

Improving the managerial
effectiveness of higher
education institutions

The management of double
intakes: a case study of
Kenyatta University

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International Institute for Educational Planning

**The management of double intakes:
a case study of Kenyatta University**

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The management of double intakes: a case study of Kenyatta University

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Preface

Over the last decade, as a result of financial stringency, combined with demands for expansion of enrolments and improved efficiency, higher educational institutions have been forced to reduce expenditure, seek new sources of funding and improve the utilization of existing resources. This has necessitated changes in the mechanisms, techniques and styles of institutional management. At the same time, higher education has had to cope with increased diversification and new types of students, including adult learners, so as to meet the changing needs of the labour market and foster closer links with industry as well as widen participation through the introduction of distance learning.

The implementation of innovation and change in institutional management, however, often faces obstacles and problems, including internal resistance, inadequate staffing or financial resources to make the change effective, or insufficient time devoted to preparing and planning for change.

It is against this background that in 1990 the IIEP launched a research programme on 'Improving the effectiveness of higher educational institutions' whose purpose was to increase understanding of the process of planning, introducing and implementing management changes in higher education institutions, in order to improve utilization of resources. The project aimed at identifying factors associated with success or failure, exploring ways of overcoming obstacles or problems, and suggesting methods to improve institutional management and increase

the responsiveness of higher education institutions to changing financial, economic and social pressures.

The research programme has several components, i.e. an information base, case studies and training materials and workshops. The case studies were a particularly important element since they were designed to identify the factors and strategies associated with successful innovation and change, and show the obstacles and problems to be overcome. This information was then subsequently used for the training materials and as a major input to the synthesis of the research programme.

Several types of innovation and change were pinpointed for particular study:

- (i) Change in the organization of institutions:
 - New forms of decision-making structures and information flows.
 - The merger of separate institutions, departments or units.
- (ii) Changes in financial management and resource allocation:
 - Devolved budgeting.
 - Resource generation.
- (iii) Changes in educational delivery systems:
 - From semester to trimester, from block to credit system, rationalization of curricula, double intakes.
- (iv) Changes in staff management, including staff development and appraisal.

In total, 14 case-studies and one desk-study were carried out, three each in Africa, Asia and Latin America and five in developed countries.

The study published in this volume falls under category (iii) above and has contributed to an experience of change in order to utilize university facilities more intensively.

In the case of Kenyatta University, it became necessary to adjust from a 7-4-2-3 cycle educational system to 8-4-4 cycle, which meant an extra year at university level involving a double intake in 1990. The solution adopted was year-round teaching.

In the process of change a number of problems were encountered due to insufficient awareness of the complexity and integrated nature of changes required to successfully accommodate an extra year. The university felt it needed:

- innovation in teaching methods;
- technology (such as close circuit television);
- computerized admission and student records;
- incentives for staff;
- consensus building;
- decentralization and training for administrators and heads of department;
- better and continuous government/university co-operation.

Costings show economies of scale have been achieved but students will take an extra year to graduate due to shorter teaching time and lack of tutorials and equipment.

This study, read in conjunction with that on change to a trimester system in the Philippines ('Change from a semester to a trimester system at the De la Salle University, Philippines, IIEP Research Report No. 94 Bautista O. et al. (1992)) provide useful experience for those institutions wishing to extend their academic years.

The overall results of the research programme will be published shortly in a synthesis of wide-ranging scope which covers the most important domains of university management.

Jacques Hallak
Director

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Introduction

One of the major crises facing most African universities is finance. During the last two decades, growth in student enrolments has often not been matched by the level of government funding to these institutions. Universities of the region have responded to this crisis in a variety of ways. They have learned to cope with what is available, sought supplementary funding from their respective governments, reduced their expenditures, sought new sources of funding, and improved the utilization of the limited resources available to them.

Better utilization of available resources has often called for a change in the mechanisms, techniques and styles of institutional management as well as in the content and methods of teaching. But such changes have not always been easy to implement because of both internal and external resistance to change, lack of adequate time for planning the required changes, lack of the necessary resources or just because those charged with the responsibilities of implementing the changes are not dynamic enough (IIEP, 1990: pp. 1-2).

In many ways, Kenya's public universities, perhaps more than others in the region, symbolize the experiences cited above. During the last decade or so, Kenya's public university system has experienced very high rates of growth which have often not been accompanied by a commensurate rise in the level of government funding. The most extreme examples of this phenomenon are represented by the double intakes of the 1987/1988 and 1990/1991 academic years when two different groups of graduating secondary school leavers were admitted to the public universities at the same time.

*The management of double intakes: a case
study of Kenyatta University*

This study is limited to the experiences of Kenyatta University, the second largest university after the University of Nairobi. These experiences are analyzed with regard to only one of the double intakes, namely the 1990/1991 one. The questions posed by the case-study include what led to the 1990/1991 double intakes, how was this innovation implemented, what were the main obstacles to the implementation process, and what lessons are to be learned from the Kenyatta University experience.

Chapter I

The study: background information, research objectives, design and implementation

1. Background: the research setting

One of the main development challenges facing independent Kenya was a shortage of qualified Kenyans to run the economy and the government efficiently. With the attainment of independence in 1963, out of a population of about nine million, only about 500 Kenyans were enrolled in the university system, with one million enrolled in primary schools and 36,000 in secondary schools (see *Table 1.1*). Because of this, the Government of independent Kenya has given a rather high priority to the development and expansion of educational opportunities so as to meet the manpower demands of both the public and private sectors as well as the great public demand for formal education, a demand which is fuelled by the existence of a strong relationship between formal educational attainment and a given individual's earned income and the need by the government to use the education system as a means of legitimizing the distribution of rewards in society.

The rapid expansion of education especially at primary and secondary school levels which resulted from the above factors has in turn exerted a great deal of pressure on the university system. As an example, in 1990, 133,340 secondary school leavers competed for an estimated 10,000 places available in the four Kenyan public universities for the 1991/1992 academic year (Wamahiu, 1991). Mainly due to such a demand for university places, Kenya now has four public universities.

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Table 1.1 Quantitative growth of education in Kenya, 1963-1991 ('000)

Year	Primary Education		Secondary Education		University Education			
	Schools	Pupils	Schools	Pupils	Universities	Students		
					State	Private	Local*	Abroad***
1962	6.20	935.77	0.16	26.59	+	-	--	--
1963	6.06	891.55	0.15	30.12	+	-	0.44	--
1964	5.15	1 010.89	0.22	35.92	+	-	0.65	--
1965	5.08	1 014.72	0.34	47.98	+	-	0.93	--
1966	5.70	1 043.42	0.40	63.19	+	-	1.15	--
1967	6.01	1 133.18	0.54	88.78	+	-	1.52	--
1968	6.14	1 209.68	0.60	101.36	+	-	1.78	--
1969	5.94	1 282.30	0.69	115.25	+	-	2.24	--
1970	6.12	1 427.59	0.78	126.86	1	-	2.58	--
1971	6.27	1 525.49	0.81	140.72	1	-	3.30	--
1972	6.66	1 675.92	0.85	161.91	1	-	3.08	--
1973	6.93	1 816.02	0.96	175.33	1	-	3.53	--
1974	7.73	2 711.66	1.02	195.83	1	-	3.63	--
1975	8.16	2 881.16	1.16	226.84	1	-	3.58	--
1976	8.48	2 894.62	1.27	280.39	1	1	3.69	--
1977	8.89	2 974.85	1.47	320.31	1	1	3.87	--
1978	9.40	2 994.89	1.75	361.62	1	1	4.96	1.18
1979	9.62	3 698.25	1.78	384.39	1	1	5.57	1.34
1980	10.26	3 973.04	1.86	419.20	1	2	5.67	1.29
1981	10.82	3 981.16	1.90	420.55	1	2	5.70	1.21
1982	11.25	4 158.97	2.13	443.37	1	2	-	1.44
1983	11.97	4 323.82	2.23	468.15	1	2	9.22	7.45
1984	12.54	4 384.81	2.40	458.71	2	3	9.14	--
1985	12.94	4 843.50	2.42	522.26	2	5	9.15	--
1986	13.39	5 031.40	2.59	525.00	3	4	10.14	--
1987	13.85	5 120.00	2.60	530.00	4	4	17.91	--
1988	14.00	5 326.00	2.63	542.00	4	4	21.74	--
1989	14.12	5 531.00	2.71	561.00	4	5	27.57	--
1990	14.20	5 680.00	2.75	569.00	4	5	39.72	--
1991*	14.30	6 220.00	2.79	572.00	4	5	41.67	--

Source: Education Statistics Unit, Ministry of Education.

Notes:

- * Provisional
- ** Students in State University only
- + A college of the University of East Africa
- Data not available
- No enrolment (University closed)
- *** Students going abroad for university education

In addition to Nairobi, which was established in 1970, there is Moi University established in 1984, Kenyatta University in 1986 and Egerton University in 1987. In addition to these government supported universities, there are several private university educational institutions operating in the country.

The specific focus of the study is on one of the many aspects of change necessitated by increases in the population of university students, namely the double student intakes of the 1990/1991 academic year. Kenyatta University's first experience with the double intakes was during the 1987/1988 academic year as a result of a lag in university admissions due to the university closure of 1982/1983 following an attempted *coup d'état* in favour of which some university students demonstrated. This study is, however, on the second double intakes of the 1990/1991 academic year which resulted from the change in Kenya's educational system from the 7-4-2-3 (seven years of primary education, four of ordinary level secondary, two of advanced level secondary and three of university education) to the American style 8-4-4 system comprising eight years of primary education, four of secondary and four of university education. This shift resulted in a situation whereby two groups of students – that from the old system (the 'A' level group) and that of the new system (the 'O' level group) – had to join university the same year.

(a) *Kenyatta University (1965-1992)*

Present day Kenyatta University was the site of a British army base until 1965 when it was handed over to the Kenya Government. Between 1965 and 1985 the institution has developed from an 'A' level secondary school, teachers' education college, a constituent college of the University of Nairobi to a fully fledged university (Republic of Kenya, 1981a).

On August 23, 1985, the Kenyatta University Act received Presidential assent which led to the institution becoming the third public university in Kenya. The new university was inaugurated on December 17, 1985. It now has powers to establish new faculties and constituent colleges. Currently, Kenyatta has one constituent college, the Jomo Kenyatta University College of Agriculture and Technology (JKUCAT), which offers degree and diploma programmes in the fields of engineering, architecture and agriculture.

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The degree programmes offered by Kenyatta University are: Bachelor of Education (arts); (science); (home economics); and (Primary Option); Bachelor of Arts; science; environmental education; Post-graduate Diploma in education; and in curriculum development. In addition to these undergraduate programmes, the university also offers masters and doctoral degree programmes. *Table 1.2* below gives an indication of the enrolment trends at Kenyatta University for the years 1976 to 1993.

As is clear from *Table 1.2*, total student enrolments at Kenyatta University grew by 243 per cent between 1976 (when the institution became a constituent college) and 1986 (when the institution became a fully fledged university). By 1990 (the year of the second double intakes) student enrolments had soared by 270 per cent (between 1985 and 1990).

As we shall later show, the tremendous growth in student numbers which Kenya's public universities have experienced in the late 1980s has led to a duplication of degree programmes, some of which have been fairly well established elsewhere. As an example, BA, BSc, and BCom. programmes were established at the newer universities of Kenyatta, Egerton and Moi. Likewise, the education programme which was firmly established at Kenyatta was started at all the other public universities. As a result, Kenyatta University has tended to serve as a poaching ground for teaching staff in the field of education by the other three public universities as well as by the private institutions of higher learning. This has resulted in a situation whereby Kenyatta University has since the late 1980s lost a substantial proportion of their teaching staff especially those in the lower and middle grades who are in search of easy promotion opportunities.

*The study: background information, research objectives,
design and implementation*

Table 1.2 Undergraduate students enrolment at Kenyatta University by sex and status of Institution, 1976-1993+

Status of Institution	Academic Year	Students		
		Male	Female	Total
Kenyatta University College (1976-1985)	1976	538	281	819
	1977	663	320	983
	1978	938	466	1 404
	1979	1 070	496	1 566
	1980	1 416	814	2 230
	1981	1 220	933	2 153
	1982	**	**	**
	1983	1 265	1 083	2 348
	1984	1 294	1 078	2 372
	1985	1 179	1 160	2 339
Kenyatta University (1986-1993)	1986	1 483	1 330	2 813
	1987	2 719	2 247	4 966
	1988	3 416	2 708	6 122
	1989	3 882	3 122	7 014
	1990	5 132	3 522	8 657
	1991	5 529	3 746	9 275
	1992	***	***	***
	1993*	5 540	3 817	9 357

Source: Kenyatta University, (1992): Administrative Records, Office of the registrar.

Note: * Expected

** No intake and enrolment due to *coup d'état* attempt.

*** No intake and enrolment to streamline academic year.

+ These figures do not include post-graduate students.

2. The study

(a) Research objectives

The overall objective of the case-study is to give a descriptive account of the process of planning, introducing, implementing and evaluating the effects of the double intakes at Kenyatta University on management efficiency and resource utilization. More specifically, the case-study aimed at:

- describing Kenyatta University, its place in the new 8-4-4 national educational system (qualitatively and quantitatively) in the light of the double university intakes;
- identifying the factors that led to the initiation and implementation of the double intake;
- tracing the process of the double intakes as it originated in the new 8-4-4 educational system to its implementation (in 1990) and evaluate its effects on efficiency and resource utilization;
- studying the management of the double intake undertaken by Kenyatta University to efficiently utilize the existing and planned resources – human, physical and financial;
- identifying the problems and obstacles encountered at the outset, and during the implementation of the double intake, indicating how they were overcome or minimized;
- evaluating the management experience of the double intake system in terms of its original objectives, attitudes and judgments of those affected by the system;
- identifying the quantitative and qualitative effects of the double intake to the institution; and
- drawing practical conclusions and recommendations about ways of improving the efficiency and utilization of available resources, and the planning and implementing of the double intakes in the management of institutions of higher learning in Kenya.

(b) Rationale

This study is significant in several respects. *First*, in the sense that the study has attempted an evaluation of the management of change, its findings should serve as a useful reference document to planners, administrators, managers, financiers and practitioners dealing with higher education in Kenya and others concerned with the improvement of the effectiveness of the management of change in higher educational institutions in developing countries.

Secondly, in this way, the study will hopefully contribute to making possible more informed and effective decision-making and management in matters related to the implementation and monitoring of the new 8-4-4 educational system in Kenya and other educational and manpower development plans and projects of which the double university intake was a part.

Thirdly, the findings of the study should hopefully assist the government, national as well as international agencies dealing with higher education to improve the structures and organization of their related plans and activities on institutional management especially in situations involving use of limited resources.

Fourthly, this study should shed light on some of the management difficulties resulting from the double intakes and the extent to which they have or have not been overcome and the quality implications of increased student enrolments in the face of budgetary constraints. Although Hughes and Mwiria (1990) and Mwiria (1990) address the quality issue in relation to the double intakes, they do not provide much evidence to illustrate the depth of the crisis.

Chapter II

The origins and initiation of the double intakes system

1. Factors leading to the introduction of the double intakes system

Three main factors contributed to the initiation of the double intakes in Kenya's public universities. The first is the high population growth rate which Kenya has been experiencing especially since the early 1980s. The second is the shift in Kenya's educational system from the British style 7-4-2-3 cycle to the North American style 8-4-4 cycle. The third factor and one which is a direct consequence of the shift in Kenya's educational cycle, is the emphasis on a curriculum aimed at producing university products who would better fit in their respective environments.

(a) High population growth rates and related expansion of the school system

Kenya's population growth rate has averaged 3.9 per cent per annum during the last decade or so (World Bank, 1988: 157). Such a growth rate has in turn led to a soaring of the school age population at all levels of the system. The growth rate of Kenya's secondary school population during the last decade has averaged approximately 4.3 per cent. Such a growth rate has created a tremendous pressure for places in Kenya's public universities. As an example, in 1990, 133,340 secondary school leavers competed for an estimated 10,000 places available in the four

Kenyan public universities for the 1991/1992 academic year (Muya, 1991: 1). This means that only about 75 per cent of this group of secondary school leavers managed to find a place in the public universities.

The great demand for formal education at all levels of the system has been difficult to contain for several reasons. First, the noticeable rather strong relationship between education and formal sector employment as well as the strong association between the attained level of education and economic rewards have made the public demand more educational opportunities. As lower levels of education become less and less of a guarantee to formal employment, university-level education is now being sought by an ever increasing number of Kenyans. And because of the important role formal education plays in legitimizing the distribution of rewards in society, the Kenya Government has not thought it necessary or even desirable to control public demand for university education. In fact, the government has even supported increased enrolments in public universities irrespective of these institutions' capacity to accommodate increased student numbers. In 1988, for example, President Moi directed the Minister for Education and the Vice-Chancellors of the four national universities to work out ways of admitting most of the 13,000 qualified students left out in the recent selection. The President said he had been moved by appeals from the affected parents, students and Kenyans in general during the on-going public discussion.

Such politicization of the university system has contributed in a large measure to its rather unplanned expansion and the inevitable funding crisis currently being experienced by Kenya's public universities.

(b) The shift from the 7-4-2-3 educational system to the 8-4-4 cycle

The more direct cause of the 1990/1991 university double intakes was the shift in Kenya's education cycle from the 7-4-2-3 cycle to the American style 8-4-4 cycle. The main changes that came with the shift are: the primary school cycle was extended from seven to eight years; the advanced certificate of secondary education ('A' level) was abolished and the total number of years of secondary education effectively reduced from six to four years; and the university undergraduate cycle was extended from a three to a four year duration.

With regard to the 'A' levels and preparation for university education, several reasons were advanced for the new changes (Republic of Kenya, 1981b). First, the 'A' level system was blamed for not adequately preparing students hoping to enrol in the universities because the system was said to encourage specialization (in either the arts or sciences), and because many average and below average students were able to enrol in 'A' level streams. Second, the streaming that resulted from early specialization was blamed for turning out products who tended to be narrow in orientation and who were not particularly well prepared for life outside the school system.

Third, given the widespread expansion of 'A' level schools (and many of these tended to be arts streams), the education system was blamed for giving false hopes to too many Kenyans who enrolled in the 'A' level streams with the aim of joining the university. It was further noted that the existing system intensified both regional and social inequality. At the regional level, it was noted that the educationally disadvantaged regions of the country did not reap as much benefits from the 'A' level system as did those regions of the country where there were many well established secondary schools. These disadvantaged regions thus, did not enrol as many of their students in 'A' level streams mainly because such streams were available in the more economically advanced regions which also tended to have enjoyed historical advantages with regard to the establishment of both primary and secondary schools. At the individual level, it was noted that the majority of students studying arts subjects did not have as many options as their science counterparts. The latter did not only have more university courses to choose from but they also had more opportunities outside of the university system.

In view of the above, the *Report of the Presidential Working Party* on the establishment of the second university (Republic of Kenya, 1981b) recommended that the 'A' level segment of the secondary school system should be scrapped and that the entire education system should be restructured accordingly. The restructuring which followed effectively meant that at one point in time, and this time happened to be 1990, there would be different graduating secondary school students – the 'A' and 'O' level groups – enrolling in Kenya's public universities.

(c) *The need for a practically oriented education*

One of the main reasons given for the restructuring of the Kenyan education system from the 7-4-2-3 to the 8-4-4 cycle was that the previous model produced graduates who were not easily employable, could not take up self-employment or easily fit in their respective communities especially in the rural areas. Among other things, the Presidential Working Party on the establishment of the second university in Kenya, criticized the country's only university – the University of Nairobi – for not addressing "... the cultural, developmental, social and physical requirements of Kenya's rural areas where 80 per cent of the people live" (Republic of Kenya, 1981b: 13).

In addition to the above criticism, the University of Nairobi was also blamed for not producing graduates with motivation, skills, and knowledge that are appropriate to the general development of the nation (*Ibid*: 13). Nevertheless, it was recognized that, the University of Nairobi has met with a reasonable measure of success from the point of view of generating high-level manpower for the country's public and private sector. Third, the Working Party noted that although the University of Nairobi had to a rather large extent achieved some of her stated objectives, namely the preservation, transmission and increase of knowledge, the limited resources available to the university and the prevailing social attitudes meant that the University of Nairobi could achieve little by way of stimulating intellectual life or the country's cultural development (Republic of Kenya, 1981b: 14).

It was these shortcomings that the second university was (in conjunction with the existing university) to address. The Kenyan University was from now on expected to instil in the student, values which are "... right, and which will make them become responsible, self-disciplined individuals capable of living and working effectively in their own society" (*Ibid*: 36).

It needs to be noted that although the need for high level manpower, especially of the technical type, was advanced as a justification for the establishment of a second university, there was really no statistical evidence to show that such a need did indeed exist.

In order to achieve the goals, stated above, the working party noted that: all undergraduate students should be exposed to some common core courses which contain relevant materials for inculcating the objectives

stated above; the university cycle be extended from three to four years; and, that the university curriculum should aim at instilling values which promote innovation, hard work, increased productivity, the practical solution of problems, and mutual social responsibility (Republic of Kenya, 1981b:36).

Although the concerns of the Working Party appeared genuine and noble, the Working Party clearly seemed to ignore the socio-economic and political contexts in which educational institutions operate. For example, it is a tall order for any university to produce persons who are responsible and self-disciplined if these values are not practised by the wider society. Similarly, it is unrealistic to expect graduates of universities to work effectively in their own communities if no opportunities for work exist. It is equally hypocritical to expect any educational institution to foster a sense of national consciousness and unity if all that students see around them are ethnic divisions or the allocation of societal resources on the basis of one's area of birth. The extent to which universities can carry out effective training and research or produce technologically minded graduates is very much dependent on the resources available to these institutions. As we shall later show, these resources have been dwindling fast.

2. The process of initiating the 1990/1991 double intakes

In both the government and university circles, it was generally believed that given the experiences of the 1985/1986 double intakes, the second double intakes could successfully be implemented. But this was really no more than assumption based on mere faith as the harsh lessons of the 1985/1986 experiences which largely revolved round a severe inadequacy of the available university's physical and human resources were not openly made apparent to relevant senior government officials. The funds required to successfully implement the changes were simply unavailable.

Nevertheless, in anticipation of the 1990/1991 double intakes, the Senate established two committees whose responsibilities were to make recommendations on how best to implement the relevant changes. The first of these committees, the 8-4-4 senate sub-committee was established in April of 1986 (Kenyatta University, 1989b). The second one was the

double intakes facilities committee which was established in April of 1989 (Kenyatta University, 1989c).

(i) The 8-4-4 Senate sub-committee

This Committee's main responsibilities pertained to the implementation of the 8-4-4 system of education at Kenyatta University. Members of this Committee included the deans of the faculties of arts, science and education, the Director of the African Curriculum Organization Centre (ACO) and two teaching staff members in the Faculty of Education.

The Committee's terms of reference were to examine the development of the 8-4-4 education cycle in its totality; draw up a conceptual framework of the system as it applies to the university; work out a suitable curriculum for the university; recommend on university entry requirements and the number of students to be admitted; study the implications of the double intakes on the quality of education; study staffing and training needs of the university; study physical requirements facilities (buildings, equipment); consider the overall implications of the implementation of the 8-4-4 system of education for the university; and, define the role of the university with regard to Kenya's manpower needs.

Following several meetings, this Committee presented their recommendations to Senate in April 1987. These recommendations are discussed below.

(a) 8-4-4 Curriculum

The Committee recommended that the university curriculum for 8-4-4 students should be radically different from the existing curriculum. Of particular importance was the need to view the first year of study at the university as a general preparatory year for the other three years. During this foundation year, students were to be exposed to a wide range of subjects aimed at developing broad cognitive and effective perceptions. To accomplish this goal, it was recommended that students should in their first year be familiar with the general principles of development, culture, language and communication skills. It was thus recommended that subjects such as economics, philosophy, political science, aesthetics,

anthropology, social ethics and Kiswahili should be taught during the first year of university education.

At the faculty level, the Committee recommended that each faculty should draw up specific programmes for the foundation year. The emphasis was to be on both an interdisciplinary approach, complementarity across faculties and an attempt to ensure consonance with the secondary curriculum. The faculties were also requested to identify the departments which would teach the various general courses in their respective faculties as well as how to distribute the course loads across the various departments. It was further noted that faculties such as Arts should look into the possibility of establishing new departments such as Anthropology, Economics, and Political Science to service the foundation year and to give students a wider area of choice in their B.A. studies. Faculties were further asked to be prepared to allow students to take unusual subject combinations such as maths and history or physics and philosophy to enable both the creation of more rounded personalities and to cater for the interests of students who are capable in both the sciences and arts.

Having satisfied requirements for the foundation year, students would be expected to embark on their preferred areas of specialization during the second year. Meanwhile, the 'A' level group joining the university at the same time with the 'O' level group would follow the already existing curriculum.

(b) Admission into university

The Committee saw the necessity for the university to clearly map out study programmes indicating the available subjects as well as all the possible combinations. This way, potential students would be aware of what to aim for long before coming to university.

As to entry requirements, the Committee recommended that as a general guide, students taking a minimum of three subjects in their first year at university be required to have scored at least four distinctions in their 'O' level examinations and that they should have scored a distinction in the subjects they hope to major in.

(c) Staff recruitment and training

It was recognized that in view of the increased numbers, the fact that the university would have two differentially prepared students, and the need to introduce new subjects, a shortage of teaching staff would be experienced in 1990. In view of this, the Committee made two main recommendations. First, academic departments were asked to establish their staff needs. Second, for those departments likely to be hit hardest by the crisis of staff shortages, it was suggested that massive recruitment drives, both locally and overseas, be immediately mounted. Third, it was proposed that the university should utilize existing inter-university links for both the training of staff and possible use of staff from the link universities.

(d) Physical facilities

Departments were also asked to work out their physical facilities' needs, namely buildings and equipment. This recommendation was taken up by the double intakes committee, as we shall show below.

(ii) The double intakes facilities committee

The main function of this Committee was to advise the University Council on the best strategies to manage the 1990/1991 academic year double intakes. Members of this Committee included the Deputy Vice-Chancellor (Chairman), deans of faculties, the University Secretary, the Registrar, the Estates Manager, the Finance Officer, the General Manager of the defunct University Students Accommodation Board (USAB), the University Librarian and the Principal of the Jomo Kenyatta University College of Agriculture and Technology which is a constituent college of Kenyatta University. This Committee's terms of reference were to: work out the requirements for the physical facilities needed for the 1989 enhanced intake; look ahead and work out the requirements for physical facilities and other needs for the 1990/1991 double intakes; provide the Ministry of Education with estimates for the physical facilities needed for the 1989 enhanced intake; and, support the completion of a proposed science complex.

This Committee met only once during its term of office (Kenyatta University, 1990). At this meeting, several recommendations relating to the expansion of university facilities in order to cater for the additional 4,056 'O' level students were made.

(a) Tuition facilities

On tuition facilities, it was noted that since the 'O' and 'A' level groups were going to be taught separately, there was need to have facilities to cater for both groups. In this connection, the Committee recommended the construction of 10 more science laboratories to cater for all departments. In addition to these 10 laboratories, the Faculty of Education was to have two laboratories for their physical and biological sciences students.

(b) Hostel and dining facilities

On hostel accommodation, it was noted that only 2,000 of the 4,056 'O' level students joining the university needed to be catered for as four new hostels (the Nyayo Hostels) had already been constructed following the 1987/1988 double intakes. It was noted that the hostels which were to cater for the 2,000 students should be constructed by June 1990 in anticipation of the October reporting dates. On catering, the Committee similarly noted that the existing facilities needed to be expanded.

(c) Library facilities

On library facilities, a memo from the University Librarian to the Double Intakes Facilities Committee itemized the needs of the library to be: additional space for reading and shelving books and more shelving stacks; additional suitable books for the 'O' level group and the newly introduced degree programmes; more tables and chairs with the aim of increasing the library seating capacity to between 750 and 1,000; the computerization of such essential services as lending; widening of the students' entrance and exit to the library; improvement of doors and the installation of a security system; and increased stock of stationery and security detection strips; increased staff for the night and weekend shifts; and, a vehicle to transport staff after evening duties.

With regard to learning materials such as books, the Committee recommended that one way of addressing the crisis was through encouraging members of staff to have their lecture notes printed as was happening at the University of Nairobi. In this connection, it was noted that a Printery Unit should be established at the university and that relevant equipment such as computers be purchased.

(d) Other facilities

In addition to the expansion of the facilities discussed above, the Committee argued for the extension of the health unit, the students' centre, sports fields and the sewerage system. The expansion needs of the health unit were not itemized but it was clear that more medical personnel, medicines, consultation and drug dispensing rooms and other facilities such as laboratories, dressing rooms and toilets were going to be needed. As with the health unit, the Committee noted only that the student centre needed to be expanded without itemizing its actual needs. But again one could immediately think of the need to expand the cafeteria and entertainment facilities (which currently cannot cater for more than 100 students at any one sitting) and the establishment of other facilities such as banking and communication services.

The Committee did also not itemize the needed additional sports facilities. However, there is a clear need to increase the number of playing fields. As an example, Kenyatta University has only two sports fields which are used for both soccer and track events, one gymnasium, three basketball fields, two volleyball courts, two tennis courts and one squash court. These facilities were already in use when Kenyatta University was a secondary school and no new ones have been constructed since. The situation is even more pathetic with regard to indoor sports facilities. As an example, there are only two table tennis facilities in the whole university.

On sewerage, it was noted that following the 1987/1988 double intakes, the existing sewer line was constantly blocked. In addition to the increased numbers of students, the sewerage system was said to be blocking because the original design is such that the nine inch sewer line joins a narrower six inch one. It was recommended that work on the reconstruction of the sewer start immediately.

(e) Project implementation unit

Members of the Committee were also concerned about the fact that it is quite usual for various committees of Kenyatta University to make recommendations that were never acted upon. In view of this, the Committee expressed the need for the establishment of a project implementation unit for monitoring on-going university projects and report to the various committees on progress made. The Committee added that such a unit needs to be run by a full-time employee who would mainly follow-up on projects related to the suggested double intake programmes.

(f) The budget estimates

The Double Intakes Committee estimated that K£31,962,914 (a Kenyan £ is equivalent to .3 of a US\$) would be required from the government to effectively address the expansion needs described above. However, for the 1990/1991 academic year, the Government of Kenya was only able to provide K£7,110,000 (22 per cent of actual need) to meet the development needs of the institution (see *Table 3.4*). As we shall later show, this turned out to be the major handicap to the successful implementation of the management changes associated with the double intakes. In fact, some of the changes implemented with the double intakes did not originate from the recommendations of this Committee but were more a reflection of management by crisis in its most extreme form.

Chapter III

The process of initiating the 1990/1991 double intakes

Unlike the primary schools which had very little time to plan their adjustment from the 7-4-2-3 school cycle to the 8-4-4 cycle, universities had a great deal of time to plan as the new system was officially launched in 1984. Yet 1990 seemed to have caught all the four public universities almost totally unprepared to accommodate the double student intakes. In the next few pages we trace the process of the implementation of the 1990/1991 double intakes at Kenyatta and describe the process of planning the administrative and financial related changes which resulted and the consequent curriculum reform process.

1. Planning for the double intakes

In preparation for the double intakes, Kenyatta University authorities recommended changes related to the semesters system, time-tabling of classes, students' services and teaching (Kenyatta University 1989a: 7-10).

(a) The semester system

The first semester related change was that the duration of the semester was reduced from 16 to 14 weeks (12 weeks of instruction and two for the conduct of end-of-semester examinations). This change was necessitated by the need to reduce the academic staff's teaching load from 42 (14 weeks) to 36 (12 weeks) contact hours. Each unit is allocated

three contact hours per week. Given that no tutorials were conducted for most units during the 1990/1991 academic year, this change had the effect of limiting even further opportunities for students to learn from their lecturers. Moreover, even the 36 contact hours have not been easy to achieve in view of the fact that teaching never really starts until the second week into the semester despite the recommendations by Senate that teaching should start on the first day of semester.

Second, the academic year was lengthened from two to three semesters (see *Figure 1*). Thus, although the academic year originally ran for two semesters from October to May, a third semester was included in the 1990/91 academic year. In this year, the first semester had to start on August 6 1990 as opposed to early October, and as is clear from *Figure 1*, a third semester was inserted between April and July 1991 in order to maximize the use of available facilities and time.

Third, the semester schedule was organized in such a way that at least one group of students (first, second or third years) would be on long vacation during each of the three semesters (see *Figure 1*). Thus, for the first semester starting on August 6 1990, the 'O' level group was out of the university. The first semester for the 'O' level group started on November 19, 1990, and ended on March 23, 1990, during which time the 1st year 'A' level group were on long vacation. During the semester beginning on April 1 to July 6, 1991, it was the turn of the 3rd year to be on long vacation while 2nd year students were also to be away from the university on teaching practice.

(b) Time-tabling

During the 1990/1991 academic year, the Senate also recommended that the teaching time-table be organized in such a way as to accommodate more classes. First, classes were to be conducted continuously from 07:00 to 20:00 hours, Monday through Friday. Second, lectures were scheduled for Saturday mornings (07:00 to 12:00 hours). Third, Senate recommended that there should be a limit on the possible number of subject combinations. As an example, geography could previously be combined with almost all the other subjects offered at the university, thus making it very difficult for the timetablers to come up with a convenient schedule for all the students taking this subject.

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double intakes*

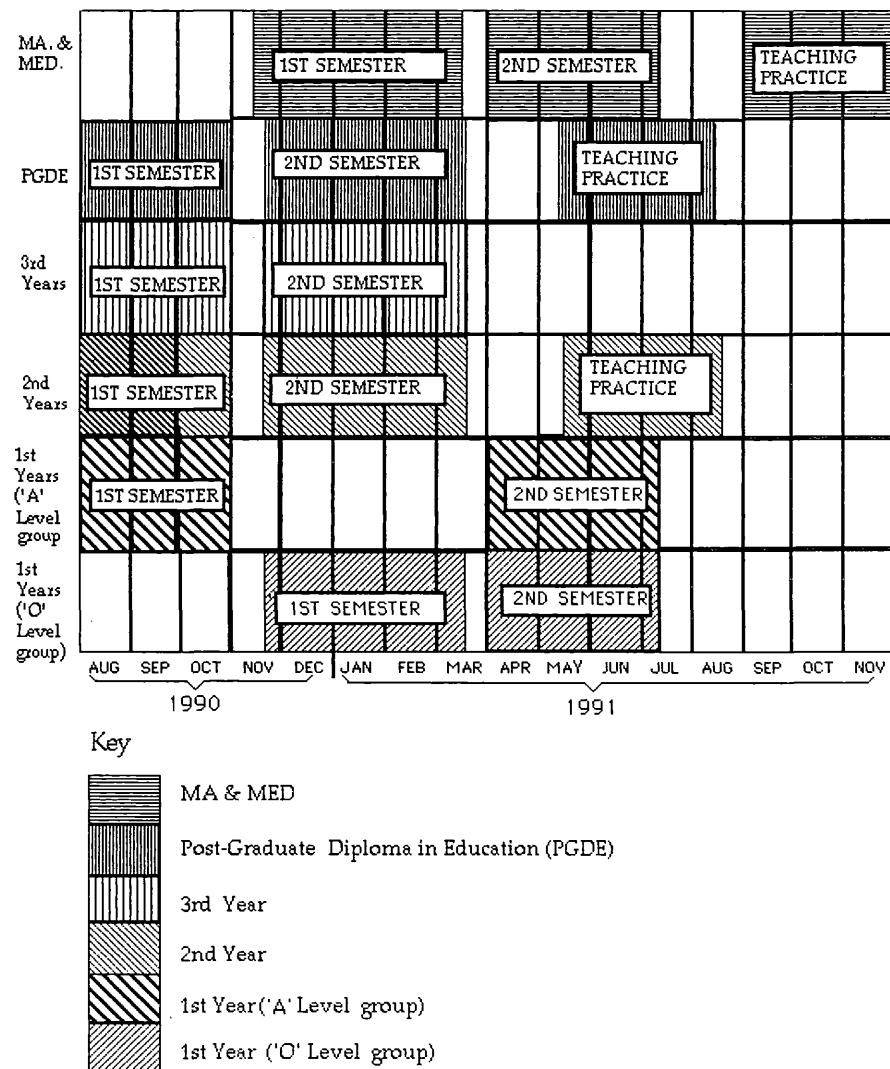


Figure 1. 1990/1991 Semester schedule

(c) Student services

Several changes were to be made with regard to student services. First, more time was allowed for meal times to reduce congestion in the dining halls and to allow for more flexibility in time-tabling. Thus, breakfast was to be served from 06:00 to 09:00 hours, lunch from 11:00 to 15:00 hours and dinner from 17:30 to 20:30 hours. Second, more hostels and dining facilities were constructed. Third, more students were encouraged to be non-residents.

(d) Teaching

Just before the 1990/1991 double intakes there was an acceleration of staff recruitment efforts (see *Table 4.3*). In addition, members of the teaching staff were asked to start teaching on the first day of semester. More demands were also made on academic staff members, many of whom taught throughout the 1990/1991 academic year. In principle, teaching staff were to be compensated monetarily for additional teaching hours as well as lost annual leave where this happened to be the case. However, this policy has not been implemented.

2. Administrative and financial related changes

(a) The admissions process

One of the main problems facing the Universities Joint Admission Board (JAB) was how to balance the number of 'A' and 'O' level graduating students to be admitted into the public university system. A selection criteria perceived to be fair by both students and parents had to be devised. Following a series of JAB meetings and consultations with Ministry of Education officials, it was agreed that 8,500 and 11,500 'O' and 'A' level students respectively should be admitted into the university system.

Scores in the 'A' and 'O' level examinations were used as the sole criteria for selecting those to join the university. For the 'A' level group, cut-off points for admission were set at 9 points for science students and 12 points for the arts students. 'A' level points are scored as follows: A = 6; B = 5; C = 4; D = 3; E = 2 and a Subsidiary Pass = 1 point. For

the 'O' level group, the cut-off points were set at an average score of B minus (B-) in a total of eight subjects. It needs to be noted that the 'A' level cut-off points of 9 and 12 for science and arts students respectively, represented a shift from the previous requirement of 8 (science) and 10 (arts) respectively, for prospective university students. The main reason for raising the respective cut-off points was to allow the 'O' level graduates more places in the public universities. However, following complaints from parents and students, the minimum admission requirements for the 'A' level students were reduced to 10 points for arts majors and 8 points for science majors. Those for 'O' level students were reduced from an average score of B- to C+ respectively (Kigotho, 1990; Kipsongok, 1990). For the 'O' level students, it proved difficult to go by the criteria recommended by the Kenyatta University 8-4-4 Senate Sub-Committee, namely that, entering students should score a minimum of four distinctions in their Kenya Certificate of Primary Education (KCSE) examination.

(b) Student enrolments

Table 3.1 gives a breakdown of student enrolments at Kenyatta University by degree and year of study for the years 1989 to 1991. Several conclusions could be drawn from a study of this table. Overall, it is clear that the double intakes of 1990/1991 were double in the true sense of the word as total enrolment figures for first year students shot from 1949 in 1989 to 4,571 in 1990, which represents an increase of 135 per cent. The 1990/1991 first year enrolments were also close to double those of the following year.

It is also apparent from the table that over the two years (1989 to 1991), some areas of study, most notably Bachelor of Arts (general), Bachelor of Commerce, and the Bachelor of Education (arts) experienced the highest growths in enrolments at 94, 184 and 8 per cent respectively. The main reason for this development is that given an expansion situation which was not particularly well planned, university authorities found it easy to enrol students in departments such as the arts, which do not call for a lot of capital investment with regard to, say, the purchase of equipment or construction of physical science laboratories.

Table 3.1 First degree student enrolments at Kenyatta University by programme of study and academic year of study (1989-1991)

Programme of study	Academic year and year of study				Academic year and year of study				Academic year and year of study			
	1989/1990				1990/1991				1991/1992			
	1st Year	2nd Year	3rd Year	Total	1st Year	2nd Year	3rd Year	Total	1st Year	2nd Year	3rd Year	Total
Bachelor of Arts (General)	480	476	356	1 312	1 277	450	465	2 192	816	1 277	450	2 543
Bachelor of Arts (Fine Arts)	12	5	15	32	26	7	5	38	17	26	7	50
Bachelor of Education (Arts)	895	1 121	1 779	3 795	1 999	1 003	1 091	4 104	1 082	1 999	1 003	4 084
Bachelor of Educat. (Science)	252	247	531	1 030	515	270	257	1 042	294	215	270	1 079
Bachelor of Education (Home Economics)	57	82	116	255	132	64	80	276	96	132	64	292
Bachelor of Educat. (Primary Option)	**	**	**	**	**	**	**	**	**	**	**	**
Bachelor of Science (General)	189	143	180	512	476	154	140	770	296	476	154	926
Bachelor of Commerce	64	42	*	106	146	63	37	246	92	146	63	301
Grand total	1 949	2 116	2 977	7 042	4 571	2 011	2 075	8 657	2 693	4 271	2 011	9 275

Source: Republic of Kenya (1992). Ministry of Education, University Education Section, *Annual Report, 1987-1991*, Nairobi.

Note: * Degree course not started.
** Data not available.

(c) *Proportions of 'A' and 'O' level students enroling at Kenyatta University in the 1990/1991 academic year*

The 1990/1991 double intakes could be further split according to the category of secondary education attained (i.e. 'A' or 'O' levels). *Table 3.2* gives this breakdown. From this table, several deductions can be made. First, the total number of 'A' and 'O' level students admitted to Kenyatta University this year was roughly the same, for these stood at 2,290 and 2,281 respectively. However, if one examines intake trends in all the four Kenyan public universities and in view of the fact that there were in Kenya 41,895 'A' level leavers of whom 11,687 were admitted, and 131,805 'O' level leavers of whom 8,867 were admitted, thus only 7 per cent of the 'O' level leavers gained entry into the public universities compared to 28 per cent of their 'A' level counterparts. The 'A' level leavers were thus significantly over-represented in the university system in general and Kenyatta University in particular (Ndirangu, 1990:1).

Second, for both the 'A' and 'O' level groups, male students enroling at Kenyatta University out-numbered their women counterparts. The respective percentages of the 'A' and 'O' level female students enroling at Kenyatta University in 1990/1991 were 43 and 31 respectively. This implies that, at least for Kenyatta University, the new 8-4-4 system is not any more favourable to increased women's participation in university education than the previous 7-4-2-3 system. Females are even more under-represented in the other three public universities which offer more professional courses than Kenyatta University. This is because, for a variety of reasons, female students generally do not perform as well as their male counterparts in university selection examinations, thus, greatly limiting their enrolment in these programmes, especially the science-oriented ones (Hughes and Mwiria, 1989). Third, for both groups of students ('A' and 'O' levels), at Kenyatta University, women enrolled mainly in the arts-based courses and in home economics. Thus even when more women appear to be getting into university, the majority tend to enrol in the less economically rewarding fields of study such as the bachelor of arts general degree programmes.

Finally, the faculty enroling the most students was education. This is obviously not surprising given that this is the most established faculty at Kenyatta University.

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Table 3.2 Double intakes at Kenyatta University by category of secondary education attained (1990-1991)

Degree of study	Group of students						Total	
	'O' Levels (8-4-4)			'A' Levels (7-4-2-3)				
	M	F	T	M	F	T		
Bachelor of Arts (General)	490 (71)	201 (29)	691 (100)	396 (68)	190 (32)	586 (100)	1 277	
Bachelor of Arts (General)	12 (86)	2 (14)	14 (100)	10 (83)	2 (17)	12 (100)	26	
Bachelor of Commerce (B.Com)	61 (78)	17 (22)	78 (100)	56 (82)	12 (18)	68 (100)	146	
Bachelor of Education (Arts)	595 (65)	322 (35)	917 (100)	456 (42)	623 (58)	1 082 (100)	1 999	
Bachelor of Ed (Home Econ)	4 (5)	77 (95)	81 (100)	1 (2)	50 (98)	51 (100)	132	
Bachelor of Education (Sc.)	189 (76)	59 (24)	248 (100)	183 (69)	84 (34)	267 (100)	515	
Bachelor of Science (General)	227 (90)	25 (10)	252 (100)	198 (88)	26 (12)	224 (100)	476	
Total	1 578 (69)	703 (31)	2 281 (100)	1 303 (57)	987 (43)	2 290 (100)	4 571	

Source: Kenyatta University, (1992). Registrar's Department.

Note: Figures in bracket are percentages.

(d) *Overall impact of the double intakes on the population of students at Kenyatta University*

As expected, the total student population at Kenyatta University increased with the double intakes of 1990/1991 and did so again in 1991/1992. However, overall student enrolment at Kenyatta University

declined to 8,862 in 1992/1993. This is largely a result of the reduction in first year enrolments due to pressure from the World Bank. The World Bank argument has been that public universities should enrol only those students who can be adequately catered for by the available scarce resources. This is shown in *Table 3.3*.

The table also shows that the post-graduate student population declined by 51 per cent from 336 in the 1988/1989 academic year to 163 in the 1990/1991 academic year. This trend continued in 1991/92 and 1992/93. The main explanation for this is that the number of scholarships available for the masters degree programmes was significantly reduced because of lack of funds.

The increases in student numbers that took place in 1990/1991 of necessity exerted tremendous pressure on the available physical and human resources at Kenyatta University. The obvious response of the university was to seek increased funding from the government. How the government responded is discussed in the following section.

(e) The funding situation

In a previous section of this report we indicated that the requirements of the double intakes alone called for an additional grant of K£31,962,914. In *Table 3.4* below, we give estimates of government expenditure on Kenyatta University for the years 1985/1986 to 1992/1993.

From this table, it can be seen that there was an overall increase in estimated government expenditure from roughly K£33.2 million in 1989/1990 to K£41.08 million in 1990/1991. The observed increase of K£7.87 million was, however, far from enough to meet the demands of the double intakes. It is also clear that most of the increase in government allocation went on recurrent expenditure and the student loan scheme as opposed to development expenditure. While in 1990/1991 total recurrent expenditure stood at K£12.5 million, development expenditure stood at K£5.23 million in 1989/90 and K£7.12 million in 1990/1991.

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Table 3.3 Student enrolments at Kenyatta University by course of study (1988-1991)

Course of study	1988/89	1989/90	1990/91	1991/92	1992/93
Bachelor of Education (Arts)	3 481	3 843	4 093	4 084	4 026
Bachelor of Education (Sc.)	1 010	1 041	1 042	1 079	1 060
Bachelor of Ed (Home Ed)	260	260	276	292	303
Bachelor of Arts (Fine Arts)	25	31	38	50	37
Bachelor of Arts (General)	916	1 265	2 192	2 543	2 161
Bachelor of Science (General)	388	470	770	926	773
Bachelor of Commerce	42	103	246	301	292
Bachelor of Environmental Ed.	-	-	-	-	58
Post-Graduate**	292	336	163	137	152
Total	6 414	7 349	8 820	9 412	8 862

Source: Kenyatta University, (1992). Registrar's Department.

Note: ** Includes students pursuing the post-graduate diploma in education.

Thus, despite the increased enrolments and the great demand for the construction of physical facilities, the level of government subsidy to Kenyatta University did not increase to match them. It should, however, be noted that many essential facilities had already been constructed between 1987 and 1989 following the first double intakes of 1987/1988. Although it is the case in most African universities that recurrent expenditures take the greatest share of total government subventions, the picture presented by the Kenyatta University allocations is rather worrying in view of the development work that was called for by the introduction of the double intakes.

As we shall show in a subsequent section of this paper, such an inequitable allocation of government resources across the various programmes had some serious negative consequences for the smooth running of Kenyatta University, especially in relation to teaching programmes and other essential services. Whether or not Kenyatta University coped with the difficulties resulting from inadequate funding

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and how these scarce funds were managed is the subject of the next section.

Table 3.4 Kenyatta University estimates of government expenditure before, during and after the double intakes (1989/1987 – 1989/1990 and 1990/1991 – 1992/1993)

Item	Before		During		After	
	1986/87	1987/88	1989/90	1990/91	1991/92	1992/93
Recurrent Expenditure						
Personal emoluments	3.84	4.00	7.00	7.50	11.18	11.63
Gratuity and pension	0.31	0.42	1.45	1.36	1.20	1.20
House allowance	0.36	0.65	1.10	1.50	1.40	1.40
Teaching practice	-	0.03	0.05	0.08	0.11	0.11
Library expenses	0.05	0.05	-	0.12	0.12	0.12
Staff training	0.05	0.06	0.10	0.01	0.01	0.01
Post-graduate programme	0.15	0.24	0.24	0.38	0.28	0.28
	0.85	0.95	1.01	1.20	4.08	2.07
Total	5.51	6.40	10.95	12.15	18.47	16.82
University student loan scheme						
Bank charges	0.01	0.02	0.03	1.10	0.30	0.30
Loan to students	7.00	10.00	14.00	18.19	19.11	26.69
Loan to student (overseas)	0.05	0.06	0.06	0.06	0.07	0.01
Loan to student (food)	-	-	2.94	3.46	3.70	3.22
Total	7.06	10.18	17.03	21.81	23.18	25.22
Development expenditure						
Contracted professional services	0.10	0.10	1.34	0.50	0.50	0.10
Purchase of equipment	-	0.05	0.01	0.04	0.04	0.12
Construction of buildings	0.32	0.91	3.87	4.89	6.26	6.41
Grants – tuition	-	-	-	1.38	0.15	-
Students centre	-	-	-	0.15	0.01	0.01
Library	-	-	-	0.15	0.15	-
Maintenance works	-	-	0.01	0.01	0.01	-
Total	0.42	1.06	5.23	7.12	7.12	6.64
Grand total	12.99	17.64	33.21	41.08	48.77	48.68

Source: Republic of Kenya (1985/1986 – 1992/1993). Estimates of government expenditure (Ministry of Education).

Note: No estimates were made.

(f) *Other relevant actions taken*

Other steps taken by Kenyatta University authorities to make the double intakes feasible include hurried recruitment of teaching staff and the introduction of the three semester system. These measures are discussed in detail in the section on the management of the double intakes.

3. Implementation of curriculum changes

In accordance with the recommendations of the Presidential Working Party on the establishment of a second university (Republic of Kenya, 1981b) and the Kenyatta University 8-4-4 Senate Sub-Committee, attempts have been made to introduce the 'O' level students joining university to areas of study that would reflect the reform goals. The most notable of these has been the introduction of two compulsory courses, namely, development studies and communications skills for 'O' level undergraduate students during their first year, referred to as the foundation year. In addition to these two courses, students in their first year have to take a few other compulsory courses which relate to their general areas of interest. In sociology, for example, students have to enrol in a course on basic social statistics in their first year and in the Kiswahili department, students have to take cultural studies.

In addition to the compulsory core courses for all students taken during the foundation year, and the compulsory courses for the various departments, attempts have also been made to introduce courses and programmes with a practical bent such as research methods, environmental education, statistics and evaluation and the dissertation project. These changes affected only the 'O' level group while the curriculum of the 'A' level group remained very much the same as it has over the years.

The curriculum reform process and the implementation of the various recommendations appear to have been rather hurriedly done. As an example, no serious evaluation of the primary and secondary school syllabuses was carried out to ensure that there was both a match between what was taught at these various levels with what was taught at the university or to avoid a duplication in what was taught at the various school levels, especially the secondary system and the university.

The crisis situation in which the 8-4-4 university syllabus was prepared and implemented is also exemplified by the fact that Senate was still deliberating on the syllabus long after the students had reported on campus (Kenyatta University, 1990) and the fact that lecturers to teach the newly introduced courses were hurriedly recruited and with many of them being trained on-the-job. Soon after the launching of the communication skills programme, for example, most of those lecturers recruited were not only relatively junior but they also were not well equipped to teach this subject. Thus, a substantial number of these lecturers were airlifted to Britain for some crash training programme, courtesy of the British Council. Similar problems have been experienced by the Department of Development Studies, which has only one Ph. D holder out of a staff population of ten. Their main preoccupation currently is how best to train the staff they have without having to lose them for any long periods of time for this would affect the smooth running of their teaching programmes. For both development studies and communication skills, there is also a dire shortage of relevant reference materials (Personal interview with teaching staff: 1992).

With regard to the 8-4-4 curriculum reforms, it also needs to be pointed out that, for the most part, attempts to orient the syllabus to the environments in which students have to operate outside of the university have been rather limited. In addition to the fact that there are very few courses which address this need, those that do such as communication skills seem to have the wrong focus. This course is taught in English and students are taught how to communicate in English. One would have expected more emphasis on Kiswahili, this being the language in which a substantial proportion of Kenyans communicate. It is also the case that, as with the traditional 'A' level syllabus, the bulk of the 8-4-4 syllabus remains rather theoretical in orientation.

4. Conclusion

The process of implementing the double intakes described in this chapter suggests that the necessary planning was inadequately done. Even after the number of students supposed to be the optimum capacity for Kenyatta and other public universities had been admitted, public demand forced the institutions to increase student numbers. Because of such

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pressures, the criteria for selecting entering students as recommended by the 8-4-4 Senate Sub-Committee was not followed.

In view of the limited resources and time made available for implementing the double intakes, only modest gains were made in the area of curriculum reform as evidenced by the introduction of compulsory courses in the foundation year, namely development studies and communication skills as well as a few other courses with a practical bent in some of the departments. However, the bulk of the 8-4-4 curriculum remains highly theoretical and does not really prepare products of the university to fit in their respective post-graduation environments any more than did the pre-double intakes curriculum for 'A' level students who studied in Kenyan universities before the implementation of the 8-4-4 system.

Chapter IV

The management of the double intakes

To effectively manage the 1990/1991 double intakes, Kenyatta University authorities expanded teaching and accommodation and experimented with several innovations. The most notable of these included: a reorganization of teaching methods; the use of the whole year (with no breaks) for teaching changes in the recruitment and promotion criteria of academic staff members as well as the introduction of financial and material incentives to help retain such staff; and, the introduction of mechanisms aimed at making university examination more efficient. These are discussed below.

1. Expansion of facilities

Although attempts were made to expand lecture theatres, science laboratories, libraries and student hostels, what was done still fell far short of the demand.

(a) Lecture rooms

Table 4.1 demonstrates the extent of the expansion of lecture theatres following the 1990/1991 double intakes. As is clear from this table, although the number of lecture rooms increased by approximately 200 per cent following the double intakes, such an expansion was not commensurate with the increased student enrolments. More importantly, the type of lecture rooms for which there was the most demand, namely rooms which could accommodate more than 500 students, increased by only one

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whereas the number of classes enrolling more than 500 students during any given semester rose sharply from five in 1989/1990 to 16 in 1990/1991. Even for classes enrolling 100 students or fewer, there remained an acute shortage of lecture rooms despite the noticeable increase in such rooms during the 1990/1991 academic year.

Table 4.1 Lecture room capacities (1989/1990 and 1991/1992) before and after double intakes

Lecture room capacity (No. of students)	Number of lecture rooms		No. of rooms needing to be used first semester (1991/1992)
	1989/1990	1991/1992	
Under 100	19	39	195
100 – 199	15	21	29
200 – 299	5	16	12
300 – 399	3	6	11
400 – 499	-	-	4
500 – 599	1	2	12
1,000 and over	2	2	4
Total	45	86	267

Source: Kenyatta University (1992). Registrar's Department.

Due to the lack of lecture rooms of adequate size, the existing facilities have been characterized by serious congestion, with some students being forced to sit outside the classroom and listen to their lectures through the windows. Under such circumstances, it becomes almost impossible to have them interact meaningfully with their teachers or to get them into the lecture rooms quickly enough to ensure that teaching time is not lost. How teaching staff have adjusted to the shortage of lecturer rooms of adequate size is taken up in a later section of this chapter.

(b) Science laboratories

In a previous section of this paper we noted that at least 10 more science laboratories needed to be constructed to cater for the increased science student population following the 1990/1991 double intakes. The government reacted to this need by pledging some funds for the construction of a science complex. Because these funds have, however, not been released as required, this complex is still not ready for use except for 12 of the lecture rooms which accommodate 100 students or fewer.

Thus, although the number of students enrolled in the sciences has more than quadrupled since the existing laboratories were constructed, they all have to depend on the available facilities. The problem is, however, not just one of laboratory space for the conducting of experiments but also one of a lack of necessary equipment even in the few available laboratories. Similarly, students had very limited opportunities to benefit from practical field trips in the absence of adequate transportation facilities. From the point of view of teaching, such shortages have meant that teaching staff are forced to lecture about practical applications as many students do not have the opportunity to test the applicability of the theoretical knowledge learned. Needless to say, such a situation has important implications on the quality of Kenyatta University education.

(c) Library space

In response to the double intakes, the university authorities sought assistance from donors to expand the main university library, but were unsuccessful. In response to this disinterest, the Kenyan Government took up the challenge but due to a continued failure to pay the contractors, the expanded library structure is far from ready for use by students. As a result, the same problems which characterize the lecture theatres also hold true of the library system, whose actual seating capacity is 600 students but which now has to serve a student population which is in excess of 9,000.

The main consequence of the limited capacity of the Kenyatta University library has been serious congestion characterized by the use of every available space by students (desks being used as chairs, use of walking space for reading) especially during the examination season. At the same time, such limited capacity has resulted in a situation whereby

a majority of students have given up using this facility altogether, while others have resorted to the tearing of key ages out of reference and other materials. This situation has been made worse by the fact that the Kenyatta University library system still remains very centralized. The few departmental libraries which exist have either been converted into offices or classrooms or have not experienced any real expansion.

(d) Students' accommodation

Table 4.2 summarizes the state of student accommodation at Kenyatta University before and after the double intakes. Before the double intakes, the normal accommodation capacity of the existing students' hostels was 2,252 (35.1 per cent) students out of a total number of 6,414. Following the double intakes, despite the expansion of student bed space by roughly 44 per cent, the available hostels can still only accommodate 3,248 (34.5 per cent) comfortably out of a total student population of 9,412.

As the table shows, however, Kenyatta University hostels actually accommodated more than their intended capacity. This is because university authorities have opted to introduce double-decker beds, in those rooms which are capable of containing such beds, and because some entertainment rooms have been converted into student bedrooms. A few other students are housed at the nearby Moi International Sports Complex.

Students who could not be accommodated in the students' hostels were asked to seek alternative accommodation elsewhere. In fact, a non-resident students' unit was created within the students' counselling unit to assist those students living outside the campus (Kenyatta University, 1989). Although such a policy is commendable even as a long-term goal of eventually encouraging a majority of the students to live off campus, it has several drawbacks. First, most of the residential areas neighbouring Kenyatta University are rather unsafe. Second, because of insecurity, most non-resident students are not able to use the university library facilities at night, thus putting them in a disadvantaged position vis-à-vis the residential students.

Congestion in hostels has serious negative consequences for the well-being of students. Such a situation does not only pose health (poor sanitation) and security (fire, etc.) risks for the affected students but it also makes it impossible for students to conduct independent study effectively.

This is particularly serious in view of the fact that available lecture rooms and the library do not help to make up for such deficiencies.

Table 4.2 Student accommodation at Kenyatta University, before and after the double intakes (1988 and 1991)

Hostels	Accommodation capacity (No. of bed spaces)	
	Before the double intakes (1988/1989)	After the double intakes (1991/1992)
11 Old hostels	2 252	2 252
New pre-fabricated blocks	*	324
New nyayo blocks	*	672
Total hostels capacity	2 252	3 248
Students actually accommodated	5 092	8 657
Total students seeking accommodation elsewhere	1 322	755
Total students	6 414	9 412

Source: Kenyatta University (1991). Minute records of senate planning and development committee of February 1988 and June 1991.

Note: * Not yet constructed.

(e) Students' dining services

The double intakes also introduced complications in the administration of dining services with congestion in the dining halls being the most acute problem. Thus, although the normal capacity of the catering facilities is 3,350, the total number of students who have to take meals in these facilities is 7,200 which means that they are serving a population more than double their actual capacity. The congestion of the double intakes of 1987/1988 when students would start crowding at the dining

halls up to thirty minutes before opening time (Makokha, 1990:16; Kenyatta University, 1991) intensified with the 1990/1991 double intakes.

The double intakes of 1990/1991 introduced other problems. Because of the large number of students, many of them could eat in any dining hall of their choice, without being detected, resulting in a situation whereby the kitchen staff could not determine with any accuracy how much food to cook in any one kitchen. In some kitchens food would run out while some students were still in the queue, thus necessitating a hurried transportation of food from one kitchen to another.

Another problem posed by the large number of students was that even the non-resident students who were not expected to eat in the residential students dining halls would steal into the dining halls without paying. This meant that the university was spending money on students who had not been taken into account by the respective university budget. Finally, both the available cooking personnel and cooking equipment were far from adequate to cater for the double student population.

To tackle these problems the university authorities took several measures. The most notable of them is perhaps the introduction of the meal cards in 1990/1991. These cards were meant to reduce catering and accommodation expenditure by catering only for bona fide resident students; reduce congestion and delays in the kitchens by introducing cards of different colours depending on the kitchens to which specific students were assigned; enable the catering department to improve the quality of food by serving fewer students and estimating their number more accurately; enable bona fide resident students to get the full benefits of their loans, and, to obviate the need for excessive additional catering staff. Initially, students resented and resisted the introduction of the cards but later complied.

The second measure taken to address the kitchen crisis in 1990/1991 was the purchase of additional cooking equipment and the recruitment of more kitchen personnel. With regard to kitchen equipment, wood stoves were introduced in one of the large kitchens and the numbers of cooking pans and trolleys were increased. Likewise, 48 more kitchen staff, the majority of whom were cooks, kitchen assistants and dining hall attendants, were recruited.

The third measure taken to ease congestion in kitchens was the lengthening of the duration of meal times. Breakfast was to served

between 06:00 and 09:00, lunch between 11:00 and 15:00 and dinner between 17.30 and 20.30.

(f) Changes in other departments

We noted at the outset that the Double Intakes Committee made recommendations regarding the expansion of the health unit, the students' centre, sports field and the sewerage system. Of all these departments, only the health unit and the sewerage system have been improved. The major change at the health unit has been the separation of student and staff services and the recruitment of medical staff. The separation of student and staff services necessitated the construction of an additional wing comprising, among others, six more consultation rooms as well as a separate staff medical records office. Likewise, the university increased the number of medical staff from 21 in 1989 to 28 in 1990, constructed a small in-patients facility and purchased two new ambulances. These improvements have, however, failed to completely arrest the congestion problem at the health unit especially during the examination period.

2. Changes in teaching approaches

With the double intakes of 1987/1988, several changes were made in teaching approaches in order to effectively deal with the increased student enrolments. These changes which also apply to the 1990/1991 double intakes included most notably the introduction of a three-semester academic year; adjustments in the teaching of large classes and to the timetable.

(a) The shift system and the three-semester year

The double intakes of 1987/1988 and 1990/1991 academic years have led to the elimination of the long university vacation. This has been necessitated by the shift system in the use of university facilities and personnel. Under this system, the 'A' level group of students stay out of the university when the 'O' level group is in session and vice versa. This means that most academic staff have to teach throughout the year without any break (Kenyatta University, 1987:9), though heads of departments have been asked to ensure that their respective members of staff have at

least a month's leave during each year (*Ibid*: 10). This has, however, not eased the burden on staff because due to the fact that there have been two double intakes between 1987 and 1990, most teaching staff members have had to teach continuously since 1987 and will continue doing so until the 'A' level batch of the second group of the double intakes graduates from the university in 1994.

Demanding so much more from teaching staff without any increase in their compensation has had the effects of lowering the morale of academic staff and has at the same time greatly minimized their ability to conduct meaningful research. The net result is that some of the most capable staff have left Kenyatta University to pursue more attractive options elsewhere.

The shift system has also created another problem, namely the lengthening of the time it will take both the 'A' and 'O' level groups to complete their degree programmes (probably by an extra year) as the respective groups are sometimes required to stay out of the university system for periods extending up to six months while one of the groups is in session. In fact, in 1992, the 'A' level group sued Kenyatta University for seemingly lengthening their stay in the university beyond the normal period required to obtain a degree (normally three years) (*Daily Nairobi*, July 17:3). Although students lost this suit, their complaints regarding the period it will take them to complete their studies at Kenyatta University was a genuine one. Long periods of stay on campus are not only expensive for both the public and the individual students but they also reduce the graduates' employment prospects in an economy where job appointments are rapidly shrinking. Student internship programmes with the public and private sector may be one way of ensuring that the students are gainfully occupied during their long absence from university.

(b) Adjustments in the timetable

As indicated earlier, one of the major problems faced by the university with the double intakes was lack of lecture rooms to cater to the increased student enrolments. One way of alleviating this constraint is through better use of the available facilities. The university authorities responded to this by establishing a Timetabling Committee whose terms of reference mainly revolved around the preparation of a central timetable

that would make possible the optimum use of available lecture rooms and science laboratories.

Following recommendations of this Committee and Senate, it was agreed that more classes be timetabled during those periods of less intense use of already existing facilities such as 07:00 to 08:00, 13:00 to 14:00, 19:00 to 20:00 and on Saturdays, and that the range of possible subject combinations which students could undertake be reduced to allow more flexibility in timetabling (Kenyatta University, 1989). The latter requirement seemed to contradict the 8-4-4 curriculum goal of allowing students to enrol in a variety of subject combinations.

The Timetabling Committee's task has not proved to be an easy one. First, as revealed in *Table 4.1*, the lecture rooms that can accommodate classes which comprise of 500 students or more are rather few. Second, for certain subject combinations, there are not enough teaching staff to ensure the optimum use of available space. Third, when the range of subject combinations is reduced, many students are unable to pursue their preferred study areas. Fourth, scheduling of classes at meal times, nights and weekends also has implications for the smooth functioning of dining facilities and limits on the amount of free time available to students for either independent work, field trips and extra-curricula activities such as club activities and sporting events.

(c) Handling of large classes

Adjustments in the timetable was only one of the strategies employed to deal with the number of students enrolled at Kenyatta University following the double intakes. The others were the discontinuation of tutorial discussion groups and the splitting of those classes enrolling 800 or more students into several groups. This has necessitated repeating the same lecture by lecturers to up to four different groups of students and the use of the public address system by lecturers teaching in those lecture rooms not particularly well designed for teaching purposes.

The discontinuation of tutorials has had particularly serious negative consequences for effective learning given both the dramatic increases in student numbers, the inadequate learning facilities provided by the available libraries and science laboratories, the poorly stocked Kenyatta University bookshop, as well as the limited opportunity for independent learning which is provided by overcrowded student hostels.

Likewise, teaching strategies such as those involving a repeating of the same lecture to several groups of students or the use of poorly designed public address systems are particularly taxing for academic staff. Repeating the same lecture is not only boring but is also a somewhat unjustified use of expensive time. In addition, public address systems are not available to all those lecturers who need to use them, and as a result, lecturers have to engage in shouting, which leaves those who have to go through the exercise several times within a given day, too physically exhausted to be able to engage in other important tasks such as research.

3. Staff related changes

Three main features characterized the 1990/1991 double intakes insofar as the teaching staff are concerned. These are accelerated recruitment, relaxed promotion criteria and the introduction of incentives to help retain available staff.

(a) Staff recruitment

Table 4.3 summarizes the growth of the academic staff by rank before and after the double intakes. It is clear from this table that there has been a significant growth in number of teaching staff between 1985 (when the first double intakes were first anticipated) and 1987/1988 when Kenyatta University accepted two groups of students for the first time. During this period the population of teaching staff grew from 322 to 416 which represents a rise of 29 per cent. Similarly, in anticipation of the 1990/1991 academic year double intakes, the number of teaching staff rose from 416 in 1987/1988 to 682 in 1990/1991, representing an increase of 64 per cent in four years. In fact, between 1989 (the year preceding the second double intakes) and 1990 there was a 53 per cent rise in the number of teaching staff.

Most of the growth has revolved around the junior (tutorial fellows and graduate assistants and middle-level ranks (lecturers) although there appears to have been a steady rise in the number of staff members of the ranks of senior lecturer and professor.

Table 4.3 Growth of Kenyatta University academic staff by rank in anticipation of the double intakes (1985/1986 – 1990/1991)

Academic year rank	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91
Professor	7	7	7	8	7	17
Associate professor	20	18	12	18	17	15
Senior lecturer	71	77	88	114	88	94
Lecturer	123	126	148	241	148	234
Assistant lecturers	33	42	37	4	-	1
Tutorial fellows	63	69	103	56	153	215
Graduate assistant	-	28	21	67	32	106
Total	322	369	416	508	445	682

Source: Kenyatta University, Planning Department Records and *Triennial Report, 1985-1989.*

Despite such a remarkable growth in the number of academic staff members at Kenyatta University, there remains a shortage of staff especially for the education-based courses. This situation has resulted from the tendency of the other public universities to offer education courses, although these are already well established at Kenyatta, as government policy has failed to encourage the consolidation of the education faculty at Kenyatta University. As a result, a substantial proportion of staff of Kenyatta University's education faculty (particularly the younger ones) have left in search of promotion opportunities in the newer institutions. It has been estimated that staff attrition at Kenyatta University has averaged 30 per cent during the last five years (Kenyatta University, 1992).

In a sense, the massive staff recruitment drives that came with the double intakes seem to have had a significant impact on the nature of student/staff ratios. In *Table 4.4* we have displayed staff/student ratios for the years 1986/1987, 1987/1988, 1989/1990 and 1990/1991. What is immediately striking is that, overall, compared to the industrialized

countries, Kenyatta University staff/student ratios appear very favourable. In this connection, one could easily conclude that teaching staff at Kenyatta University cannot really be said to be so absorbed in teaching that they may not spare any time for reading and research as we have already implied. However, a few caveats need to be made.

First, a majority of students enrol in more than one faculty. This is especially true of those students taking the Bachelor of Education degree programme who enrol in their chosen subjects (arts or sciences) as well as in education ones. At the same time, a substantial proportion of staff teach services courses in departments in which they were not deployed on recruitment. Thus, some education faculty staff teach in the education, arts or science faculties and vice versa.

Second, a very high proportion of the teaching staff are of the junior ranks (graduate assistants, tutorial fellows and assistant lecturers). This has been especially the case following the hurried recruitment of staff with the two double intakes. These junior staff in a majority of cases, carry teaching and research responsibilities much lower than those of the senior staff who also carry out the bulk of the departmental administrative responsibilities. In fact, many of these younger scholars are pursuing MA and doctoral programmes locally and overseas, thus making it even more difficult for the senior scholars to be able to take up sabbatical leave.

Third, unlike the case of the industrialized countries, where teaching staff are able to delegate some of their teaching responsibilities to teaching assistants who are paid by the respective universities, such a system which could greatly ease the burden of teaching staff does not operate at Kenyatta or any of the other public universities. Similarly, while senior staff in universities based in the industrialized countries can delegate the bulk of their administrative responsibilities to administrative assistants or to competent secretaries/office administrators, such a system does not exist in Kenya.

Table 4.4 Kenyatta University teacher/students ration by faculty, (1986/1987 – 1990/1991)

Faculty	1986/1987			1987/1988			1989/1990			1990/1991		
	Students	Teachers	Ratio									
Education	4 066	140	1:29	4 194	158	1:27	5 080	220	1:23	5 411	296	1:21
Arts	102	128	*	505	139	1:4	1 344	151	1:9	2 230	198	1:11
Science	67	101	*	267	119	1:2	512	159	1:3	770	185	1:4
Commerce	-	-	-	-	-	-	106	15	1:7	246	32	1:8
Environmental studies	-	-	-	-	-	-	-	-	-	-	11	*
Total	4 185	369	1:11	4 966	416	1.12	7 042	545	1:13	8 657	682	1:13

Source: Kenyatta University, (1990), *Triennial Report 1985-1987* and Kenyatta University (1992). Registrar's Department.

Note: The faculties of Arts and Science were established during the 1986/1987 academic year by which time only a small number of lectures had been recruited. For the Faculty of Environmental Studies, lecturers were recruited a year before students enrolled for any courses.

(b) Relaxed promotion criteria

With the double intakes, Kenyatta University has tended to relax the criteria for both the recruitment of new staff as well as the promotion of those already working at the institution. Due to a demand for teaching staff that has far outstripped the supply, Kenyatta University has been forced to fill existing academic positions with persons who would normally not have qualified to join the university system. Thus, masters and even first degree holders, many of them from uncredited universities in India and North America, have been recruited to take up teaching positions. In addition, tutors of primary teacher training colleges and secondary school teachers have been recruited to join the teaching ranks. This has especially been true for lectures of such subjects as Kiswahili, French, music and fine arts, for whom post-secondary training opportunities are limited.

Secondly, because the other three Kenyan public universities have established their own education faculties, competition for staff across the various universities has been cut-throat. In order to retain staff in the face of such competition, the university has adopted staff promotions criteria not necessarily based on such factors as length of service, competence in teaching and research or publication of books and articles (Kenyatta University, 1990:14). As a result, many scholars have found that they can easily gain promotion without having to publish, a situation that can only be made worse by the fact that nationals taking up positions at Kenyatta or any other public university are employed on permanent and not contractual terms. Likewise, tutorial fellows and assistant lecturers have been hurriedly promoted to the rank of lecturer in order to stem the exodus to other universities and the Ph.D degree has been shelved as the minimum requirement for a permanent position at Kenyatta and other public universities.

(c) Other incentives

Apart from easy promotions, other measures taken to enhance the retention of academic staff members include the government's exemption of academic staff from paying customs duty and sales tax on any vehicle purchased within a four-year duration and the recent improvements in

university staff salaries as well as the other benefits and conditions of service.

Although these measures have to a certain extent served to raise the morale of academic staff members, they have not entirely solved their economic survival related problems. For example, even though the exemption of duty and sales tax may appear an attractive gain by teaching staff, it should not be forgotten that the purchase of new cars is for many of them both a luxury and unaffordable. For although salaries and other terms of conditions were revised recently, the increments remain very much negligible and have miserably failed to reflect the inflationary conditions characterizing Kenya. As is clear from *Table 4.5*, the beginning salary of a full Professor currently stands at only Kenya Shillings 16,345 (US\$272) while that of an Assistant Lecturer stands at Kenyatta Shillings 6,785 (US\$113) which in both cases can hardly keep them and their respective families afloat. As a result, a good proportion of the teaching staff have been forced to engage in other activities unrelated to their post. Needless to say, the consequences of such a trend include less commitment to teaching and research.

Table 4.5 Starting salaries for academic staff members in Kenyan Public Universities (1993)

Position	Salary	
	KShs.	US\$
Assistant lecturer/tutorial fellow	6 785	113
Lecturer	8 605	143
Senior lecturer	10 945	182
Associate professor	14 035	234
Professor	16 345	272

Source: Kenyatta University (1992), Finance Department.

Note: Through most of 1993 the US\$ traded at approximately Kenya Shillings 60.

4. Management of university examinations

Increased numbers of students also posed problems related to the administration and grading of university examinations. With regard to the administration of examinations, the main problems revolved around examination irregularities and delays in grading and moderating both continuous assessment and end of semester examinations.

(a) Examination irregularities

Although some cheating in examinations by students also characterized the pre-double intakes student cohorts, more cases of cheating were noticeable following the double intakes due to increased enrolments which made the system more difficult to manage. According to the Kenyatta University Senate (Kenyatta University, 1990:2), examination irregularities have been characterized by the tendency of candidates to glance at other candidates' answers; copy from unauthorized materials; pass verbal or written communication to other candidates in the examination room; take used and unused examination answer books outside the examination room; bring unauthorized material in the examination room; give written material for use by other candidates; copy from other candidates' answers; and, return examination answers after examinations have been taken.

To curb the above irregularities, the Senate made several recommendations (Kenyatta University, Ibid). The first was that seating arrangements should be organized in such a way that candidates' seats are properly spaced to avoid any temptation to cheat. However, the very large number of students in some of the classes and the paucity of lecture rooms of adequate sizes have made this recommendation difficult to implement.

Secondly, Senate recommended that examination invigilators should admit candidates to the examination room five to ten minutes before the start of any examination. This suggestion has also proved difficult to implement because of the large numbers of students enrolled in some of the classes. Fitting between 500 and 700 students in an examination room in five to ten minutes is virtually impossible. Likewise, collecting scripts from such numbers of students does of necessity take more than ten minutes. In the process of settling or releasing students, there exists much opportunity for tampering with the system.

Thirdly, invigilators were advised not to permit students to leave the examination room except in emergency situations and that if a candidate must go out of the examination room for, say, a natural call, they should be accompanied by an invigilator. Students were also not to leave the examination room during the first and last half hours of an examination. These measures are somewhat impractical for several reasons. First, it is not realistic to expect invigilators to accompany their students to toilets (there are age, gender and space considerations). Second, it is not possible to restrict the time periods when students can go out of the examination rooms. Third, in cases where there is only one invigilator in an examination room, a lot of cheating is sure to occur when the invigilator is out tracing the movements of one student.

Fourthly, Senate advised invigilators to make announcements before the start of examinations to the effect that any unauthorized materials should be handed over to them and to draw the attention of candidates to the seriousness of cheating in examinations. In many cases, these announcements fell on deaf ears not only because of the large numbers one is dealing with but also because the current generation of the university student is a relatively undisciplined one.

Fifthly, candidates found cheating in examinations were required to sign statements confirming their actions which would be forwarded to their respective heads of departments who would in turn present their cases to the Faculty Board. The Faculty Board would then forward their recommendations to Senate for the final decision. However, in some cases students can refuse to sign such statements while the follow-up system by heads of departments and Senate is itself subject to some irregularities.

In addition to the above recommendations, the Senate also suggested various levels of punishments to deal with examination offenders and established a Senate Committee whose role would be to deal specifically with examination malpractices.

Following the application of these Senate recommendations, cheating is now much less frequent as students have become increasingly aware of the negative consequences.

(b) Other examination-related difficulties

Increased enrolments also pose problems related to the frequency of administering examinations, the length of time it takes to complete grading as well as the cost involved in the successful completion of the examination exercise. Delays in grading have been so serious that sometimes students never get to know their results until the following academic year and after they have already enrolled in the next class. For those students who have to resit some papers and especially those who have to repeat the year, serious administrative problems result.

Lecturers who have to examine large classes have adopted several strategies to help them cope. One strategy adopted by a substantial number of lecturers and professors is to give fewer assignments and continuous assessment tests. One consequence of this trend is that, those students who read only during examinations (and these are by far the majority) do not get into the habit of constantly reviewing their lecture notes or engaging in much independent study. In fact, this is one reason why the university library tends to be too crowded during examination periods.

The second strategy adopted by some of the teaching staff at Kenyatta University is the use of multiple-choice type questions in the place of essay type questions because the former system does not involve as much time when grading. The problem with such an approach, however, is not just that students get used to memorizing facts as opposed to taking a comprehensive approach to the study of given subjects but also that students who are exposed to multiple-choice type questions lose the opportunity to practice learned writing skills.

Finally, the quality of grading examination scripts could be said to have declined markedly. This is so mainly because teaching staff who are confronted with hundreds of scripts to grade have been unable to pay as much attention to each individual script as would be required to ensure quality work. That this is so has been evidenced by the constant appeals from students who have been unjustly failed by teaching staff who have been later found guilty of not carrying out their grading exercise efficiently.

5. Conclusions

A number of management changes took place at Kenyatta University to cope with the double intakes. The first set of changes relates to the expansion of tuition and boarding facilities. However, because resources to implement such changes fell far short of the demand, congestion in lecture theatres, science laboratories, libraries and dining halls has remained a critical problem.

The second set of changes related to the organization of the three-semester year, which necessitated the use of available facilities throughout the year, repeating of the same lectures to different groups of students because of a lack of lecture theatres of adequate size and extended teaching hours, as reflected in the timetabling of classes. Although commendable from the point of view of promoting a more efficient use of available resources, these measures also had some negative consequences, most notably the lowering of staff morale, the lengthening of the period it takes students to complete their degree courses as well as the lowering of academic standards.

The third set of changes related to staff incentives. These have included accelerated recruitment of teaching staff, the application of a relaxed promotion criteria, and the introduction of monetary incentives. The first two measures have tended to de-emphasize merit and the need for staff to research and publish and have had serious negative consequences on the quality of education offered by Kenyatta University. Meanwhile, the majority of the teaching staff have not benefited from monetary incentives such as the exemption from duty and value added tax on the purchase of new cars because staff salaries are relatively low.

Finally, the double intakes necessitated changes in the administration of university examinations. In addition to making the process of administering examinations more cumbersome, increased enrolments were accompanied by an increase in examination irregularities such as cheating while staff applied less rigorous criteria in grading examinations. Measures recommended by the Senate to curb such malpractices have not met with much success mainly because of the unmanageable size of many classes. Other measures taken to improve on the efficiency of administering examinations such as the introduction of multiple choice test have only added to further dilute the quality of education offered at Kenyatta University.

Chapter V

Conclusions: the experience of the double intakes: problems and prospects

In this concluding chapter, we evaluate the management experience of the double intakes and draw practical conclusions on how the management of large student numbers might be improved.

1. The merits and demerits of the double intakes management experience

The management experience of the double intakes might be commended on two main accounts, namely the economies of scale that have been achieved and the related benefits for society which are likely to emanate from the resultant expansion of university opportunities.

(a) Economies of scale

Despite the fact that the cost of implementing the double intakes has been considerable, there has been some reduction in the per student cost. *Table 5.1* summarizes the cost of educating each university student for the years 1986/1987, 1989/1990 and 1990/1991. It is clear from this table that due to both the double intakes and the limited resources available to cater for the increased numbers of students, Kenyatta University has been compelled to utilize existing facilities and staff more fully.

Table 5.1 Cost of educating a Kenyatta University student (1986-1991)

Academic year	Recurrent expenditure estimates ('00,000 Kenya pounds)	Number of students	Cost per student (Kenya pounds)
1986/1987	5.51	3 017	1 826
1987/1988	6.40	5 135	1 246
1989/1990	10.95	7 360	1 488
1990/1991	12.15	8 820	1 378

Source: Republic of Kenya (1986-1992). *Estimates of Government expenditure on University Education* (Nairobi, the Treasury) and Republic of Kenya (1986-1992). *Economic surveys* (Nairobi, Central bureau of statistics).

Table 5.1 reveals that it cost more to educate a student at Kenyatta University during the pre-double intakes period than it has during the double intake years. In 1986, the year preceding the first double intake, the cost of educating a student at Kenyatta University stood at 1,826 Kenya pounds compared to 1,246 pounds in 1987/1988. In the year of the 1990/1991 double intakes, this cost rose to 1,378 pounds but declined in real terms. Although Kenyatta has been able to continuously reduce the cost of educating students, such reductions have, however, not augured well for the quality of education being offered at this institution as we shall demonstrate below.

(b) The benefits of expansion to society

Being able to cater for increased student numbers with basically the same level of resources yields a variety of benefits for the wider society. Hughes and Mwiria (1990) detailed some of these benefits, i.e. the expected political stability made possible by the expansion of university opportunities, the diminishing foreign exchange losses to support overseas education, equity improvement, the economic and social benefits which result from the manpower generated by universities, and the economies of scale discussed above.

2. The demerits of expansion

The benefits discussed above have not been obtained without price. Associated with the double intakes has been the declining quality of university education, the increased overall costs of university education, a lengthening of the period it normally takes students to graduate and an intensification of the graduate unemployment crisis. These trends cast serious doubts on the merits of the double intakes experiment.

(a) Declining academic standards

As discussed in an earlier chapter of this report, the double intakes have been associated with a variety of negative consequences such as overcrowding in tuition and boarding facilities, relaxed staff recruitment and promotion criteria and increased examination irregularities. These factors have had a noticeable impact on the quality of education offered at Kenyatta University. It is still too early to gauge the quality of the 1990/1991 graduating double intakes class as compared to previous cohorts. However, it is possible to use performance in undergraduate examinations to compare the 1990/1991 and the pre 1990/1991 cohorts.

In *Table 5.2* we show the performance in the first year examination for 1989/1990 (the group preceding the double intakes) and the 1990/1991 double intakes group. Although the differences in performance between the two groups do not appear significant, in all cases except the Bachelor of Commerce class, the pre-double intakes class had a higher percentage of students passing their end year examinations than did the double intakes group. The case of the Bachelor of Commerce class can probably be explained by the fact that there were no significant differences between the numbers of enroling first-year groups for the two years.

In addition to the lowering of academic standards, teaching under the circumstances described above plus the relatively low salaries of staff, serves to lower staff morale as a result of which some of the more capable of them have left Kenyatta University.

Table 5.2 Performance in first year examinations for the 1989/1990 and 1990/1991 groups

Degree programme	1989/1990				1990/1991				Total	
	Pass	Supple- men-tary	Repeat	Discon- tinued	Pass	Supple- men-tary	Repeat	Discon- tinued		
B.Ed. Arts	721 (74)	228 (24)	7 (1)	2 (1)	958 (100)	1 140 (69)	473 (28)	36 (2)	11 (1)	1 660 (100)
B.Ed. Science	181 (73)	61 (25)	4 (2)	0 (0)	246 (100)	328 (57)	215 (37)	25 (5)	8 (1)	576 (100)
Bachelor of Arts	328 (73)	110 (25)	2 (1)	1 (1)	441 (100)	832 (71)	293 (24)	30 (3)	19 (2)	1 173 (100)
Bachelor of Science	99 (68)	44 (31)	2 (1)	0 (0)	145 (100)	284 (60)	175 (38)	6 (1)	6 (1)	471 (100)
Bachelor of Commerce	33 (51)	30 (46)	2 (3)	0 (0)	65 (100)	92 (65)	44 (31)	1 (1)	4 (3)	141 (100)
B.Ed. (Primary Option)	34 (75)	11 (25)	0 (0)	0 (0)	45 (100)	25 (71)	10 (29)	0 (0)	0 (0)	35 (100)

Source: Kenyatta University (1991). Registrar's Department.

Note: Supplementary refers to the first resitting of a paper in which a student has scored lower than 40 per cent.

(b) Increased costs

In addition to declining academic standards, the double intakes have also been associated with increased overall cost of running the universities. As indicated in *Chapter III*, total government estimated expenditure on university education rose from 12,990,000 pounds in 1986/87 (the year preceding the first double intakes) to 41,080,000 pounds (an increase of 216 per cent) in 1990/91, the year of the second double intakes. However, during this period, the rate of inflation rose from 10.7 per cent in 1986 to 12.6 per cent in 1990 (Kenya, 1986, 1990). In view of the fact that the government is already spending a disproportionate share of the national resources on education, such a trend is not necessarily a positive one.

(c) Lengthening of the period required for graduation

The double intakes have also resulted in the lengthening of the amount of time it takes for a student to complete a university degree, due to the introduction of the shift system which keeps groups of students out of the university system for durations of up to six months. In fact, the 'A' level group that was admitted to Kenyatta University in 1990/1991 will not graduate until 1994. Under normal circumstances, this group of students should have graduated in 1993. Those students undertaking the Bachelor of Education Programme have been the most affected. Although they broke for their long vacation along with the other 'A' level students in June 1992, they will not be back to the university until December 1993. Of the 12 months they were out of the university, only three were spent on university-related internship (teaching practice).

(d) Intensification of the graduate unemployment crisis

Increased enrolments in Kenyan public universities in general has also the effect of intensifying the graduate unemployment crisis. Hughes (1987) has documented the increasing difficulties in securing employment which graduates of the University of Nairobi were already experiencing as early as 1983. Despite the fact that some fields such as medicine and education (science) continue to be in short supply, others, especially the more generalized fields such as general bachelor of arts and science

programmes and even professional ones such as commerce and engineering, are already over-saturated. Overall, it is now quite clear that a virtually stagnant Kenyan economy is unlikely to adequately absorb a substantial proportion of graduating students.

3. Improving university management under circumstances of scarce resources

Poor management strategies and limited funding are the root of many of the difficulties associated with the double intakes. In the pages which follow, we propose some strategies that could help alleviate the management and funding crises resulting from the double intakes. Management of available resources could be enhanced through: innovative teaching approaches; better management of available resources; increased dialogue among all the stake-holders; decentralization of essential services; and, long-term planning of anticipated changes.

(a) Innovations in teaching approaches: closed-circuit television

Although several teaching approaches have been tested with the double intakes, there is clearly room for more innovation in this area. A potential area that has not been experimented with is the use of closed-circuit television (CCTV). Kenyatta University could opt for CCTV, which involves transmission of the relevant equipment by hand or vehicle to lecture halls as opposed to relying on the coaxial cable transmission system, as the former would be both cheaper and would suit the layout of Kenyatta University's lecture halls. Recommendations for such a system have already been made by a Senate Committee on CCTV (Kenyatta University, 1991) but no serious efforts have been made to install such a system.

Among the benefits of CCTV for Kenyatta University are: the possibility of mounting an external degree programme; a reduction in the amount of time students spend in lecture theatres as they could use pre-recorded audio tape lectures in their free time; lecturers would be freed to participate in tutorial discussions as the bulk of their lectures would be on tapes; other universities and institutions of higher learning could benefit from such recorded lectures; and, the wider society could benefit

from selected pre-recorded programmes which could be transmitted through the national television network.

(b) Improved management

Without in any way denying that the government is responsible for under-funding public universities, we need to stress that universities themselves mismanage the scarce resources available to them. Galabawa's (1991) observation on the University of Dar-es-Salaam to the effect that a lot of the resources available to the university seem to be disappearing in "... a bottomless pit of inefficiency and mismanagement" could also be said to hold true of Kenyatta University. Management of available resources could be improved through a variety of strategies.

One is the introduction of stricter accounting and auditing procedures. At Kenyatta University, as is indeed true of other public universities, administrative staff have been known to benefit from defective purchase arrangements particularly through tenders, and the university has on several occasions paid for irregular medical, travel and house allowances. Such malpractices can be greatly reduced through the application of accounting and auditing procedures which leave little room for loopholes and which are supported by regulations which enforce the imposition of the appropriate punishment on offenders.

Second, is the training of university administrators and academic heads of departments and deans of faculties. Unfortunately, over the years, a disproportionate share of training resources as well as the scholarships offered by foreign donors, has gone to academic training. Yet it is the non-academics who control all the funds of the university and who make key university decisions. Training of administrators could be both short and long-term depending on the training needs of the various personnel. Heads of departments, directors of institutes and deans could also draw some benefit from these kinds of training activities. It should not be assumed, as is usually done, that the mere acquisition of an advanced degree and teaching experience qualify one to be a good manager.

A third management improvement measure is the introduction of an incentives system that recognizes good managers and earmarks them for both financial rewards, promotion and further training. This does not really appear to be the case at Kenyatta University where some clearly

incompetent persons have been appointed to senior management positions because of their relationship with the powers that be. The main problem with appointing persons who are incompetent to key positions is not only that they manage badly, but that they also fail to command the respect of their juniors, which can have a devastating effect on the smooth functioning of the respective departments which they head.

Fourth, management could also be improved through regular departmental meetings, which review progress made and expected outcomes as well as how the process could best be improved. Such a strategy should drastically reduce the management blunders which result from one-person dictatorships.

In addition to the measures discussed above, management could also greatly be improved through the use of modern technology such as computers. In particular, the computerization of student records, services such as accommodation, examinations and the library system, should not only ease the administrative burden but should also make the administration of these systems more efficient.

(c) Consensus building

Planned changes are more likely to succeed or fail depending on the co-operation of those affected by such changes. We have already explained how some teaching staff and students objected to some of the changes implemented for the double intakes. Part of the reason for such resistance, we believe, is the limited consultation that takes place before many decisions are implemented. Except for the Senate meetings, little or no discussion of planned changes takes place at the departmental level and in the majority of cases, students are not consulted at all.

There is thus an urgent need for a democratization of university decision-making which could be strengthened through the widening of student and staff representation in university governing bodies, the strengthening of staff and student associations which are the best avenues for airing respective constituencies' views and through efforts which aim at informing students and staff well in advance (through newsletters, magazines, bulletin boards, etc.) of planned changes and which give possibilities for much needed feedback from these groups.

Discussions of planned changes should go beyond merely indicating what is to be changed. Also important is the need to make clear the main

sacrifices which will have to be made and by whom, as well as the benefits to be reaped by stakeholders, if any. Some form of incentives should be included in the package of any proposed changes.

Consensus building has to be extended beyond Kenyatta University boundaries and should involve government officials as well as the wider public. It is particularly important that university officials get government officers, especially those who make decisions affecting universities, to appreciate the difficulties universities go through if they expand student populations without a commensurate rise in university funding as well as the consequences for universities of any other forms of political interference in the running of university affairs.

Similarly, the wider public needs to be informed of any planned changes because it is they who pay for the running of these institutions and send their children to them.

(d) Decentralization

Dealing with large student numbers can prove particularly difficult if essential services and decision-making power are concentrated in a few hands. For the most part, administrative functions at Kenyatta University are reasonably decentralized. However, essential services such as student boarding and library services remain very centralized.

Boarding services could be decentralized by appointing administrators for the various hostels, especially those accommodating upwards of 500 students, or for a cluster of hostel blocks as opposed to the current system, where there is one central halls administrator. Similarly, dining services could be centred around specific hostels and not a combination of hostels as is presently the case. It may prove more manageable to have dining facilities located in large hostels as opposed to the current system of relying on only three dining halls to serve a student population of more than 9,000.

Decentralization can also do much to ease the congestion in the library. In this regard, it will be useful not only to expand the present Kenyatta University main library but also to establish departmental or faculty libraries and to expand the capacity of those already in existence.

(e) *Forward planning*

As with the planning of the 8-4-4 system at the primary and secondary school levels, the planning of the double intakes at Kenyatta University left much to be desired. Even by the time the second double intakes was implemented, it seemed that the Kenyatta University authorities had not learnt very much from the experiences of the earlier double intakes. It, however, needs to be appreciated that at the root of the problem is the fact that many of the lessons that may have been learnt were very much related to the amount of resources that were available for the successful implementation of any anticipated changes for the 1990/91 double intakes. This is not to say that some changes may not require much funding for their successful implementation. Some of the changes that needed to be made with regard to the two double intakes would have been implemented with a reasonable measure of success if specific efforts had been made to improve the planning process at Kenyatta University. This process could be enhanced through several strategies.

One is the carrying out of well-designed feasibility studies before initiating any changes. These studies should answer questions such as: what is the current state of available resources? Can these be improved? Is there likely to be any opposition to the planned changes? How will such opposition be handled?

Second, there is need to consult those likely to be affected by the planned changes. What would they like to see done? How would they like to have it done? What is likely to be their contribution towards the planned changes?, etc.

Third, planners need to be clear on whether or not there will be adequate physical and human resources to make the implementation of the planned changes feasible. If such resources are inadequate it should be made clear where they are to come from. If training of personnel is required, training needs, the persons to be trained, the institutions where such training is to be carried out, and such related questions should be addressed well in advance.

Fourth, those planning the necessary changes need to operate on the basis of a well thought out plan of action which spells out the various deadlines to be met and which should ensure that such a programme is strictly adhered to. Such discipline is often lacking among persons working in public institutions. Likewise, if any committees have been

assigned specific responsibilities, it is necessary to constantly monitor their activities to ensure not only that they are keeping to their respective terms of reference but also that they are on schedule to accomplish the tasks assigned to them in time.

Finally, decisions arrived at the university level should be communicated to the relevant authorities in government well in advance to avoid a situation in which the government decrees the kind of changes which need to be initiated. Without doubt, the extent to which Kenyan public universities will succeed in implementing any plans is very much dependent on the co-operation of the Kenya Government not only because educational decision-making is very much a political affair, but also because it is the government that has to bear the bulk of the cost associated with university education.

Better understanding and co-operation between university administrators and senior government officials could be enhanced through: joint university/government planning committees, the creation and strengthening of buffer bodies such as Kenya's Commission for Higher Education (CHE), the sharing of professional personnel between universities and government as well as through efforts on the part of universities to diversify their sources of funding. This latter point is discussed below.

4. Confronting the funding crisis

We have argued that the crisis of under-funding which Kenyatta University has experienced recently has contributed in no small measure to the inability of this institution to effectively implement some of the changes associated with the double intakes. Moreover, the success of many of the changes proposed in the preceding section will greatly depend on the availability of funds. Kenyatta University will thus need to draw more resources from the government, the students, donors, non-governmental organizations and the private sector. In addition, the university has to seek ways of generating revenue using her existing physical and human resources.

(a) The Government

The Government of Kenya cannot call for changes at the universities without being ready to contribute financially for the successful implementation of such changes. The government should therefore be ready to commit more resources than is currently the case to Kenyatta University. However, in view of the need for the government to put resources at the disposal of other social services at a time of a declining economy, not very much may be expected. In addition to the available government funding, Kenyatta University has thus to look elsewhere.

(b) Asking more from the beneficiaries of university education

Although politically unattractive, Kenyan universities have to ask the beneficiaries of university education to meet a larger share of the costs of educating them. This could be accomplished through the paying of a portion of tuition and boarding fees as well as such other fees as examination, sports and laboratory.

Kenyatta University could also put a limit on the number of students to be accommodated in the hostels. Given that most students will want to stay on campus, it will be useful for the university to devise criteria for deciding on the students to be accommodated in student hostels. In this regard it may be necessary to consider such factors as a student's academic ability, home background and the possibility of his/her finding alternative accommodation outside campus.

(c) Donor assistance

Opportunities also exist for Kenyatta University to benefit from donor assistance especially in relation to research funding and graduate training. Most of the research funds available to Kenyatta University, for example, come not from the government but from donor agencies, most notably the International Development Research Centre of Canada, the Rockefeller and Ford Foundations, UNESCO and UNICEF, in addition to traditional British sources. The same donor agencies have greatly contributed to the staff development programmes of Kenyatta University. While continuing to benefit from donor support, Kenyatta University will need to diversify her sources of external funding, possibly the Japanese and other emerging

economic giants of East Asia (South Korea, Hong Kong, Taiwan) as well as the Arab countries.

(d) The private sector

A funding source that has so far not been that well exploited by Kenyatta and other public universities is the private sector, a sector that could be said to reap as many benefits from university education as the university graduates themselves. This sector should pay for such benefits by putting money into Kenyatta University through individual student scholarships, research funding and endowments as well as by giving contracts to Kenyatta University consultants and training facilities, i.e. the creation of African style Rockefellers, Fords and Carnegies, for we have in Kenya individual entrepreneurs who may in fact command greater proportions of their respective countries' resources than the share of America's wealth possessed by Messrs Rockefeller, Ford and Carnegie.

Kenyatta University could herself generate funds that could be used to offset some of the costs of running certain programmes through the establishment of economic production units such as agricultural farms (as is the case at Nairobi and Egerton) or the formation of university consulting firms centred around students and staff in disciplines such as commerce, education, engineering, law, architecture, etc., putting to economic use university facilities that for the most part are idle at night and during vacations (e.g. renting hostels to tourists, enrolling students for evening and vacation study, etc.), ensuring that universities get a greater share of consultancy fees from full-time university staff who engage in private consultancies; and, local production of teaching materials such as chemicals and of textbooks from the collection of lecture notes, seminar papers, students' essays and research reports. Care must, however, be taken to ensure that such income-generating activities do not threaten any further the quality of education being offered by these institutions.

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The book

This study, which is part of a research programme directed by Bikas C. Sanyal, IIEP, describes the planning and implementation of changes necessary to accommodate a double intake of students in 1990 at the University of Kenyatta. The solution adopted was radical i.e. year-round teaching. A considerable number of problems were encountered due to the complexity and integrated nature of organizational needs to effect the change. Higher educational institutions wishing to use their facilities more intensively, in particular by extending the academic year, may profit from this experience.

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