389, we drew attention to the importance of adequate opportunities for promotion as a factor in teacher morale. This means that more attention than hitherto must be given to underwriting the efforts of junior grade teachers to improve their standing by affording opportunities for attendance at short courses to supplement their own studies. The corollary of this is an enlarged provision of P3 training to make up for the upgraded teachers. In Table XVII, we have suggested a training programme on this basis by way of illustration, but variants of this programme could be considered.

Table XVII

Suggested Training Programme Involving Upgrading

(All Figures are Cumulative 1965-70)

<i>Grade</i>	<i>New Teachers Required</i>	<i>Initial Training</i>	<i>Upgrading</i>
P1	2,160	1,560	600
P2	2,640	1,140	1,500
P3	9,180	11,280	—

673. It does not necessarily follow that all of the tuition necessary need be provided at training colleges: indeed the short courses at training colleges might well be confined to questions of teaching method and particularly to the further study of child psychology. Part-time courses to assist upgrading teachers with school certificate subjects could well be provided at secondary schools as suggested in paragraphs 353 and 354. In addition, we hope that the correspondence colleges will continue to give all possible assistance to ambitious teachers who wish to prepare themselves for these examinations.*

Teachers—Secondary Schools

674. The supply of teachers for secondary schools is crucial for the whole development programme. Unless sufficient teachers of adequate qualification can be recruited, the programme will be frustrated. Either there will be schools without teachers, or schools generally will be understaffed.

* A provisional calculation of the demand for tutors in training colleges for teachers in primary and secondary schools suggests that it will be necessary to recruit annually from 1966 to 1970 some ten tutors from the U.K., five from the U.S.A. and ten from other countries, notably Canada and Australia. A substantial proportion of those from the U.K. could be non-graduate teachers who have completed a three-year course of training, or a two-year course followed by a one-year supplementary course. The progressive upgrading or elimination of teachers below P.1 status should be provided for and P.1 teachers on the staff of training colleges should in future be expected to secure S.1 status within five years of appointment to a college.

We have, therefore, gone into the teacher supply question with considerable care. The development of *Harambee* schools has a bearing on this matter and the results of our enquiries show beyond a peradventure the importance of our advice about holding the majority of such schools to Form II for the time being by the use of section 56 of the Education Act: indeed, they show the folly of not doing so. In making our teacher forecasts, we have taken into account the actual situation in 1965 and we believe that our projections have been cautious. There is necessarily some uncertainty about the supply of overseas teachers, but it is our belief that the proposed numbers will be forthcoming if an effort is made to see that this is so. We have found that it will not be possible to begin to run down the supply of overseas teachers until 1970, but that on and after this date a progressive and planned reduction will be possible. *Owing to the rapid increase in the number and size of secondary schools in the coming six years, any premature attempt to run down the overseas element might be disastrous.* Since, however, substantial numbers must continue to be recruited from Britain, America and other countries, we wish to remind our readers of the importance of what we have said in paragraphs 262 to 269 and in particular of the suggestion that an official of the Kenya Government should be associated with selection.

675. Table XVIII gives a comprehensive account of how we propose to supply the secondary schools with teachers in the next six years and Table XIX reconciles supply with anticipated demand. Tables XX, XXI, XXII and XXIII are subsidiary tables referring to overseas teachers included in the main table. In all our calculations, we have included the figures for the supply and demand for teachers in secondary trade schools. We consider the question of teachers for *Harambee* schools in paragraph 679. We have not considered private schools other than *Harambee* schools, as we have insufficient information about them and assume them to have access to private sources of teacher supply. The demand figures in Table XIX are based on the Government's educational development plan.

676. There is obvious wisdom, during the period of rapid development coincident with the Development Plan, in searching with vigour in a wide variety of sources for the supply of teachers. Although there is no further room for doubt that overseas sources will have to be used freely during this period of expansion, we have nevertheless been able to foresee a rapid run-down of these sources beginning in 1970 (see Tables XX, XXI, XXII and XXIII). It is of the utmost importance that we should not build up a system that remains forever, or for long, dependent on overseas teachers. Having thus settled on a particular flow during the development period, it is essential to acquaint the countries and agencies concerned with this need, so that they may plan ahead. In the meantime, the flow of Kenya graduates and non-graduates will be on the increase. The targets that we have set for that flow are not, in our opinion, impossible of attainment and we urge that every effort should be made, if possible, to increase it. By such means, it may be possible to limit the flow of overseas teachers sooner, or more steeply.

Table XVIII

The Supply of Teachers for Maintained and Assisted Secondary Schools
(including Secondary Trade Schools)

Category	1965	1966	1967	1968	1969	1970
Kenya Graduates	34	97	183	266	451	704
Kenya Non-Graduates	462	493	577	684	861	1,048
European (Non-Citizen):—						
Permanent/Pensionable	78*	72	66	61	56	51
Ministry of Overseas Development	186	281	345	362	336	266
Teachers for East Africa	108	40	22	5	—	—
Peace Corps	38	138	200	200	200	150
Temporary Local	11	88	109	127	144	116
Contract Local	57					
Asian§ (Citizen/Non-Citizen):—						
Perm./Pen. (Designated)	120					
Perm./Pen. (Non-Designated)	186	145†	141	137	133	129
Temporary	36	304‡	283	263	244	228
Contract	6					
Board of Governors	130					
Missionaries	240	240	240	240	240	220
Overseas Appointments Board	6	4	2	—	—	—
Other Countries (not U.K. or U.S.)	—	30	60	63	66	36
TOTAL	1,698	1,932	2,228	2,408	2,731	2,948

*Wastage 8% per annum.

†Citizens of Kenya, Wastage 3% per annum.

‡Non-citizens, wastage 7% per annum.

§Existing Asian teachers only: new Asian teachers would be included in the categories "Kenya graduates" and "Kenya non-graduates".

Table XIX

Supply and Demand for Teachers in Maintained and Assisted Secondary Schools, (including Secondary Trade Schools)

Year	1965	1966	1967	1968	1969	1970
Supply	1,698	1,932	2,228	2,408	2,731	2,948
Demand	1,669	1,988	2,232	2,508	2,724	2,937
Surplus or Shortfall	+29	-56	-4	-100	+7	+11

Table XX

Proposed Supply of Teachers from the Ministry of Overseas Development, United Kingdom
(including Ten Technical Teachers in 1966, 1967, 1968 and 1969)

<i>Year of Service</i>						1965	1966	1967	1968	1969	1970
1	..	..	..	..	..	130	140	140	140	140	70
2	..	..	..	..	..	55	130	140	140	140	140
3	..	..	..	..	..	—	11	54	28	28	28
4	..	..	..	..	..	—	—	11	54	28	28
TOTAL						185	281	345	362	336	266

Table XXI

Proposed Supply of Teachers from the Peace Corps, United States Government

<i>Year of Service</i>						1965	1966	1967	1968	1969	1970
1	..	..	..	..	..	38	100	100	100	100	50
2	..	..	..	..	..	—	38	100	100	100	100
TOTAL						38	138	200	200	200	150

Table XXII

Proposed Supply of Teachers from Countries other than the United Kingdom
and the United States

<i>Year of Service</i>			1966	1967	1968	1969	1970
1	..	..	30	30	30	30	—
2	..	..	—	30	30	30	30
3	..	..	—	—	3	3	3
4	..	..	—	—	—	3	3
TOTAL			30	60	63	66	36

Table XXIII

Proposed Supply of Teachers by Voluntary Agencies for Service on Local Terms (Temporary or Contract)

<i>Year of Service</i>	1966	1967	1968	1969	1970
1	25	25	25	25	—
2	—	25	25	25	25
3	—	—	20	20	20
4	—	—	—	20	20
TOTAL ..	25	50	70	90	65

677. One overseas ingredient is the missionary teacher. The distinguishing feature here is that the missionary society, or the church, undertakes to fill a particular teaching post and when one missionary is withdrawn another is supplied to replace him. We have therefore shown zero wastage until 1970, when we indicate a start with the run-down of this category also. During the crisis period of development, we gladly welcome the additional reinforcement given by these teachers. But we must not forget that they are expatriates and that in due course they, too, must give place to local recruits to the teaching profession.

678. Perhaps the greatest uncertainty in table XVIII resides in our assessment of the future prospects of the existing force of Asian teachers. Nobody knows at this date of writing (July 1965) how many will emigrate, how many are "automatic citizens" and how many will choose citizenship under the provisions of the Constitution. We have, therefore, been obliged to guess, and our guess has been that 150 out of the 478 Asian teachers in service in July 1965, are, or will elect to become, citizens of Kenya. These we have reduced 3 per cent per annum, while the remainder we have subjected to a wastage rate of 7 per cent per annum. New Asian and European teachers of Kenya citizenship are, of course, included among the Kenya graduates and Kenya non-graduates, though their number is likely to be small.

679. In paragraph 624, we spoke of the need to regulate the opening of new *Harambee* schools in accordance with the supply of teachers available for them. Our calculations hitherto in this chapter have not taken the needs of *Harambee* schools into account. As Table XIX shows, the maintained and assisted schools will need all the teachers whose recruitment is indicated in Table XVIII. Moreover, we do not feel that any of the categories in Table XVIII can be increased without risk of violence to the truth. *It is, therefore already clear that there will be no surplus of secondary teachers in the next six years that can be placed at the disposal of the Harambee schools. The limitation of Harambee schools for the time being to Forms I and II, as suggested in paragraph 235, by means of section 56 of the Education Act, is, therefore, an urgent necessity. Unless this is done, there is a*

risk that these schools will do direct damage to the maintained and assisted secondary schools, or further harm to the primary school system (see paragraph 606(2)) by taking teachers from them. Our estimates of teacher supply and demand indicate this beyond any reasonable doubt.

680. If it were to prove possible to recruit for training a slightly larger number of persons for the P.I. course than is indicated in Table XVII, the surplus could be made available for the time being for service in *Harambee* schools, thus taking the pressure off the maintained system. The assumption is that they would only teach in Forms I and II and that they would eventually revert to primary school teaching, when local government finances had become sufficiently buoyant to enable them to be employed in the primary sector.

681. Our investigations into the proportions of secondary education with the help of the manpower survey illustrate clearly the tendency towards inordinate spread at the base of the pyramid, taking Form I openings and *Harambee* schools together into account. This is very largely due to the fact that political pressures are concentrated on opportunities for Form I entry. In comparison, Form V openings have been inadequately provided for. We cannot underline too clearly the importance of a sufficient provision at Form V level from the standpoint of development in Kenya. In this matter, political hunches are a poor guide and it is, we feel, the plain duty of the Government to see that the pressure to open more Forms I is not allowed to interfere with ensuring appropriately ample opportunities at the higher level. Unfortunately, the choice here lies between a protracted education for the few and a smattering for the many, and to prefer the latter is always more popular. However, just as we have urged in paragraph 541 that concessions to the general clamour for more and more primary schools must not be allowed to detract from proper development in the secondary and technical sectors, so we must insist here that the multiplication of Forms I to IV must on no account be permitted to stand in the way of justice to Forms V and VI.

Technical and Commercial Education

682. One of the most important problems of educational planning is the future development of technical and commercial education. As we have already observed in paragraph 17, perhaps the most urgent question with which we have been occupied has been "the need to see education in the context of national economic development; for upon the adequate fulfilment of this objective, our ability to reach all other national goals, including those in education, depend". It is, therefore, essential to measure those educational facilities that feed directly into the machinery of production against the expected demand as measured by the manpower survey. That it is exceptionally difficult to marry future supply and demand in this field of educational activity nobody will gainsay, mainly for two reasons. First, the precise extent and character of future demand for skilled manpower is as inscrutable as the future trend of the economic activities that give rise to it. Secondly, even when training requirements are known,

it is not clear whether it will be best or most conveniently provided in full-time, part-time, sandwich or day-release courses. Consequently, the accommodation required cannot be assessed with the same precision as is possible in the case of secondary schools.

683. Another difficulty in forecasting the demand for educational services of this kind arises out of the great diversity in the nature and length of courses. Moreover, some types of training are organized jointly by industry, or some training institution, and an educational institution. In applying the results of the manpower survey to assess demand, therefore, it is necessary to assume a measure of tolerance in estimating institutional requirements.

684. The use of broad occupational categories in the manpower survey make it difficult to estimate demand over the whole range of educational provision for which the Government must accept responsibility. We have, however, been able to make provisional estimates in three main classes of training which are of clear economic importance, namely, the training of engineering technicians, training in accountancy and the training of office secretaries and typists. Obviously, these categories do not exhaust the types of provision that are, or may come to be, made in response to demand. It will require consideration in every case as it arises whether the training problems posed by a new industrial development call for an adaptation of existing types (by superimposing, for an example, a period of specialized overseas training on a basic engineering technology course provided at the Polytechnic), or for the organization of new types of institutional training. While, therefore, we cannot say what depastures in the training offered at the Polytechnic or elsewhere will be needed, we can reliably anticipate a growth of demand in these main categories.

685. This growth has been estimated, as throughout this chapter, in accordance with provisional forecasts, based on 1964 prices, of the growth of the contributions of various sectors of activity to the monetary gross domestic product. The annual rates of growth in the periods 1962-70 and 1970-80 respectively are shown in Table XXIV, the former rates being those appearing on page 130 of the Development Plan, 1964-70. From this table, it will be seen that the annual growth rate in the manufacturing sector is planned to rise from 5.3 per cent to 9 per cent, a fact of major importance in estimating requirements of engineering technicians of various kinds; though other sectors also have a bearing on this demand. It is, therefore, of considerable importance that the expansion of facilities for engineering education should keep pace with the increase in demand. The need for office secretarial staff, on the other hand, arises not only in industry, but also in the professional and governmental fields and, in addition, it is probable that part of the demand consists in the replacement of secretaries and typists of a low grade of performance now in service by others more adequately qualified. We have already referred to the upgrading of required qualifications in paragraph 656 and we suggested in paragraph 665 (b) that actual demand was likely to exceed the demand indicated in the manpower

survey in this category, as no account was taken by the survey of demand created by such qualitative improvements. A raising of the level of qualification has two aspects, namely, the replacement of persons with substandard qualifications and inadequate general education on the one hand and an increase in the numbers willing and able to pursue their training to higher levels on the other. We refer again to the first of these problems in paragraph 689. The second calls for more upgrading classes aiming at higher levels of certification but does not, in general, affect the flow into employment.

Table XXIV

Annual Rate of Growth of Monetary Gross Domestic Product by Sectors

Sector	Annual Rate of Growth per cent	
	1962-70	1970-80
Electricity and Water	8.7	10.0
Manufacturing	5.3	9.0
Forestry	7.0	8.0
Construction	5.0	6.8
Banking, Insurance and Real Estate	7.0	6.5
Services	7.5	6.4
Transport, Storage and Communications	6.7	6.3
Government Services	4.5	6.2
Livestock	6.8	6.0
Fishing and Hunting	4.7	6.0
Agriculture	6.8	5.3
Rents	6.3	5.0
Mining and Quarrying	3.0	5.0
Wholesale and Retail Trade	3.4	4.0
Monetary G.D.P.	5.7	6.2

Table XXV

Estimated Supply and Demand for Certain Categories of Skilled Personnel 1970-80

Category	Present Annual Output, Kenya	Average Annual Demand, 1970-80	Potential Annual Output, 1970-80
Technicians	108	208 } 65 }	320
Draughtsmen	40		
Accountants:—			
Professional	7	20	16
Non-Certified	13	100	50
Bookkeepers	60	610	120
Stenographers, Typists, etc.	300*	580	600

* See paragraph 690 and Table XXVII.

686. As regards the broad category of engineering technicians and draughtsmen (for whom the training is similar), the potential provision at the Kenya Polytechnic and the Mombasa Technical Institute is adequate.

We are clear, therefore, that there is no case in the foreseeable future for the establishment of a new engineering college giving training at the technician or senior technician level. A considerable reinforcement of the facilities of the Polytechnic for training in this field has already been brought about through the assistance given out of the United Nations Special Fund and additional teaching accommodation will shortly be provided with help from the United States Agency for International Development. The effective capacity for technician and other more senior courses will be further increased when preliminary and other courses below School Certificate level have been removed elsewhere, as suggested in paragraph 330. We have already expressed our view in paragraphs 335 to 337 that provision for technician and ordinary certificate or diploma work should be made at the Mombasa Technical Institute (formerly M.I.O.M.E.).

687. We have not been able to assess the overall demand for craft courses from the manpower survey, owing to the variety of occupations involved and the relevance of different types of craft training. The term "craft" covers a wide range of skills, some intricate and exacting, others somewhat less onerous in their demands. Consequently, as may be expected, training in craftsmanship is given in a number of ways. Some is provided wholly within industry under apprenticeship training schemes; some involves a combination of industrial training and institutional education of the type of the Mechanical Engineering four-year course in Craft Practice (City and Guilds of London Institute course No. 193) at the Polytechnic, based on one day of release time and two evenings each week. We must also remember the preliminary craft training (up to intermediate City and Guilds standard) given during the last two years of a four-year secondary trade school as proposed in paragraph 239. We wish to emphasize once again the importance of the secondary trade school as proposed in paragraphs 237 to 240. Craftsmanship, particularly in the more modern sections of the economy, require an adequate educational background, the absence of which may cause disastrous inefficiency. This was the main ground on which we based our recommendation for bringing the technical and trade schools into the secondary school system and extending the course to four years.

688. For the reasons stated in the foregoing paragraph, it is not easy to assess the adequacy of existing or projected craft training schemes, particularly during a period of transition. The ultimate goal is undoubtedly to recruit persons for craft training after the completion of the secondary school course to school certificate level. Our proposal for a secondary trade school was intended to raise the general educational level and at the same time, on an interim basis, to provide the beginnings of craft training. For some time to come, there is likely to be some continuation of entry into apprenticeship training at something above K.P.E. level, supported by educational courses of the type of City and Guilds 193 (*see* paragraph 687), but as the secondary trade schools get going, the value of the more extensive educational foundation will become apparent. At that stage, an expansion of the system of secondary trade schools will be imperative. In Table XXVI,

we have related the projected initial output of these schools to the estimated average annual demand in the period 1970-1980. Progress towards meeting the entire demand in the crafts involved, and the addition of further types of craft training, will require careful consideration at that juncture. It appears certain, however, that additional secondary trade schools will be needed.

Table XXVI

Average Annual Demand in Certain Crafts in 1970-80 Related to Projected Output of Craft Courses in Secondary Trade Schools

<i>Craft Group</i>	<i>Average Annual Demand, 1970-80</i>	<i>Annual Output of Craft Courses</i>
Electrical Installation and Fitting	164	80
Carpentry and Joinery	175	40
Brickwork, Masonry, Concrete Work ..	103	20
Motor Vehicle (including farm Machinery) Mechanic	331	140
Mechanical Engineering Craft Practice ..	378	120
Sheet Metal Working and Welding	109	40
Painting and Decorating	136	20
Plumbing	30	20
Tailoring	162	20

689. We now look at the commercial and secretarial field. Training in the office arts of a good standard, based on qualifications awarded externally by the Royal Society of Arts, the London Chamber of Commerce and Pitman's Examinations Institute, is provided at the Kenya Polytechnic, the Government Secretarial Colleges in Nairobi and Mombasa and certain private secretarial colleges. In addition, there appears to be a substantial number of secretarial colleges, which award their own diplomas and reach, for the most part, very low standards of attainment. In fact, we have evidence to show that, in some cases, the level of performance demanded for the issue of a college diploma is so low as to render the diploma worthless and even misleading. It is important not to hamper the activities of those private institutions that are doing excellent work and are making a real contribution to the economy, but it is equally important to eliminate those whose contribution is inferior to the point of being bogus. We suggest that, in forthcoming educational legislation, *it should be made an offence to issue an educational diploma of any kind without the prior approval of the Chief Education Officer*. By this means, private colleges can be obliged to prepare their students for the examinations of the Royal Society of Arts, of Pitman's Examinations Institute, or of other similar bodies of proved worth, or to go out of business. For the sake of greater office efficiency in industry, commerce and the public service, we attach great importance to this proposal.

690. In the absence of detailed information about the output of private secretarial colleges, we have made an assessment of the number of persons in Kenya who qualified in 1964 for the first time as stenographers and typists of an acceptable standard by aggregating the number of persons who passed external examinations in these subjects in Table XXVII. The grand total is the "supply" figure used in Table XXV, column 2.

Table XXVII

Number of Persons Passing Examinations in Stenography and Typewriting in 1964 at the Minimum Acceptable Standard

There is considerable overlap between the typists and the stenographers.

STENOGRAPHY—		
Royal Society of Arts: Shorthand Grade II . . . . .	.. ..	2
Pitman's Examinations Institute: Shorthand, 100 w.p.m. . . . .	.. ..	118
London Chamber of Commerce: Shorthand Intermediate . . . . .	.. ..	11
TOTAL OUTPUT OF QUALIFIED STENOGRAPHERS .. ..	.. ..	<u>131</u>
TYPENWRITING—		
Royal Society of Arts: Typewriting Grade II . . . . .	.. ..	10
Pitman's Examinations Institute: Typewriting Intermediate . . . . .	.. ..	270
London Chamber of Commerce: Typewriting Intermediate . . . . .	.. ..	8
TOTAL OUTPUT OF QUALIFIED TYPISTS .. ..	.. ..	<u>288</u>

691. We wish to emphasize the importance, not only of controlling the private secretarial colleges on the lines suggested in paragraph 689, but also of requiring them to provide regular statistics of entries and passes, for which adequate provision already exists under section 58 (1) (e) of the Education Act. We do not know at present what is likely to be the future contribution of private colleges to the training of office personnel, but we wish nevertheless to put forward two proposals. First, we believe that there should be a marked increase of grant-aided provision for persons who have already left school. Secondly, we are of the opinion that some provision for the office arts should be made in selected secondary schools.

692. As regards the first, we suggest that there should be an increase of output from the Kenya Polytechnic and the Mombasa Technical Institute of 250-300 per annum, in addition to upgrading courses. That will leave to the private colleges the responsibility for an output of about 300 per annum. It should, however, be noted that the demand figure in the third column of Table XXV represents an average over the ten-year period. The demand is likely considerably to exceed this figure in the latter part of the decade.

693. We also think that for the time being some provision should be made in selected secondary schools for training in shorthand and typewriting leading to the ordinary level examination in this subject of the University of Cambridge Local Examinations Syndicate. Part of this provision might be in a "commercial" secondary trade school organized on the lines suggested in paragraph 238. In addition, specific provision for this option should be made in certain general secondary schools, of which we saw a pioneering example at Ikagaki in the Central Province. It is, however, very important that provision for the office arts should be kept within bounds and should not be allowed to interfere with a proper attention to the general academic subjects. Good secretaries are not only skilled in the office arts, but are also persons with a broadly-based education and a firm hold on the English language. They require to be possessed not only of special manipulative skills,

but also intelligence, adaptability and a fine perception of linguistic niceties. Therefore it is the whole of their secondary education, and not merely the particular part of it devoted to the office arts, that is of great importance to them*.

694. Students chosen or electing to take the office arts should include in their number some with high potentiality and all should have received a secondary education. In no circumstances should the Kenya Preliminary Examination alone be regarded as a sufficient preliminary qualification. Some first-class personal secretaries in industry and elsewhere these days are graduates and fill a key role. It should therefore be made possible for a small number of students of high academic standing to include the office arts in their training. As we wrote in paragraph 383, "good secretarial services are vital to industrial and commercial proficiency"—and also, we might add, to the efficiency of the public service. The measures that we here propose are, therefore, crucial to the economy and good government of Kenya.

695. One reason for indifferent secretarial standards lies in the shortage of qualified and expert teachers. Those who give instruction in shorthand and typewriting, particularly in the secondary school, must themselves be educated persons who are fully aware of the educational context of this subject. Mere drilling in mechanical skills is only a part of the training for secretarial work. We recommend, therefore, that the training of teachers of the office arts should become a part of the work of Kenyatta College.

696. Many non-certified accountants, bookkeepers and cashiers are trained on the job and it is, therefore, reasonable to assume that half of those required will attend courses at the Polytechnic or elsewhere, leading to qualifications of the Royal Society of Arts, or the Institute of Bookkeepers. In Nairobi and Mombasa, such courses could and should be provided on a day release basis at the Polytechnic and the Mombasa Technical Institute respectively. Up-country trainees could probably be given block release courses of 10-12 weeks at a time at the Polytechnic. In addition, part-time courses in elementary bookkeeping could appropriately be organized on the lines suggested in paragraphs 350 to 354 and 640 to 643.

The Revenue Problem and the Development of Schools and Colleges

697. In this Report, we have made recommendations about the growth of primary education based on the notion that, at the present stage in this country's growth, it would be inappropriate to allocate to this sector a greater proportion of the revenue than at present. At the same time, we have made recommendations about the growth of secondary and technical education and the training of teachers that are based on the ascertained need for manpower as disclosed by the manpower survey*. We have, of course, added the rider that the manpower survey, being a pioneering attempt to assess occupational

* Secondary schools equipped for the office arts should, where possible, also offer evening classes to part-time students, in order to ensure the maximum use of expensive equipment.

* We have, however, modified the findings of the survey in respect of teachers.

demand, cannot be regarded as an unflinching guide and that conclusions now reached should be carefully reviewed as more information becomes available to the manpower unit in the Ministry of Economic Planning and Development.

698. The conclusions to which we have come are summarised in the following paragraphs. It must be recognized that, for reasons that we shall give, our recommendations are minimal. We have, indeed, as we were directed to do in our terms of reference, been at pains to limit our recommendations to objectives that are within the capacity of the country to fulfil. It must not, therefore, be supposed that our assessments leave space for substantial economies. It is in fact our fear that any marked reduction of the programme that we have set out can hardly fail to have serious economic or political consequences.

(1) Primary Education

699. We must point out that our proposals on primary education are conservative and fall short of the hopes of many people. This cautious approach was due to the fact that, in accordance with our terms of reference, we were under an obligation to have due regard for the resources likely to become available. Any reduction in the pace of development below the level suggested would be politically hazardous and economically damaging, having regard for the economic importance of primary education as described in paragraph 539.

(2) The Training of Primary Teachers

700. Our proposals for the training of primary school teachers are geared to the increase in the primary sector suggested in Chapter IX on the one hand and to the staffing pattern set out in paragraph 546 on the other hand. This pattern is economical and, in view of the urgent need to raise educational standards in the primary school, it represents the minimum improvement over the present situation that can be contemplated. Consequently, a training programme along the lines suggested in Table XVII is a minimal programme and must on no account be reduced.

(3) Secondary Schools (Main School)

701. It might be inferred from paragraphs 664 and 665 that some economy in the provision of Forms I to IV would be possible, but this is not so. First, we have set out reasons in paragraph 665 for supposing that the manpower survey provides an infirm basis for estimating secondary school requirements at the present stage. That paragraph shows that a reduction in the momentum of new secondary school provision would be in danger of leading to a failure to meet the expected manpower requirements of the country in the next decade. There is, however, another factor that must be taken into account. Table XXVIII shows the approximate trend in the index of opportunity on the assumptions in the Government's Development Plan for the expansion of Form I enrolment. It will be seen that, with the exception of 1966, in which the fall of the index presents a special problem, there is

very little change in the index during the six-year period. Any marked cut-back in expansion would, however, cause a definite downward trend of the index and such a decline would be very likely to provoke a further round of agitation for *Harambee* schools and to present the Government once again with a difficult problem of control.

Table XXVIII
The Provision of Form I Places in the Government's Development Plan
and the Index of Opportunity

	1965	1966	1967	1968	1969	1970
K.P.E. Entries in the Previous Year	103,000	165,000	134,000	145,000	135,000	135,000
Form I Enrolment	11,500	12,950	14,000	15,050	15,700	17,100
Index of Opportunity ..	11.2	7.8	10.4	10.4	11.7	12.6

702. The anticipated fall of the index in 1966 is due almost wholly to the conversion of the 8-class primary school into a 7-class school. It is now too late to re-phase this conversion, which has to be prepared some years in advance; but the crisis in the secondary school, to which this "bulge" of persons finishing their primary education gives rise, provides a clear object lesson on the need for careful advance planning of progress towards universal primary education and the avoidance of sudden spurts or lulls, because of their repercussions further up the educational ladder. In the present case, it will be necessary for the Government to take remedial action by anticipating some 1967 Form I openings and by careful advance planning for a controlled and regulated programme of openings of unaided streams, by "self-help" if necessary, wherever such streams are likely to be taken into aid in the near future. It may also be necessary to open a once-for-all campaign to recruit local teachers on short-term contracts of service to supplement supply at this crucial juncture.

(4) Secondary Schools (Fifth and Sixth Forms)

703. It will already have been seen that the Government's programme for sixth forms is inadequate and requires supplementation. The increase that we have proposed is less than the manpower figures appear to justify and cannot, therefore, be described as extravagant. Owing to the great importance to the economy and the life of the country of an adequate provision at this level, we are clear that any cut-back in fifth and sixth forms as proposed in this Report would be likely to slow down development in Kenya. It is clear, therefore, that the momentum of this part of the development programme, augmented as we propose, must be maintained.

(5) Technical and Adult Education

704. Our references to technical education, part-time classes and other forms of post-school education are closely related to the ascertained needs of the economy. Though they may require modification from time to time.

in the light of later studies of manpower requirements and trends in industrial and commercial development, the principle must be respected that education at this level contributes directly to the economy and should be geared to it. Any suggestion, therefore, that education of this kind can be sacrificed to a demand for economies is, therefore, a dangerous doctrine and cannot be entertained without jeopardy to the country's economic prospects. *No circumstance is more likely to discourage foreign investors than a belief that the necessary skilled manpower will not be forthcoming.*

705. We conclude this review of our main recommendations by considering the country's ability to pay. In paragraph 555, we explained our reasons for assuming an average annual rate of increase of resources available in support of primary education of $6\frac{1}{2}$ per cent. In Table XXIX, it will be seen that our recommendations in other sectors of the educational system, notably in secondary education, involve a higher rate of increase. Consequently, by 1970 education will be taking a larger share of the revenue than in 1964. Can this revenue allocation be sustained, in view of other commitments? A rough estimate suggests that the share of central and local government revenues taken for education is likely to rise during this period from about 18 per cent to about 22 per cent.

Table XXIX

Increase in the Net Cost of Education Occasioned by the Main Recommendations in this Report

<i>Calendar Year</i>	<i>Net Cost of Primary</i>	<i>Net Cost of Secondary, Technical, Teacher Training and Administration</i>	<i>Total Net Cost</i>	<i>Annual Increase of Total Net Cost</i>
	£ mil.	£ mil.	£ mil.	%
1965	5.2	4.0	9.2	11%
1970	8.0	7.3	15.3	

NOTE.—These estimates make provision for our recommendations on part-time courses (paragraphs 350 to 354 and 640 to 643), special short courses for teachers (paragraphs 454 to 458), the enlargement of the Inspectorate (paragraph 466), the improvement of feeding standards in certain secondary schools and training colleges (paragraph 50); 15 extra fifth and sixth forms (Table XIV) and other recommendations of minor cost. To be on the safe side, we have adopted the higher figure of costing of primary education in 1970 given in Alternative 1 of Table VII.

706. The increase in the share of the revenue to be given to education is an indication of its importance as an investment at this stage in the country's development. In our Reports, we have given special weight to the economic functions of education at different points in the system. They are not the only functions, but they have a special relevance to the country's needs. Although various attempts have been made to evaluate the investment value of educational expenditure, there is at present no satisfactory way in which the material returns to be derived from it can be calculated. Consequently, decisions as to the appropriate share of national resources to

allocate to education have to be taken on general grounds rather than as a result of numerical calculations. We have attempted to set out general arguments for this purpose in our Report. We understand, however, that the Government's development proposals, involving expenditure at approximately the rate of £14.9 millions in 1970, have been endorsed by the Treasury from the recurrent cost angle, subject, of course, to the usual safeguards about the availability of funds in any particular year. We appear, therefore, to have authoritative grounds for believing that the scale of expenditure recommended by us is realistic.

General Conclusions

707. We conclude this chapter of educational calculations based on the manpower figures by saying that it has indicated to us the general proportions to be assumed by the educational system in the near future. We have explained some of the limitations to which the manpower figures are subject. The follow-up manpower studies that are to become a regular function of government will add further precision to this first exercise. In addition to providing some general indications of the dimensions of the system and establishing for the first time a statistical relation between education and the economic system, our work on the manpower survey has enabled us to essay method of educational planning, which waits only for further elaboration and refinement as additional facts become known. The intricacy of this first exercise, the large number of variables calling for investigation, the questions of probability that lie behind many of our estimates and the endless problems of classification, definition and approximation—all of these are hazards in the path of the educational planner that had to be faced with courage and patience. We present this chapter as an indicator, to assist in the formulation of policy, and as a methodological sample for future reference.

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Staffing of Secondary Schools of Various Sizes

FORMS 1-IV	1 stream ..	6 teachers
	2 streams ..	11 teachers
	3 streams ..	17 teachers
	4 streams ..	22 teachers
	5 streams ..	28 teachers
FORMS V-VI	1 stream ..	3 teachers
	2 streams ..	6 teachers
	3 streams ..	9 teachers
	4 streams ..	12 teachers
	5 streams ..	15 teachers

Some slight addition to the above staffing may be necessary in a school offering several practical subjects.

Suggested Administrative Posts and Salary Scales Appropriate to Different Kinds and Sizes of Secondary School and Training College

A. Secondary Schools (in this appendix, G means grade)—

1. DAY SCHOOLS:

(a) Single Stream	I-VI	35-190 pupils	Clerk G2/3	£236- 364
(b) Double Stream	I-IV	175-280 pupils	Clerk G2	£236- 364
			Copy Typist G2	£286- 316
	I-VI	305-380 pupils	Bursar Ex. Off. G3	£670- 820
			Clerk G2	£236- 364
			Copy Typist G2	£286- 316
(c) Three Streams	I-IV	315-420 pupils	Bursar Ex. Off. G3	£670- 820
			Clerk G2	£236- 364
	I-VI	425-570 pupils	Bursar Ex. Off. G3	£670- 820
			Clerk G2	£236- 364
(d) Four Streams	I-IV	455-560 pupils	Bursar Ex. Off. G2	£850-1060
			Clerk G2	£236- 364
	I-VI	585-760 pupils	Bursar Ex. Off. G2	£850-1060
			Clerk G2	£236- 364
			Copy Typist G2	£284- 316
(e) Five Streams	I-IV	} 595-950 pupils	Bursar Ex. Off. G2	£850-1060
	I-VI		Clerk G2	£236- 364
			Copy Typist G1	£332- 364
			School Sec. G2	£633- 816

2. BOARDING SCHOOLS:

(a) Single Stream	I-IV	35-140 pupils	Housekeeper-Cateress G2	£209-16- 227-8
			Clerk G2	£236- 364
	I-VI	165-190 pupils	Bursar Ex. Off. G3	£670- 820
			Copy Typist G2	£284- 316
			Housekeeper-Cateress G2	£209-16- 227-8
(b) Double Stream	I-IV	175-280 pupils	Bursar Ex. Off. G3	£670- 820
			Clerk G2	£236- 364
			Copy Typist G2	£284- 316
			Housekeeper-Cateress G1	£300- 440
	I-VI	305-380 pupils	Bursar Ex. Off. G3	£670- 820
			Clerk G2	£236- 364
			Copy Typist G2	£284- 316
			Shorthand Typist G2	£460- 520
			Housekeeper-Cateress G1	£300- 400

(c) Three Streams	I-IV	315-420 pupils	Bursar Ex. Off. G2	£850-1060
			Clerk G2	£236- 364
			Copy Typist G1	£332- 364
			Secretary G2	£633- 816
			Matron Cateress G2	£460- 580
	I-VI	445-570 pupils	Bursar Ex. Off. G2	£850-1060
			Accounts Clerk Ex.	
			Off. G3	£670- 820
			Higher Clerical Officer	£380- 506
			Copy Typist G1	£332- 364
			Personal Sec. G2	£687-1011
			Matron-Cateress G2	£460- 580
(d) Four streams	I-IV	455-580 pupils	Bursar Ex. Off. G2	£850-1060
			Accounts Clerk Ex.	
			Off. G3	£670- 820
			Higher Clerical Officer	£380- 506
			Copy Typist G1	£332- 364
			Personal Sec. G2	£687-1011
			Matron-Cateress G1	£600- 820
	I-VI	585-760 pupils	Bursar Ex. Off. G1	£1,096-1348
			Accounts Clerk	£670- 820
			Higher Clerical Officer	£380- 500
			Copy Typist G2	£284- 316
			Copy Typist G1	£332- 364
			Personal Sec. G1	£855-1011
			Matron-Cateress G1	£600- 820

B. TRAINING COLLEGES FOR TEACHERS:

2-6 Classes	50-150 Students	Clerk G2	£236- 364
		Copy Typist G2	£284- 316
		Housekeeper-Cateress G2	£209-16-227-8
7-10 Classes	175-250 Students	Bursar Exec. Off. G3	£670- 820
		Clerk G2	£236- 364
		Copy Typist G2	£284- 316
		Housekeeper-Cateress G1	£300- 440
11-14 Classes	275-350 Students	Bursar Exec. Off. G3	£670- 820
		Clerk G2	£236- 364
		Copy Typist G2	£284- 316
		Copy Typist G1	£332- 364
		Matron-Cateress G2	£460- 580
15-18 Classes	375-450 Students	Bursar Exec. Off. G2	£850-1060
		Secretary G2	£633- 816
		Clerk G2	£236- 364
		Copy Typist G2	£284- 316
		Copy Typist G1	£332- 364
		Matron-Cateress G2	£460- 580

C. SUGGESTED POSTS AND SCALES FOR HOUSEKEEPERS AND CATERERS:

<i>Basic Education</i>	<i>Title of Post</i>	<i>Scale</i>	<i>Salary Range</i>
KPE	Housekeeper-Cateress G2	G10 plus four increments	£209-16-227-8
CSC	Housekeeper-Cateress G1	G9 plus four increments	£300- 440
CSC or HSC	Matron-Cateress Grade 2	G8	£460- 580
CSC or HSC	Matron-Cateress Grade 1	G6	£600- 820

Appendix 11

Approximate Capital and Recurrent Cost of a Single-Stream Day Secondary School

The calculations in this Appendix are based on the assumption that the staff shown in the following table represents the minimum requirement of a secondary school. For comparison, the approximate minimum staffing of a maintained secondary school is shown.

MINIMUM STAFFING STANDARDS OF SECONDARY SCHOOLS

<i>Years</i>	<i>"Harambee"</i>	<i>Maintained</i>
1st	2 PI	1 S1, 1 Graduate
2nd	2 PI, 1 S1	1 S1, 2 Graduates
3rd	2 PI, 1 S1, 1 Graduate	2 S1, 2 Graduates
4th	2 PI, 2 S1, 2 Graduates	2 S1, 4 Graduates

	<i>Year</i>				
	1	2	3	4	5
Recurrent Cost, Gross	£1,980	£2,390	£3,700	£5,260	£5,160
Less Fees	430	860	1,290	1,720	1,720
<i>Net</i>	£1,550	£1,530	£2,410	£3,540	£3,440
Capital Cost	£17,200	£2,400	£4,100	£2,400	Nil
	£18,750	£3,930	£6,510	£5,940	£3,440

Capital costs include six staff houses but no school refectory. It is assumed that all buildings must be built and none are taken over from a primary school. Fees are assumed to be at the rate for a maintained school, viz. Sh. 250 per annum.