

MINUTES OF DISCUSSION
ON
(NIPPON NYS ENGINEERING INSTITUTE)
BETWEEN
THE JAPANESE PRELIMINARY SURVEY TEAM
AND
THE KENYAN AUTHORITIES CONCERNED HELD
FROM
25TH FEBRUARY - 7TH MARCH 1985
IN
NAIROBI
THE REPUBLIC OF KENYA

Mk

[Signature]

MINUTES OF DISCUSSION ON NIPPON NYS
ENGINEERING INSTITUTE BETWEEN THE
JAPANESE PRELIMINARY SURVEY TEAM AND
THE KENYAN AUTHORITIES CONCERNED HELD
FROM 25TH FEBRUARY TO 7TH MARCH 1985
IN NAIROBI, THE REPUBLIC OF KENYA

Present:

The Japanese Preliminary Survey Team for NIPPON NYS
Engineering Institute:

Mrs Mitsu Kimata (Leader)	Director, Overseas Cooperation Division, Human Resources Development Bureau, Ministry of Labour.
Mr. Katsuyoshi Taniguchi	Senior Instructor, Yahata Skill Development Centre, Employment Promotion Projects Corporation.
Mr. Kiyokatsu Tanaka	Chief, Vocational Training Standard Sub- Division, Human Resources Development Division, Human Resources Development Bureau, Ministry of Labour.
Mr. Tadao Iwaki	Overseas Training Cooperation Specialist, Overseas Cooperation Division, Human Resources Development Bureau, Ministry of Labour.
Mr. Ippei Hattori	Senior Officer, Overseas Centres Division, Social Development Cooperation Department, Japan International Cooperation Agency.
Mr. Katsuji Onoda	In-charge, Basic Design Division, Grant Aid Department, Japan International Cooperation Agency.

mc

[Signature]

The Office of the President, the Republic of
KENYA

Mr. E. A. Idwasi Deputy Secretary
Mr. J.K. Arap Mutai Under Secretary

Ministry of Finance & Planning, the Republic of
KENYA



Mr. O. A. Wafula Senior Assistant Secretary

National Youth Service, the Republic of
KENYA

Mr. N.H.K. Arap Langat Deputy Director
Mr. David N. Mugambi Training Coordinator
Mr. Paul W. Wachira Senior Education Officer

1. The discussions were held in an atmosphere of mutual understanding between the Japanese Preliminary Survey Team (herein after referred to as "The Survey Team") and the representatives of the Kenya Government on the proposed NIPPON NYS Engineering Institute (herein after referred to as "NIPPON NYSEI").

The objectives of the Survey Team were stated as follows:

- a) To discuss and establish mutual agreement between the Survey Team and the Kenyan Authorities concerned on the final terms of the Tentative Understanding on the Basic Conceptual Framework for the Establishment of NIPPON NYSEI.
- b) To establish tentative mutual understanding on the necessary measures to be carried out by the Government of the Republic of Kenya (GOK) and the Government of Japan (GOJ) in the implementation of NIPPON NYSEI.
- 
- 

- c) To discuss and establish tentative mutual agreement on the final technical details of NIPPON NYSEI in terms of training programmes to be conducted and duration of and intake into training course, and
- d) To discuss the organisational structure and the tentative implementation schedule of NIPPON NYSEI and the equipment required in connection with its training programmes.

2. Several rounds of discussions were held between the Survey team and the Kenyan authorities concerned on the draft tentative understanding on the basic conceptual framework for the establishment of NIPPON NYSEI. It was mutually agreed that this should include the following essential elements:-

- (i) objective and main functions of NIPPON NYSEI
- (ii) framework of training system in NIPPON NYSEI, and
- (iii) terms of cooperation and major elements of technical cooperation.

It is further understood that the Record of Discussions to be jointly signed between the Kenyan Authorities concerned and the Japanese Implementation Survey Team which is expected to be in the Republic of Kenya at the beginning of 1986, would be based on the Tentative Understanding.

3. The Survey Team explained that the GOJ assistance for NIPPON NYSEI will comprise:

- (i) Grant Aid in terms of construction of buildings, provision of facilities and supply of a major portion of the equipment required.

(ii) Technical cooperation in terms of despatch of expert training of Kenyan personnel in Japan and provision of supplementary equipment not provided under the Grant Aid Scheme. However, the Kenya side requested the Survey Team to spell out in quantifiable terms the cost of the buildings, equipment and other facilities that would be provided by the Government of Japan under the grant aid as well as technical cooperation. The Kenyan side emphasised that the provision of these figures would enable the Kenyan authorities to determine the level of funding to be provided during the preparation of estimates for the project.

4. It was mutually agreed that the basic conceptual framework of the training system will be as indicated below:

a) <u>COURSE</u>	<u>ENROLMENT</u>	<u>INTAKE PER YEAR</u>
Mechanical engineering	60	20
Motor Vehicle Technicians	60	20
Construction Plant Technicians	60	20
Main Electrical Installation Technicians	60	20
Radio, Television and Electronics Technicians	60	20
T O T A L	<u>300</u>	<u>100</u>

- b) Training duration - 3 years
- c) Qualification given to the graduates

After successful completion of a Technician Certificate Part II course and having passed relevant Examination, the graduates will be eligible for Technicians Certificate Part II.

- d) Entry Qualification

Minimum "O" level with credits in mathematics, English and appropriate science subjects or equivalent.

- e) Training objectives of each course will be as follows:-

Mechanical Engineering

Trainees, upon the successful completion of the course, will have enough skills and related knowledge:

- (i) to conduct various cutting and grinding work of metallic materials by using machine tools such as lathe, milling machine, etc., and
- (ii) to conduct hand finishing work of machine parts by using hand tools, and
- (iii) to conduct maintenance and installation work of machinery.

Motor Vehicle Technicians

Trainees, upon the successful completion of the course, will have enough skills and related knowledge:

- (i) to operate machines and tools necessary for automotive maintenance and repair, and
- (ii) to conduct inspection, disassembling, reassembling, adjusting and repairing work.

Construction Plant Technicians

Trainees, upon the successful completion of the course, will have enough skills and related knowledge:

- (i) to operate machines and tools necessary for repairing of construction machinery, and
- (ii) to conduct inspection, adjusting, disassembling, reassembling and repairing work of construction machinery such as bulldozer and motor grader.

Main Electrical Installation Technicians

Trainees, upon the successful completion of the course, will have enough skills and related knowledge:

- (i) to conduct wiring work of lighting system and its related facilities and repairing work of general electrical apparatus, and
- (ii) to conduct wiring, rewinding, disassembling, reassembling, insulating and adjusting work of controlling device and electrical apparatus, and
- (iii) to conduct installation and maintenance work of window type air-conditioner and home refrigerator.

Radio, Television and Electronics Technicians

Trainees, upon the successful completion of the course, will have enough skills and related knowledge:

- (i) to conduct disassembling, reassembling and adjusting work of electronic applied apparatus such as radio receiver and television receiver, and
- (ii) to conduct measuring work by using electrical and electronic measuring device, and
- (iii) to operate micro-computer.

(F) SYLLABUSES

Syllabuses for the above courses are as indicated below:

COURSE	NO	TITLE	SPECIALIZATION
1. Mechanical Engineering	1021	Mechanical Engineering Technician Certificate	Plant maintenance and work services
2. Motor Vehicle Technicians	1022	Motor Vehicle Technicians Course	-
3. Construction Plant Technician	1025	Construction Plant technician	-
4. Main Electrical Installation Technicians	280-285	Main electrical installation technicians course	-
5. Radio, Television and Electronics Technicians	272	Radio, television and electronics technicians course	Radio and television theory and practice Electronics theory and practice

6. Discussions were held on the commitments to be undertaken by both governments during the implementation stage of the project, and at this juncture, the representatives of the GOK requested to be informed in quantifiable terms the extent of GOJ commitment in terms of Grant Aid as well as technical cooperation assistance.

The Japanese Survey Team explained that the question of how much assistance was forthcoming from the GOJ was outside their ambit and that the Basic Design Team which is expected to be despatched at the middle of 1985 will be in the position to tell the extent of the commitment.

However, the Kenyan side requested the Survey Team to convey to the GOJ the GOK request that Grant Aid should cover the following facilities:

- a) administration block
- b) workshops and laboratories
- c) class-rooms
- d) library
- e) kitchen & dining hall
- f) dormitories
- g) staff quarters for instructors.
- h) recreation hall
- i) equipment

7. Discussions were held on the type of appropriate equipment required for the implementation of the project and a tentative list of tools and equipment was submitted by the Kenyan authorities concerned. (See Appendix A). However, the final determination of the equipment required will be made at a later date.

8. The tentative organizational structure of NIPPON NYSEI was discussed. The meeting considered the structure in Appendix B herein attached as appropriate for the implementation of the NIPPON NYSEI project. This structure would be taken into consideration in the formulation of the final structure.

9. The tentative schedule of technical cooperation on the implementation of the NIPPON NYSEI as appearing in Appendix C here attached, was submitted by the Survey Team for discussion. For smooth implementation of the technical cooperation, the Survey Team and Kenyan Authorities concerned recommend the tentative Grant Aid schedule be followed as it appears in Appendix D. In the light of the above mentioned schedule, it was considered important that efforts be geared towards early realization of the NIPPON NYSEI project.

10. It is understood that the technical cooperation by the Government of Japan for this project will be for five years.

11. It is understood that the objectives of the GOJ Technical Cooperation is to assist Kenyan counterparts in conducting the training programme as indicated in Paragraph 4(a). Major elements of the Technical Cooperation by the Government of Japan will be as follows:

i. Despatch of Japanese Experts

(a) It is anticipated that long-term experts will be in principle despatched as follows:

Chief Adviser	One
Mechanical Engineering	Two experts
Motor Vehicle Technicians	Two or three
Construction Plant Technicians	experts
Main Electrical Installation Technicians	Two or three experts
Radio , Television and Electronics Technicians	
Coordinator	One

(b) Short-term experts will be despatched, when necessity arises, for the smooth implementation of the project.

ii. Training of Kenyan Personnel in Japan

It is anticipated that during the cooperation period as mentioned in 10 above, three to five Kenyan personnel connected with the project will be received annually in Japan for technical training.

iii. Provision of Equipment

It is anticipated that the major portion of the equipment necessary for the project will be supplied under the Grant Aid Programme by the Government of Japan. Therefore, the equipment to be supplied under the technical cooperation programme is anticipated to be of a small quantity.

12. The Construction of Buildings and Facilities, Supply of Equipment under the Grant Aid Programme will be studied further by the "Basic Design Survey Team" which will be sent to deal with the Grant Aid Programme, after the Preliminary Survey Team reaches tentative understanding with the Kenyan Authorities concerned on the software aspect of the project.

13. It is understood that there will be mutual consultation between the two Governments on any major issues in connection with the assistance to be provided by the Government of Japan for the establishment of NIPPON NYSEI.

14. The Survey Team explained that the contents of Appendix "E" is a general GOJ requirement for any Grant Aid and Technical Assistance. However, the Kenyan Authorities concerned informed the team that the contents of Appendix "E" will be studied and considered by the time of signing of the Records of Discussion and Exchange of Notes between the two Governments.

The meeting was held in the spirit of cordiality,
cooperation and understanding.

Signed

Signed

Mitsu Kimata

(NITSU KIMATA)

Leader

Preliminary Survey Team
for NIPPON NYSEI Japan

E.A. Idwasi

(E.A. IDWASI)

Deputy Secretary

Office of the President
The Republic of Kenya

7th March, 1985, Nairobi, the Republic of Kenya

7/3/85

MK

APPENDIX A

CONSTRUCTION PLANT TECHNICIANS

1. Air Compressor

2. Steam Cleaner

3. Arc-welding equipment

4. Gas-welding equipment

5. Drilling machine

6. Grinder

7. Shaping machine

8. Bulldozer

9. Motor grader

10. Motor scraper

11. Hydraulic press

12. Hydraulic Jack

13. Tools

14. Measuring tools

15. Teaching materials

M

B

MECHANICAL ENGINEERING

1. Surface grinding machine

2. Carbide tool grinder

3. Surface tester

4. Universal testing machine

5. Hardness tester

6. Lathes

7. Shaping machine

8. Milling machine

9. Sawing machine (Band saw type)

10. Upright drilling machine

11. Compressor

12. Boiler

13. Tools

14. Measuring tools

15. Teaching materials

MOTOR VEHICLE TECHNICIANS

1. Brake tester

2. Side slip tester

3. Speed meter tester

4. Head light tester

5. Load meter

6. Valve seat grinder

7. Valve refacer

8. Fuel injection pump tester

9. Engine scope

10. Tyre changer

11. Car washer (hot jet)

12. Wheel balancer

13. Tools

14. Measuring tools

15. Teaching materials

RADIO, TELEVISION AND ELECTRONICS TECHNICIANS

1. Radio Set

2. TV set (B/White and Colour)

3. Record Player

4. Oscilloscope

5. Transistor circuit training device

6. Electronic circuit training device

7. Logic circuit training device

8. Pulse circuit training device

9. D.C. power supply

10. Micro-computer

11. Pattern generator

12. Rectifier

13. Tools

14. Measuring tools

15. Teaching materials

MAIN ELECTRICAL INSTALLATION

1. M_rG Set (Motor Generator Set)

2. Motor

3. Transformer

4. Rectifier

5. Dryer

6. Winding machine

7. Pipe bender

8. Pipe threading machine

9. Insulation tester

10. Refrigeration (House hold)

11. Air conditioner

12. Induction regulator

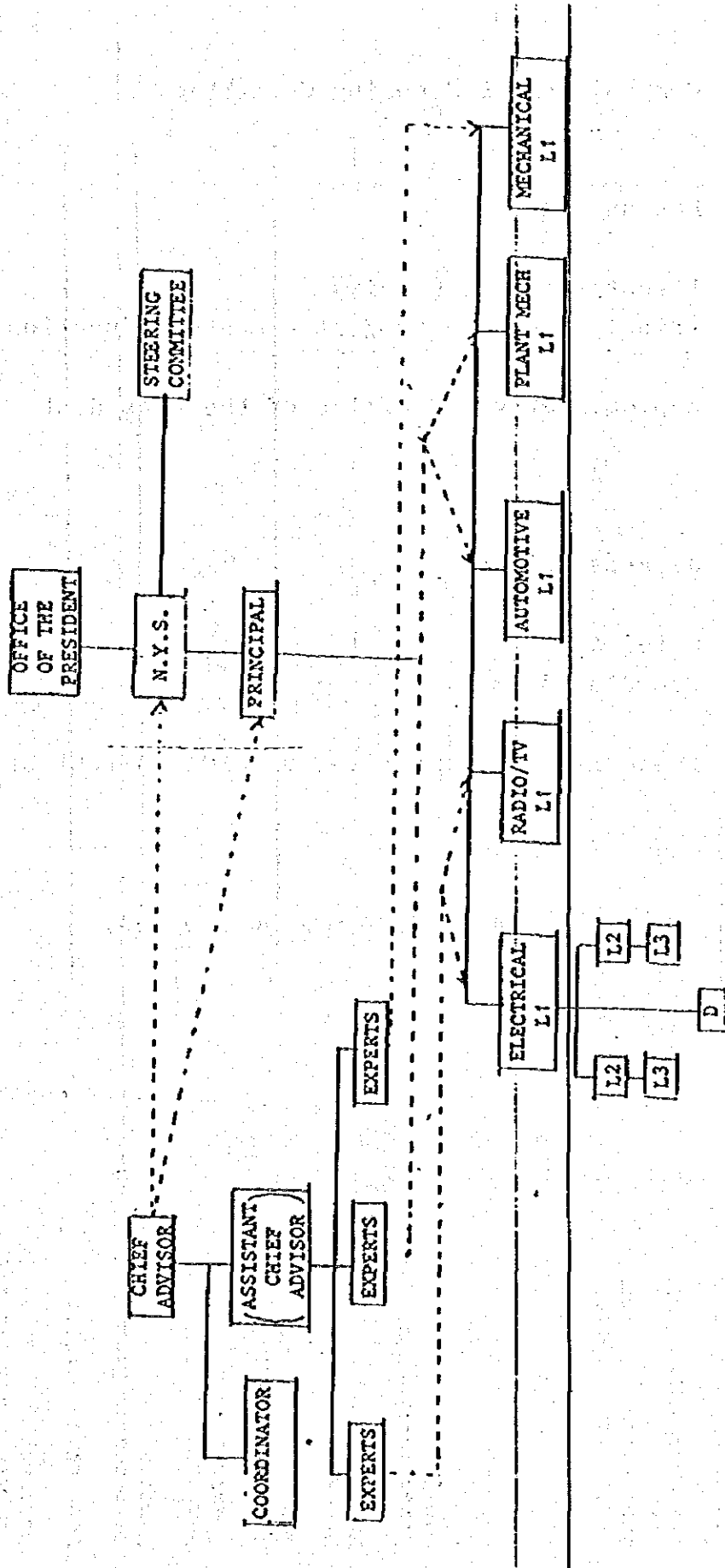
13. Tools

14. Measuring tools

15. Teaching materials

ORGANISATIONAL STRUCTURE OF NIPPON NYS ENGINEERING INSTITUTE

Appendix B



Composition of Steering Committee

Kenyan side:

Director of NYS (Chair)

Principal of the Project - Senior Education Officer

Representative of Office of the President

Japanese side:

Chief Adviser

Coordinator

Resident Representatives of JICA Nairobi Office

Such other members as may be coopted.

TENTATIVE IMPLEMENTATION SCHEDULE OF NIPPON NYSEI

Appendix C

	1985	1986	1987	1988	1989	1990	1991
Preliminary Survey Mission	—						
Implementation Survey Mission		—					
Term of Cooperation		—					
Despatch of Japanese Experts		—					
Recruitment of Kenyan Counterpart		Jan. Mar.					
Technical Training of Kenyan C/P in Japan		Mar.					
Provision of Auxiliary Equipment			—	—	—	—	—
First Intake (Opening Ceremony)			— July				
Appendix D							
Preliminary Survey Mission	—						
Basic Design Study Team	—						
Draft Final Report							
Explanation Mission	—						
E/N (Exchange of Note)							
Construction		—	—				
Provision of Machinery			—				

Handwritten signature

MEASURES TO BE TAKEN BY EACH GOVERNMENT FOR NIPPON NYSEI

1. Measures to be taken by the Government of the Republic of Kenya

In accordance with the laws and regulations in force in the Republic of Kenya, the Government of the Republic of Kenya will take necessary measures:

- a) to secure and clear a suitable site for the construction of facilities.
- b) to provide facilities for electricity and water supply, drainage and other incidental facilities to the site.
- c) to ensure prompt unloading and customs clearance at ports of disembarkation in the Republic of Kenya and prompt internal transportation therein of the products purchased or provided under the Japanese Grant Aid and Technical Cooperation Scheme.
- d) to exempt Japanese nationals connected with NIPPON NYSEI from customs duties, internal taxes and other fiscal levies which may be imposed in the Republic of Kenya with respect to supply of the products and services under the Japanese Grant Aid and Technical Cooperation Scheme.
- e) to accord Japanese nationals whose services may be required in connection with supply of the products and services under the Japanese Grant Aid and Technical Cooperation Scheme such facilities as may be necessary for their entry into the Republic of Kenya and stay therein for the performance of their work.
- f) to provide housing allowance in lieu of accommodation for the Japanese experts in case of inavailability of basic furnished accommodation.

- g) to grant Japanese experts and their families in the Republic of Kenya privileges, exemptions and benefits (excluding those mentioned above) no less favourable than those granted to experts and their families of third countries working in the Republic of Kenya under technical cooperation scheme.
- h) to undertake to bear claims, if any arises, against the Japanese experts assigned to the project, resulting from occurring in the course of, or otherwise connected with the discharge of their official functions in the Republic of Kenya except for those arising from the wilful misconduct or gross negligence of the Japanese experts.
- i) to secure expenses necessary for transportation within the Republic of Kenya of machinery, equipment and other materials provided under the Japanese technical cooperation scheme as well as for the installation, operation and maintenance thereof.
- j) to secure the necessary expenses for the maintenance and operation of machinery and equipment provided under the grant aid scheme.
- k) to maintain supply and replace machinery, equipment, instruments, vehicles, tools, spare parts and any other materials such as training materials, furniture, etc., necessary for the implementation of the project, other than those provided under the Japanese grant aid and technical cooperation scheme.
- l) to provide transport/mileage and other allowance as to Japanese experts for internal travelling on official duties.
- m) to secure all operating expenses necessary for the implementation of the project, which are as follows:

- i) Personnel costs (i.e. salaries and allowances of Kenyan personnel).
 - ii) Office supplies costs.
 - iii) Public utilities cost (e.g. electricity and energy cost, water charges).
 - iv) Maintenance cost of buildings and facilities.
- n) to ensure services of the Kenyan counterpart personnel and administrative personnel, necessary for effective implementation of the project.

2. Measures to be taken by the Government of Japan

- a) to provide buildings, facilities, machinery, equipment and other materials necessary for the establishment of NIPPON NYSEI after the study by the Basic Design Team and the Kenyan Authorities concerned.
- b) to secure services necessary for the provision of those mentioned in (a) above (i.e. consultant's services necessary for design and supervision of the construction as well as other services necessary for transportation, construction and installation of machinery, equipment and other materials).
- c) to despatch Japanese experts.
- d) to receive the Kenyan personnel connected with the project for technical training in Japan.

第9章 訓練計画の概要

すでに第2章ケニア側からの要請経緯の項で述べたとおり、1979年10月に示された「NYS訓練事業の長期拡大案」を出発点として1982年11月には、ケニア独立20周年記念のプロジェクトとして日本に協力要請が提出された。また、1983年2月には、職業訓練部門に絞り定員600人の案に改定され、その後1984年2月に派遣された事後調査ミッションへ更に定員300人に絞った案が提出され、1984年11月のコンタクトミッションへ事前調査の対象となる案が手交された。

この案によれば、NYSでは1982年に7,000人であった定員を10,000人へと増員(1984年)を計画中であり、このうち5,000人を国家建設業務にたずさわらせる一方、5,000人を訓練する必要があるとしている。ところが、現状の訓練施設では、2,303人が最大であり、5,000人の残り2,697人分の不足となっている。このため、訓練対象者は27ヶ月間、国家建設業務を継続しながら訓練施設があくまで待機せざるを得ない状況にある。NYSではこの待機期間を18ヶ月に短縮すべく努力を重ねているところである。この点から、今回要請のテクニシャンレベルの訓練校が果たす役割は大きいというものである。

その職業訓練に係る要請内容の概略は次のとおりである。

(1) 目的

テクニシャンレベルの職業訓練を実施し、NYSサービスマン(女性も含む)の職業能力を向上させ、就業状況を改善するとともに国家の社会・経済発展に資する。

(2) 訓練コース及び定員

コース名	定員(人)	
	年	トータル
Mechanical Engineering	20	60
Automotive Engineering	20	60
Electrical Engineering	20	60
Plant Engineering	20	60
Radio/television/Electronic Engineering	20	60
合計	100	300

(3) 訓練期間 3年

(4) 入校資格

12年教育終了者(教科の成績区分あり)又はこれと同等の者(Outstanding Final Craft Certificate Achievement and Progress of Craft Apprentices)

(5) 卒業までに得る資格

テクニシャン資格 Part I 及び Part II

(6) 訓練方法

ケニア工業訓練法(The Industrial Training Act)に定める次のパターンを使用する。

- | | | |
|----------|---|--|
| 1st Year | - | 6 Months in-plant training
3 Months craft orientation
3 Months in-plant training |
| 2nd Year | - | 13 weeks theoretical training
13 weeks In-plant training
13 weeks theoretical training
13 weeks In-plant training
Technician Part I Examination. |
| 3rd Year | - | 13 weeks theoretical training
13 weeks In-plant training
13 weeks theoretical training
13 weeks In-plant training
Technician Part II Examination |

(7) シラバス

KNEC (Kenya National Examinations Council) の定めた次のシラバスを使用する。

1. 1022 Motor Vehicle Technician Course
2. 2022 Telecommunication Technician Course
3. 257 Refrigeration Technician Course
4. 280/281 Electrical Engineer Course
5. 280-285 Main Electrical Installation Technician Course
6. 1025 Construction Plant Technicians Certificate
7. 1021 Mechanical Engineering Technician Certificate

(8) 運 営

- ① 日本人チームリーダーにより管理することとするが徐々に校長にその権限を移行する。
- ② 各科は日本人専門家(5人)を科長とする。
- ③ 日本人専門家の下にケニア人講師2名及び補助講師2名を配置する。
- ④ 保守関係専門家1名

このプロポーザルを基本として、現地調査を実施した。

9-1 開発計画の概要

第1次5ヶ年計画	1966年～1970年
" 2 "	1970年～1975年
" 3 "	1975年～1979年
" 4 "	1979年～1983年
" 5 "	1983年～1988年

現在第5次5ヶ年計画中であり、その主要目標は、①GDP実質成長率年平均4.8%の達成、②雇用機会を年平均3.8%で増大させる、③輸入超過額をGDPの10.9%とする。として過去の5ヶ年計画に比べて現実味のある今までの実績値に近い値とし、年別の成長率目標をみても初年度の3.9%から最終年度の5.6%へと徐々に高める計画としており、産業別のGDP成長率目標をみると金融部門、不動産部門、その他サービス部門がいずれも6%を超え、3次産業の育成に重点を置いた計画となっている。

第5次5ヶ年計画GDP成長目標

単位：百万ケニアポンド

(82年価格, 1ケニアポンド=157ポンド)

部 門		1984	1988	年平均成長率
産 業 部 門	農 業	956.7	1,146.3	4.6%
	製 造 業	390.1	503.6	6.6%
	商 業	305.2	360.8	4.3%
	金 融 業	221.0	282.7	6.3%
	運 輸 ・ 通 信	172.2	209.7	5.0%
	不 動 産	159.1	200.9	6.0%
	建 設	114.7	126.5	2.5%
	そ の 他	155.5	203.0	6.9%
小 計		2,474.5	3,033.5	5.2%
そ の 他		697.3	836.8	4.7%
合 計		3,171.8	3,870.3	5.1%

(出典：Development Plan, 1984~88)

部門別投資額（1984年～1988年）

単位：百万ケニアポンド

（82年価格，1ケニアポンド=1.57ポンド）

部 門	投 資 額	割 合
農 業	572.5	11.9%
製 造 業	771.9	16.0
運 輸 ・ 通 信	938.9	19.5
不 動 産	489.0	10.1
政 府	631.6	13.1
そ の 他	1,415.1	29.4
合 計	4,819.0	100.0

（出典：Development Plan, 1984～88）

教育関係では、中学校以上でみると、1963年当時27,000人定員であったものが1981年には46,500人となり、中等技術教育では1,500人であったものが9,000人となり、ポリテクニクレベルでは650人が4,400人と成長してきた。第5次5ヶ年計画中でもこれらを更に改善し、中学校では定員増、費用軽減を、技術教育では10,200人までの定員増及び、より市場性のある技能やより高度な訓練に耐えうる技能訓練を要求し、ポリテクニクレベルでは、科学・技術系卒業生の質的向上を求めている。

また、雇用関係をもみても、その技能力の不足が就職機会を阻害していると指摘されている。

9-2 訓練計画の妥当性

以上述べてきたように、国レベルの開発計画でも技能・技術教育の必要性は大きく謳われている。一方、今回要請の訓練科のうち、整備関係のものについては、それらと関連する製品の現状も判断に大きな影響を与えるものと考えられる。今回の調査中には、それら製品の全体数を把握することはできなかったが、ケニア国の現状をみると輸入量から推定が可能と判断している。下表は外務省中近東アフリカ局アフリカ第二課発行のケニア共和国概要より抜粋した資料である。

主要品目グループ別貿易推移

(単位：1,000ケニア・ポンド)

(1) 輸 入

	1979年	構成比 (%)	1980年	構成比 (%)	1981年	構成比 (%)	1982年	構成比 (%)
食料と飲物	32,884	5.3	41,261	4.3	44,096	4.7	52,658	5.6
原 材 料	179,736	29.0	261,570	27.3	259,476	25.7	224,363	23.7
鉱物性燃料	147,285	23.7	322,403	33.6	345,008	37.0	379,532	40.2
機 械	125,107	20.2	154,613	16.1	165,312	17.7	158,800	16.8
輸 送 機 器	94,877	15.3	121,146	12.7	88,086	9.5	85,379	9.0
消 費 材	39,621	6.4	57,740	6.0	47,554	5.1	43,333	4.6
雑 貨	647	0.1	297	—	2,310	0.3	1,142	0.1
合 計	620,156	100.0	959,030	100.0	931,842	100.0	945,207	100.0

(注) 1981年、82年の数値は暫定値

主要輸入品目の動向

(単位：百万ケニア・ポンド)

	1979年	1980年	1981年	1982年
原 油	120.29	281.72	312.77	347.94
車両とシャーシー	45.12	67.56	44.91	38.41
農機具とトラクター	7.57	10.16	11.59	10.97
産 業 機 械	113.25	145.42	152.04	149.28
鉄 鋼	37.63	50.47	36.94	40.64
綿 織 物	0.41	1.16	0.29	0.09
合 織 織 物	1.88	2.25	2.71	1.61
紙 ・ 同 製 品	12.30	12.91	14.35	11.95
医 薬 品	11.23	15.90	17.69	18.34
肥 料	5.34	15.84	24.07	15.61

(注) 1982年の値付は暫定値

これによれば、今回要請の関係製品のみで見ると1982年に全輸入量の30.4%にも及ぶことになり、年々、国内での総量が増加することがうかがえ、これら製品のメンテナンス、整備は重要な課題となる。

この意味で今回要請の訓練料は、第5次5ヶ年計画とも合致したものであり、メンテナンス

や整備にたずさわる技能者をどんどん養成する必要がある。この場合、直接これらの作業にたずさわる技能者を養成するばかりでなく、その上に立つ熟練技能者、監督者の養成も忘れてならないものである。

NYSでは、上級技能訓練センターを最上級として、各地で職業訓練を実施中であり、その総数は2,303人である。今回要請のセンターはNYS内部に位置し、入校対象者はNYS在籍者に限定されるため、ここではNYS内部より前述のデータ等と比較しながら論を運ぶ必要があるのではないと思われる。

NYSの性格、詳細なデータについてはすでに述べられているので重複は避けるが、中でも国家建設あるいはNYS内部の職業訓練を終了してからの就職については全く保障されていないという点は特筆に値する。従って、新しいプロジェクトが実施されたとしても、その就職に関する限りではNYSに在籍したということが条件に加味されたとしても、その他は一般の学校を出た者と同様となる。この意味で、国家全体からみればやはりただ単にNYSに在籍したということだけではなく、職業訓練も併せて受講したということが就職の条件を良くするとともに、技能・技術を身につけた卒業生の輩出が必要となるのである。

一方、NYSにおける今までの上級技術訓練センターを上回るレベルのテクニシヤンの養成ということが、国全体の技能・技術者の養成というニーズに合致するばかりでなく、NYSの内部にとっては、これが産業界に巣立つのみならず、指導者として成長するとの期待もあり、上級技術訓練センター等の既存の職業訓練校のレベルアップにもつながるものともなる。

9-3 訓練計画の概要

事前調査団とケニア関係者との討議を通じ、概略次のような訓練マスタープランを作成し合意した。

1. 訓練のマスタープラン

(1) 訓練コース

	訓練生総数	入校者数/年
機 械 科	60人	20人
自 動 車 整 備 科	60人	20人
建 設 機 械 整 備 科	60人	20人
電 気 科 (電 気 工 事)	60人	20人
電 子 科 (ラ ジ オ ・ テ レ ビ 修 理)	60人	20人
合 計	300人	100人

(2) 訓練期間

3 年

(3) 卒業時の資格

テクニシャン資格 Part II 受験資格

(4) 入校資格

〇レベル以上の保持者又はこれと同等と認められる者

(5) 各科の訓練目標

○ 機械科

訓練生は、訓練修了時に、下記の分野に係る十分な技能と関連知識を有すること。

- ① 旋盤、フライス盤等の工作機械による金属材料の切削加工、研削加工。
- ② 手工具による機械部品等の仕上げ。
- ③ 機械の保守及び据付。

○ 自動車整備科

訓練生は、訓練修了時に、下記の分野に係る十分な技能と関連知識を有すること。

- ① 自動車整備に必要な機械及び器工具の取扱い。
- ② 自動車の点検、分解、組立て、調整及び修理。

○ 建設機械整備科

訓練生は、訓練修了時に、下記の分野に係る十分な技能と関連知識を有すること。

- ① 建設機械整備に必要な機械及び器工具の取扱い。
- ② ブルドーザ、モータグレーダ等の建設機械の点検・調整、分解・組立て及び修理。

○ 電気科

訓練生は、訓練修了時に、下記の分野に係る十分な技能と関連知識を有すること。

- ① 電気照明設備及びその関連設備の配線作業並びに一般の電気機器の修理。
- ② 制御盤及び電気機器の配線、巻線、分解、組立て、絶縁及び調整。
- ③ ウインド形エアコン、家庭用冷蔵庫等の据付及び整備。

○ 電子科

訓練生は、訓練修了時に、下記の分野に係る十分な技能と関連知識を有すること。

- ① ラジオ・テレビ等の電子応用機器の分解、組立て及び調整。
- ② 電気・電子計測機器を使用する測定。
- ③ マイクロコンピュータの取扱い。

(6) 関連シラバス及び選択

COURSE	NO	TITLE	SPECIFICATION
1. Mechanical Engineering (機械科)	1021	Mechanical Engineering Technician Certificate	Plant maintenance and work services
2. Motor Vehicle Technicians (自動車整備科)	1022	Motor Vehicle Technicians Course	-
3. Construction Plant Technicians (建設機械整備科)	1025	Construction Plant Technicians	-
4. Main Electrical Installation Technicians (電気科)	280- 285	Main electrical Installation Technicians Course	-
5. Radio, Television and Electronics Technicians (電子科)	272	Radio, Television and Electronics Technicians Course	Radio and Television Theory and Practice Electronics Theory and Practice

(7) 訓練用機材

MECHANICAL ENGINEERING

1. Surface grinding machine
2. Carbide tool grinder
3. Surface tester
4. Universal testing machine
5. Hardness tester
6. Lathes
7. Shaping machine
8. Milling machine
9. Sawing machine (Band saw type)
10. Upright drilling machine
11. Compressor
12. Boiler
13. Tools
14. Measuring tools
15. Teaching materials

MOTOR VEHICLE TECHNICIANS

1. Brake tester
2. Side slip tester
3. Speed meter tester
4. Head light tester
5. Load meter
6. Valve seat grinder
7. Valve refacer
8. Fuel injection pump tester
9. Engine scope
10. Tyre changer
11. Car washer (hot jet)
12. Wheel balancer
13. Tools
14. Measuring tools
15. Teaching materials

CONSTRUCTION PLANT TECHNICIANS

1. Air compressor
2. Steam Cleaner
3. Arc-welding equipment
4. Gas-welding equipment
5. Drilling machine
6. Grinder
7. Shaping machine
8. Bulldozer
9. Motor grader
10. Motor scraper
11. Hydraulic press
12. Hydraulic Jack
13. Tools
14. Measuring tools
15. Teaching materials

MAIN ELECTRICAL INSTALLATION

1. M.G. Set (Motor Generator Set)
2. Motor
3. Transformer
4. Rectifier
5. Dryer
6. Winding machine
7. Pipe bender
8. Pipe threading machine
9. Insulation tester
10. Refrigeration (House hold)
11. Air conditioner
12. Induction regulator
13. Tools
14. Measuring tools
15. Teaching materials

RADIO, TELEVISION AND ELECTRONICS TECHNICIANS

1. Radio Set
2. TV set (B/White and Colour)
3. Record Player
4. Oscilloscope
5. Transistor circuit training device
6. Electronic circuit training device
7. Logic circuit training device
8. Pulse circuit training device
9. D.C.power supply
10. Micro-computer
11. Pattern generator
12. Rectifier
13. Tools
14. Measuring tools
15. Teaching materials

以上は、ミニッツに書かれた訓練内容を抜すい仮訳したものであるが、ここでは、多少の説明を付け加えておきたい。

- (1) 各科の訓練目標を定めるに当っては、卒業時に得られるテクニシャン Par II の受験資格の関係及び NYS の意向、社会のニーズを勘案し、検討した。
- (2) 関連シラバスについては、テクニシャン Part II 受験資格を得るために必要な内容を網羅するため K I E (Kenya Institute of Education) の定めたシラバスを無視することはできない。そこで、どのシラバスが、今回要請のプロジェクトの内容と合致するか、最新のものはどれかといった検討を踏まえて、上記に示すように合意した。なお、Specialization としているのは、K I E のシラバス内に選択肢のあるものであり、どの選択肢を選ぶかをあらかじめ決めておかないと訓練目標、訓練内容、機材選択等、影響が大きいため確定しておくこととした。

このシラバスは、K I E が作成設定し K N E C が実施するものであるが、一部関係訓練科のシラバスが改訂されたということ及び今年度中にも全体的見直し作業に着手するとの情報もある。各職種の内容が大幅に変更になることはないと思えるが、追跡調査を要するところである。

シラバスは内容的には、学科を各学校又は訓練校で実施し、実技は学生又は訓練生の所属する工場等での工場実習で修得させるという学科に重点を置いたサンドイッチ方式を採用している。これに対し、今回要請のプロジェクトにおいては、学科のみならず、従来工場実習で処理していた実技訓練も訓練校内で実施していこうというものであり、実技訓練の内容も十分管理できることとなる。幸い、この点に係るシラバスの言及が少ないこともあり、実技訓練の内容は独自に相当裁量のできるものと思われる。

- (3) 入校資格については、NYS に在籍する者の中から選抜されるものであり、ここに記された条件を満足する者でなければならない。この意味では、全く、他のテクニシャンレベルを目標とする学校等と競合するものではない。ただ単に 'O' レベル以上の者としなかったのは、NYS 側の対象者に許される範囲でできるだけ柔軟性を持たせたいとの意向をくんで追加したものである。例えば、技能検定 1 級保持者 (Final Proficiency Craft Certificate) がこれに該当する。

また、'O' レベル保持者に対して技能検定 1 級保持者はその内容からみて、第一学年をスキップして第二学年からスタートするなどの考えも出された。一応、うなずけるものではあるが、反対に技能検定 1 級保持者の数学等の能力が阻外要因ともなりかねないので、実施段階では、この点を加味した訓練計画上の配慮が必要となろう。

- (4) 訓練生の定員については、当初要請より実現可能な数字に変更しており、各科各学年 20 名というのは、訓練実施上全く問題のないものであり、そのまま採用した。
- (5) 訓練用機材については、ケニア側より本プロジェクト実施上に必要と思われるリストが

提出された。この主要部分は無償資金協力によりカバーされることとし、技術協力による機材供与はその補完的部分にとどめる旨了解された。なお、このリストには、各訓練科毎に全てを網羅したものではなく、主要なもののみが掲げられている。また、仮にK I Eによりシラバスの改定が行われたとしても、各訓練科の内容が大幅に変更されることはあり得ないため、内容的にはほとんど影響を受けないものと思料される。

第10章 建物、施設、インフラ整備状況

10-1 サイトについての考察

NYSEIの建設場所についての現状をサイト位置図、敷地図に示すが下記に補足及び考察することとする。

- (1) サイトはナイロビの中心地からTHIKA ROADをTHIKA に向って約7kmの所にあり、NYS本部と800m位の距離に予定されていること。
- (2) この予定地は前建設会社の土地をNYSが買取ったもので68,920㎡の面積があること。
- (3) 敷地面積が68,920㎡の為予定されている5訓練科を建設するのに十分の広さと思えるが、このうち約25,000㎡は1～1.2mの段差があり、残りの約44,000㎡の所に管理棟、教室棟、実習場等の配置を考え、一部建物は下段の敷地に建設することになると思われること。
- (4) サイト迄の進入道路は巾が8m位で全部アスファルト舗装道路で確保されており、工事等に支障のないこと。
- (5) サイト南側の境界ラインがフェンスより約20mの所にあり確認を要すること。
- (6) サイト裏の道路をはさんで、隣接地に34エーカーの平坦な政府所有地があり、建物配置又は使用勝手によっては、NYSに対し(予算年次の関係もあるが)購入するよう働きかけも可能と思えること。
- (7) 敷地内に段差及び勾配があり建物配置で工夫が必要と思われるが第1として現在の敷地で建設(現有施設とりこわし)、第2として現有建物の有効利用を考慮し建物配置、第3としては隣接地を含め建物配置等考えられるが経済的にみると、現在の敷地で現有建物の有効利用を考えて配置する必要があると思われる。

10-2 建物についての考察

建物の設計に関し、全般的事項及び建物別事項について考慮すべき事項等について記すこととする。

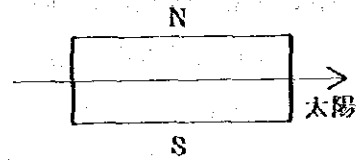
◎ 全般的事項

- (1) 本報告書冒頭部の図に示すように現有建物として倉庫、ガレージ、スタッフハウス、プール等があること。
- (2) 上記のうち1戸建スタッフハウスは庭も含め約4,000㎡あるが現地側の要望と構造的にしっかりした建物であるため残すこととする。
- (3) 1戸建スタッフハウスの前に使用可能なプールがあり、現地側はとりこわす許可は得ているが建物配置によっては利用することも考えられること。
- (4) レイアウトを工夫することにより倉庫等の棟は残し、図書館、材料倉庫等の転用も考え

られること。

(5) 建設機械整備科があるため、下段の方の土地に約 2,000 m²の運転場（舗装の必要はなし）を確保する必要があること。

(6) 建物の向きは、赤道直下のため南向き等の日照を考慮する必要はなく東西の長手にすること。



(7) ケニアにおけるテクニシャン PART I, II の訓練は現在

ポリテクニク等で実施されており、訓練の全期間の半分は企業における O. J. T であるが、この NYSEI は企業での訓練は考えなく全部センター内にて行うので、実習場の使用ウェイトが非常に高く、実習場建物の効率的使用を十分考慮して設計する必要があること。

(8) 電子科及び電気科は砂ほこり、保守等考えて RC 構造が望ましいこと。

(9) 6,8920 m²の敷地内において、居住エリアと訓練エリアは段差のあるところで、区分することが望ましいこと。

(10) ケニアにおける建築基準法及び NYS の他の施設の面積表（管理棟、図書館等）を基本設計ミッション訪ケニア時に提出するよう指示してあること。

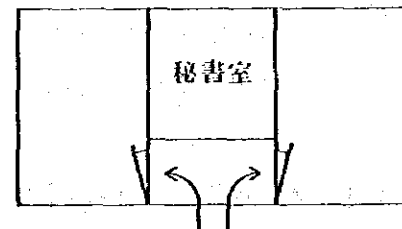
(11) 電気、上下水道、進入道路等は最近迄建設会社の所有していたものであり、引込み等の問題は無いと思料されること。

◎ 建物別事項

無償資金協力ということもあり下記に考案した全棟について建設するという意味ではないこと。

(1) 管理棟について

○ 校長室、副校長室、チーフアドバイザー室と各々に秘書室が必要、これはナイロビのポリテクニクとか大統領府オフィス等全部が図のように2部屋の間に秘書室を配置している。



○ 会議室は、全体職員での会議用及び小人数での会議用として少なくとも2部屋は必要であること。

○ 庶務や経理関係の事務室、印刷室が必要であること。

○ NYSEI の訓練生は全寮ということで管理棟内での庶務関係手続等も多いことから訓練生が手続等で使用のスペースが50 m²位は必要と思われること。

(2) 実習棟について

○ 電気、電子、自動車整備、建設機械、機械科の5科分が必要であるが、建物の構造、高さ、訓練内容等の関係で電気科と電子科で1棟、自動車整備科と建設機械科で1棟、機械科で1棟の3棟とすることは差しつかえないと思われること。

- K I E (Kenya Institute of Education) のシラバスから共通なものとして溶接作業があるため、関係科共通として使用出来る溶接エリアを作る必要があること。
- 各々の棟の内部に更衣室、倉庫、工具室、実習場教室、実験室又は測定室及び指導員室等設置する必要があること。特に指導員室は技術移転をより効果的にする為カウンターパートと日本人専門家は同室とすることが望ましいこと。
- 共通倉庫、ガレージ等も設置する必要があること。

(3) 教室棟

- 教室における面積は、訓練生1人当たり2㎡以上とし各科2教室×5科の計10教室は必要であること。
- 全科が共通して使用出来る製図教室、視聴覚教室、大教室が必要であること。

(4) 図書館

- 教室棟に入れるかどうか考慮の余地はあると思われるが、訓練生300人が同時ではなくとも、利用出来る面積とすること。

(5) 食堂

- 食堂はケニアにおける他の施設においても職員用と訓練生用はエリアを区別してありこの施設においても同様とすること。
- 付属して倉庫、サービスヤード、トイレ等必要であること。

(6) 寄宿舍

- 1部屋2人の訓練生でランドリー、廊下、トイレ等共通部分を含めると、1人当たり約11㎡必要であること。
- 現地においては、話しのなかにJKCATがでるが、JKCATは大学ということもあり、1部屋2人となっているがNYSEIにおいては1部屋2人以上を検討する必要があること。

(7) スタッフハウス

- ケニアにおいては建設省においてスタッフハウスの基準が定められており、例としては下記のようになっている。

HOUSE TYPE B	1戸建	213.1㎡
HOUSE TYPE C	1戸建	117.7㎡
HOUSE TYPE D	1戸建	86㎡
HOUSE TYPE E	2 STORY HOUSE	56.7㎡

各々学長クラス、部長クラス、教授クラスというようにクラス別となっている。

10-3 建物建設にかかる現地側要望事項

項 目	機 能 内 訳
① 管 理 棟	<ul style="list-style-type: none"> ◦ 校長室，副校長室，チーフアドバイザー室及び各々に小会議室 ◦ 会議室，秘書室，待合室，事務室等
② 実 習 棟	<ul style="list-style-type: none"> ◦ 電気，電子，自動車整備，建設機械，整備科の5科 ◦ 内部に更衣室，倉庫，工具室，指導員室，実習場教室，実験室等
③ 教 室 棟	<ul style="list-style-type: none"> ◦ 各科教室，製図教室，視聴覚教室，大教室等
④ 図 書 館	
⑤ 食 堂	<ul style="list-style-type: none"> ◦ 職員用，訓練生用
⑥ 寄 宿 舎	<ul style="list-style-type: none"> ◦ JKCAT仕様
⑦ スタッフハウス	
⑧ レクリエーションホール	
⑨ プレイグラウンド	

第11章 関連施設の概要

11-1 NYS Yattaプロジェクト

このプロジェクトは、NYS Plant Operation and Mechanics School, Agriculture School, 農場及び道路建設の現場で構成され、全体で2,000人が勤務している。農場ではコーヒーの栽培から刈入れそして梱包を行い主として輸出用として出荷されている。見学した時点では、工場は稼働してなく、4月頃の刈入れを待っているところであった。

次に、農場以外のプロジェクトについて簡単に記す。

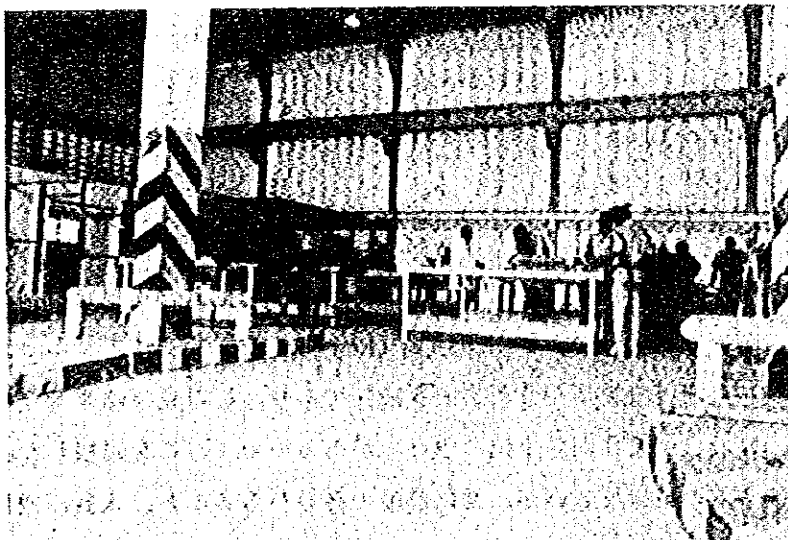
(1) NYS Plant Operation and Mechanics School

この訓練校では、下表に示す訓練を実施できることになっている。

Department	資格	期間	クラス数
Plant Mechanic	Grade III	12ヶ月	3クラス
	Grade II	8ヶ月	1 "
Plant Operator	運転免許	8ヶ月	1 "
O. J. T.	—	12ヶ月	1 "
	—	8ヶ月	1 "

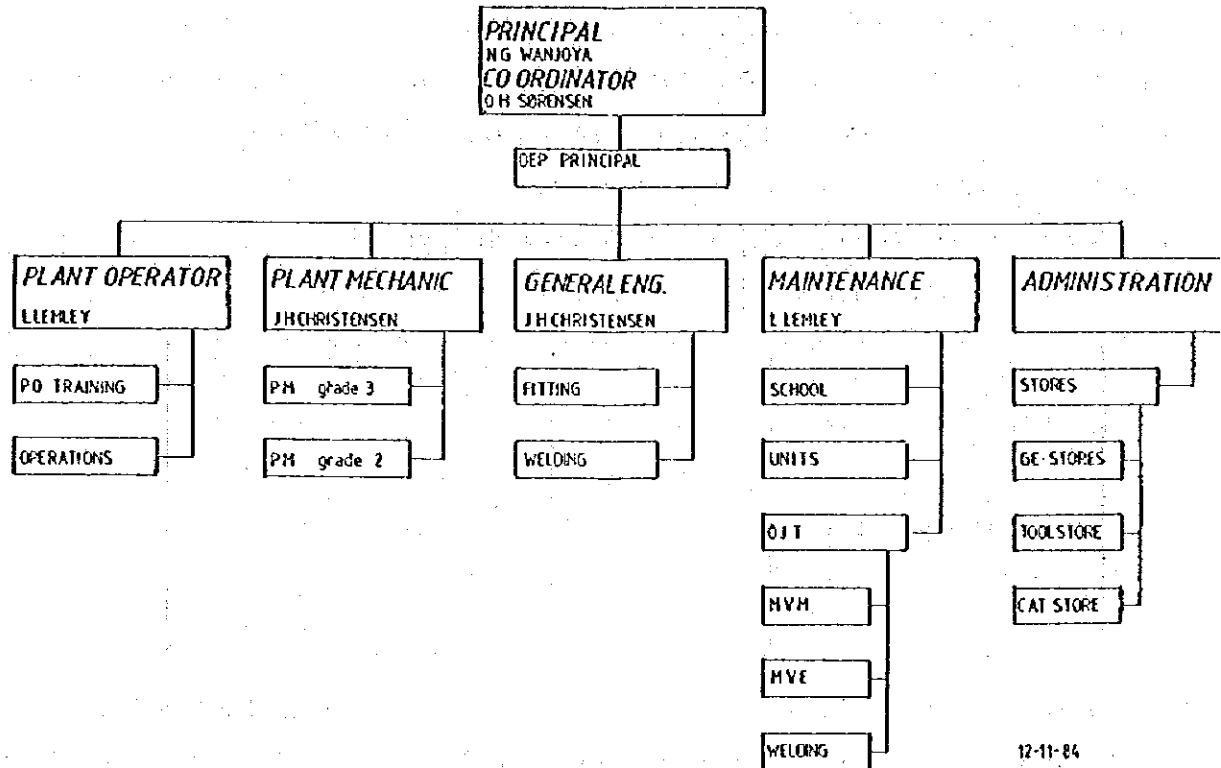
以上の7コースをケニア人スタッフ28名にスウェーデン人(DANIDA)3人を加えて運営している。ここでいう、Plant Mechanicとは建設機械(主としてブルドーザ、モーターグレーダ)の整備工を養成するものである。主な機械としては旋盤、バルブリフューサー、ボール盤、ガス溶接装置等があり、実習場には、建設機械を扱うため天井走行クレーンが設備されていた。

下の写真は、Plant Mechanicコースの実習風景であるが、全員作業服に身をかため整然と実習が行われていた。



次に当校の組織図及びO. J. T コースを除いたコース運営の予定表を掲げる。

組 織 図



(2) NYS Agriculture School

今年(1984年)よりスタートしたところで農業及び動物飼育について教えている。現在は1クラス15名が入校しているが、他に2クラス25名を募集中である。訓練校は(1)のNYS Plant Operation and Mechanics School と同一敷地内にあり、農業等は時述のコーヒー農場のエリアを共用している。

(3) 道路建設プロジェクト

ここで行われているプロジェクトはThika—Carissa Roadの建設であり、1期分68kmを完了し、2期分68kmのうち10kmまで終了しているとのことであった。残念ながら建設現場は訪問した現場事務所から更に78km先であり、この見学は果せなかった。この現場事務所には、建設機械及び関係車両の修理場があるので、ここを視察した。本来修理場は建設現場に隣接するのが望ましいが、常に移動の必要があること、人員、機材の確保の問題も

あり、止むなくこの場所で不便を承知で作業をしているとのことである。視察当時、モーターグレーダー、スクレーパー、バックホー、ブルドーザー、バケットドーザー、ロードローラー、ダンプカー等が修理を受けていた。仮設の修理場とはいいながらエンジンの分解も行っており、機械加工を必要としない修理はここで行っているとのことであった。各部の消耗による故障の他、建設現場での事故による修理も多いとのことであった。

11-2 Mombasa Vocational Training Unit (NYS)

Artisan Grade III (技能検定3級)の取得を目指して12ヶ月の訓練が行われている。ここは、もともと英国軍の施設があった跡地ということもあり、600エーカーという広大な敷地面積があり、この中に古い建物を改造したり、新築の実習棟を加えたりして訓練施設として使用している。

実施訓練科は、自動車整備、自動車電気、電気、電子、配管、仕上げ、旋盤、木工大工、ブロック工、溶接の10コースであり、訓練生総数は852人にのぼる。入校対象者は、小学校(7年)終了者であり、3ヶ月毎に選抜の上、入校させている。コース毎の人数は20名を標準としているが、現実には、これを上まわるところもある。広大な敷地を有することもあり、インストラクター及び訓練生全員が敷地内のホステルで生活している。訓練生は卒業時にはNational Unit Leaving Certificateを取得するとともに、90%の訓練生が技能検定3級試験に合格している。また、卒業生のうち成績優秀な者はナイロビ又はシルシルの上級技術訓練センターに進み、技能検定2級、1級にもチャレンジできるシステムとなっている。

当校のMunene校長の話では総定員を1,200名に、訓練科を自動車車体整備を加えて11コースとしたいとのことであった。

11-3 Mombasa Polytechnic

テクニオン養成のための施設であり、中学校(Secondary Vocational Schoolを含む)卒業生に対し、教育を行う。学生は全て被雇用者であり、入学の際には、雇用者による授業の受講及び工場実習実施の許可を要する(ただし工場実習については、工科系コースのみ)。1年を3学期(各13週間)に区分し、毎週月曜日から金曜日まで6時限ずつの授業を実施する。ここでは、5学部26コースがあり、テクニオン及びディプロマレベルの教育を実施している。

各コース毎に入校資格、授業の実施方法は指定されていて、主として次の3種類に区分される。

① Sandwich方式

各学期毎に登校しての授業と、現場での工場実習を交互に行う。

② **Block — release**

各学年毎に 6 週間の登校しての受講を 3 回行う。

③ **Day — release**

各週毎に 1 日登校して授業を受ける。

現在実施中のコースは次のとおりである。

Department of Business Studies

Accounts Clerk's National Certificate

Certified Public Accountant

Diploma in Business Administration

Certified Public Secretary

Institute of Chartered Shipbrokers

Institute of Bankers

Kenya Institute of Management

Institute of Purchasing and Supply

Private Secretarial Certificate

Advance Private Secretarial Certificate

Department of Mechanical Engineering

Higher Diploma in Mechanical Engineering

Mechanical Engineering Technician Course

Fabrication and Welding Technician Course

Motor Vehicle Technician Course

Department of Electrical and Electronic Engineering

Higher Diploma in Electrical Engineering

Telecommunication Technicians Course

Industrial Measurements and Control Technicians Course

Electrical Engineering/Installation Course

Electronics Technicians Course

Department of Building and Civil Engineering

Construction Technicians' Course

Ordinary Diploma in Building

Ordinary Diploma in Civil Engineering

Higher Diploma in Construction

Department of Mathematics and Applied Sciences
Kenya Advanced Certificate of Education
General Science Pre-technician Course
Ordinary Diploma in Laboratory Technology

今回の視察では、5学部のうち、今回要請のプロジェクトと関連する Department of Mechanical Engineering 及び Department of Electrical and Electronic Engineering の2学部の実習場を中心に見た。設備は、Higher Diploma までの教育を行っていることもあり、かなりの種類までそろっているものの、実習は学生の所属する工場等で実施するためか、数量的には充分であるとは言えない。また、この2学部を比較すると、電気・電子部門の方がそろっているように感じた。

11-4 Kenya Polytechnic(Nairobi)

1961年 Royal Technical College の分派として設立され、前述の Mombasa Polytechnic が1970年に設立されるまでは唯一のポリテクニクとして存在していた。設立当初8学部であったが、その後の英国による建物、機械の供与、ユネスコによるケニア人スタッフの研修を経て現在では10学部55コースが運営されるまでに至った。現在ユネスコによるケニア人スタッフの研修は英国によりかたがわりされ、さかんに行われている。このため、スタッフの75%以上はケニア人が占めることとなった。

ここでの教育方法は前述の Mombasa Polytechnic と同様であり、テクニシャン及びディプロマレベルの学生を養成している。すでに24年の歴史を持ち、その卒業生は産業界のみならず、各分野で活躍している。現在、約4,000人の学生が在籍し、319人の教授陣及び352人の事務職員がこれを支えている。

基本的な入学資格は中学校卒業(同等の者を含む)であるが、各コース毎に求められる成績区分等が異なる。また、学生の選抜に当っては、特に試験を実施するのではなく、中学時代の成績及びインタビューの結果を総合して判断しているとのことであった。ちなみに入学のための倍率は、約10倍とのことである。

学生の就職は、学校が面倒を見るものではなく、本人の責任において探すことを原則としているとのこと、事務系の学生、特に会計などを専攻した学生は引く手あまただとのことである。

オカカ校長の希望では将来 Degree クラスまでもってゆきたいとのことであった。

施設の見学は、Electrical Engineering Department 及び Mechanical Engineering Department について行った。各コースとも機械は決して新しいとは言えないが、種類をよくそろえており感心させられた。特に教材類では、古い物までよく管理され、この見学

中には、今回要請プロジェクトの基礎となっている Technician Certificate のシラバスを彷彿させるものがあった。言い換えれば、この Kenya Polytechnic 及び Mombasa Polytechnic が Technician Certificate の教育の先駆者であり、この施設、機械の内容が、そのシラバスにも大きな影響を与えたであろうことが想像された。

現在実施中のコースは次のとおりである。

Department of Applied Science

- Junior Laboratory Technician's Certificate
- Junior Laboratory Animal Technician Certificate
- Ordinary Diploma in Applied Science
- Higher Diploma in Applied Biology
- Higher Diploma in Medical Laboratory Technology
- Higher Diploma in Applied Chemistry

Department of Building and Civil Engineering

- Junior Building Supervisor
- Construction Technician Part II
- Ordinary Diploma in Building
- Ordinary Diploma in Civil Engineering
- Ordinary Diploma in Cartography
- Ordinary Diploma in Water Engineering
- Ordinary Diploma in Land Surveying
- Higher Diploma in Construction
- Higher Diploma in Water Engineering

Department of Business Studies

- Certified Public Accountant Part I
- Diploma in Business Administration
- Diploma in Medical Secretary
- Diploma in Legal Secretary
- Diploma in Personal Assistant

Department of Electrical Engineering

- Electrical Engineering Technicians Part II
- Ordinary Diploma in Electrical Engineering
- Electrical Engineering Technicians Part III
- Radio, TV, Electronics Part II
- Higher Diploma in Electrical Engineering

Radio, TV, Electronics Part III
Telecomms Technicians Part II
Telecommunications Technician Part III
Electrical Installation Technician's Certificate Part II
Electrical Installation Technician's Certificate Part III
Electrical Installation Craft Part II Certificate

Department of General Studies

Certificate in General Photography

Department Graphic Arts

Certificate in Estimating for Printers
Certificate in General Technical Knowledge in Printing
Certificate in Proof Reading
Certificate in Graphic Design
Certificate in Letter Assembly
Certificate in Book Binding
Diploma in Graphic Design
Certificate in Printing Production Management
Certificate in Graphic Reproduction
Certificate in Machine Printing

Department of Institutional Management

Abridged Certificate in Institutional Management
Ordinary Diploma in Institutional Management

Department of Library and Archival Studies

Library Assistants Certificate
Archives Assistants Certificate

Department of Mechanical Engineering

Agricultural Mechanical Part II
Agricultural Engineering Technician Part I
Agricultural Technicians Part II
Mechanical Engineering Part II
Motor Vehicle Technician's Certificate
Mechanical Engineering Production Part III
Construction Plant Technician Part II
Higher Diploma in Mechanical Engineering

11-5 Jomo Kenyatta College of Agriculture and Technology

農業及び工業の分野における地方の開発、発展に寄与するテクニシヤンの養成を目的として、日本の無償資金協力、プロジェクト方式技術協力を導入して設立された。農学部と工学部があり、前者は3年間のコースでNational Diplomaを、後者は4年3ヶ月のコースでTechnician Certificate Part IIIの取得をめざしている。5年間にわたるプロジェクト方式技術協力は昭和60年4月18日終了の予定であったが、昭和63年4月18日まで延長されることとなった。従って、現在も協力中のプロジェクトでもあり、詳細は当該プロジェクトの報告にゆずることとする。

第12章 生活事情

ケニア(人口約1,530万人)は、アフリカ大陸の東中央部、インド洋に面した赤道直下の国であり地勢は、海岸地方から内陸に向かって次第に標高が高くなり、首都ナイロビ(人口約83万人)は海拔約1,700mの高原地帯で、国土面積は約58万平方キロと日本の約1.6倍である。

1. 気 候

ナイロビは赤道直下であるにもかかわらず高原地帯であるため、気温は10～30℃で(表参照)、年間の降雨量も平均926mmと少なく過しやすいといえる。雨期は4月～6月までの大雨期と11月～12月の小雨期があるが1日中降り続くことはなく、2～3時間で終るのが普通である。

南半球にあるため7、8月が冬期でセーター、ストーブを必要とすることもある。12月、1月の夏期においても湿度が少ないため冷房をする必要はない。

ナイロビ市の年間気温表

		1	2	3	4	5	6	7	8	9	10	11	12
温度 (℃)	最高	25.8	26.0	27.0	28.1	24.8	23.8	22.5	24.1	26.2	26.4	24.5	25.4
	最低	10.8	11.1	17.7	13.5	13.8	11.5	10.6	10.7	11.0	13.7	13.7	12.5
湿度(%)		48	45	35	38	56	55	57	47	39	43	53	49

湿度は午後3時

2. 住 居 地

住居地は市の周辺部にあり住宅事情は悪くない。

庭付の一軒家、メゾネット(4軒続きのテラスハウス)、フラット(アパート)等それぞれ家族数、趣味等により選定出来る。庭付一軒家の場合はガードマン、庭師を雇う必要がある。ケニア在住の日本人は約750人でそのうち約90%がこのナイロビに住んでおり、上記住居を賃貸している。

3. 医 療

ナイロビ市内には、ケニヤッタ病院、ナイロビ病院、アガカーン病院、開業医(ヨーロッパ人、インド人、ケニア人)もあり医療施設は完備している。風土病的なものとしてはマラリア、破傷風がある。

4. 言 語

国語はスワヒリ語であるが、一般公的には英語が広範囲に使われている。しかし、市街地を離れるにつれて英語が通じにくくなりスワヒリ語となる。スワヒリ語は本来モンバサを始めとする海岸地方の人々の言語であるが、1974年国語として定められほぼ全国的に普及している。

5. その他

ケニアは1963年英国から独立し、人口は約1,530万で約90%が地方に住んでいる。主な種族はキクユ(2%), ルオ(14%), アバルユ(12%), カンバ(12%)等で約100種族がいるといわれており、キリスト教が多く、回教徒も若干いる。

ケニヤッタ前大統領が用いたスローガンに「ハランベ」 という合言葉があるが、これは共同でやろうという意味のスワヒリ語であり、この精神がハランベ基金をつくり、ハランベースクールを各地に建設してきている。モイ現大統領はこのハランベ精神を引き継いでおり、継承という言葉のスワヒリ語で「ニヤヨ」をスローガンにしている。町の中にあるサッカー場にも名称の前に「NYAYO」がついているほどである。

この国の主食はウガリと呼ばれ、とうもろこしの粉をお湯に入れながらかきまぜ手でちぎって食べられるくらいの固さにし、これに肉や野菜をつけて食べる。日本人がこのウガリを主食にする人はなく、ケニア米とか特定業者が加工用としてオーストラリア米を輸入したものや、好みの食品は直接日本から取り寄せている。

レストランは日本料理、イタリア、フランス、インド、中華料理などあり結構おいしく食べられる。日本料理店は日本人クラブ、赤坂の2店あり、寿し、天丼、かつ丼、うどん等もあり各々900円位である。

JICA事務所の話しによれば

- ・最低賃金法により580シリング/月 約9,300円
- ・日本人が雇う運転手賃金1,200シリング 約19,000円
- ・車は日本の約3倍
- ・ガソリン 1ℓ 9シリング 約140円

とのことである。

6. 子女教育

ナイロビには日本人学校があり、小中学校で80数名の生徒の教育を行っている。昭和45年5月設立し、その後昭和56年6月現在地に新校舎を建設竣工、敷地面積28,293㎡、グラウンド9,000㎡と鉄筋コンクリート2階延床面積1,350㎡、収容生徒数120人程度に体育館を備えた立派な学校が関係者の努力により完成移転、現在に至っている。

(1) 所在地等

- 学 校 名 在ケニア日本国大使館附属ナイロビ日本人学校
(現地名称) JAPANESE CULTURE INSTITUTE IN NAIROBI
- 所 在 地 C/O Embassy of Japan in Kenya, Langata Road, Nairobi.
P. O. Box 60202,
- 運 営 主 体 ナイロビ日本人学校運営委員会
- 設 置 者 ケニア日本人会

(2) 転学手続き

- 入学申し込み—ナイロビ日本人学校に直接申し込む
すぐ入学可能
- 入学手続き—保護者と登校し、校長と面接する。
家庭調査表を提出
- 旧在籍校か—指導要録写、建康診断票、歯牙検査票、在学証明書
ら持参する
必要書類

(3) 渡航時に所持する学用品等

ある程度の学用品は入手可能であるが、笛、ピアノ、ハーモニカ、そろばん、毛筆、墨、すずり、半紙など、日本の学用品は入手不可能である。また、参考書の日本語版は当地では入手不可能なためあらかじめ用意して来た方がよい。なお本校では制服は決めていないので自由であるが、体操服については昭和52年度に採用した。しかしその後入荷しないので紺色の上下スポーツウェア、紺の短パン（男女別にある）、白の丸首Tシャツ、体操帽、運動靴を持参した方がよい。小学5、6年生、中学生女子の家庭科裁縫セットも同様である。

本校では小学1年生から英会話授業があるので英語ノート、辞典（英和、和英）を持参してこることが望ましい（小学生は中学生用、中学生は高校生用）。カバンは特に決めていないが道具入れが必要である。遠足用のリュックや水筒もあれば便利である。本校は給食がないので各自小学1年生から弁当持参である。弁当箱、箸入れも必要である。現地校やその他の交歓行事にゆかたを着ることもあるので、できれば持参した方がよい。

《参 考 資 料》

- 現地教育施設の概況。

★幼・小・中併設校★

学 校 名 プレバン・ハウス・スクール
(幼稚園、小1～小7、中1、中2)

学校の性格 イギリス系の私立学校

学校の特色 ・主要言語 英語
・編入学時期 1月、4月、9月が適当

教科教室で1日8時間の授業をする。第2外国語として、フランス語を学習する。英語のできない児童はフランス語の時間に英語の補習をしている。算数の学習に力を入れておりテストの結果クラス編成が行われる。1月～3月、4月～8月、9月～12月の3学期制。

父兄負担費

単位：円

項目	小・中学校	備考
入学金	8,000	
授業料(学期)	400,000~450,000	学年によって異なる
その他()	2,000	交通費・昼食費

入学手続きなど

学校長が面接し収容人数に余裕があれば随時入学できる。

日本から持参する必要書類

特になし。成績(内申)書などを持参できればよい。

★小・中・高併設校★

学校名 LORETO CONVENT MSONGARI SCHOOL(小・中・高校)

ロレト・コンベント ムソングリ

(小1~小7, 中1~中6)

所在地 P. O. Box 30258, Nairobi

学校の性格 イギリス系ミッション・スクール

・主要言語 英語

・通入学時期 1月, 4月, 9月が適当

当校は小・中・高とも第1学期が1~3月(4月休校), 第2学期5~7月(8月休校), 第3学期9~11月(12月休校)。

ミッション系であるが, 教課内容は自由である。

父兄負担費

単位：円

項目	高等学校	備考
入学金	6,000	
授業料(月額)	14,000	
その他	12,000	昼食代, 教材費, 交通費など

入学手続きなど

入学申し込み書に記入し, 前校の成績表付帯の上, 学校長の面接があり, 席があれば即時入学できる。

日本から持参する必要書類

成績(内申)書などを用意すればよい。入学申し込み書は当日記入可。

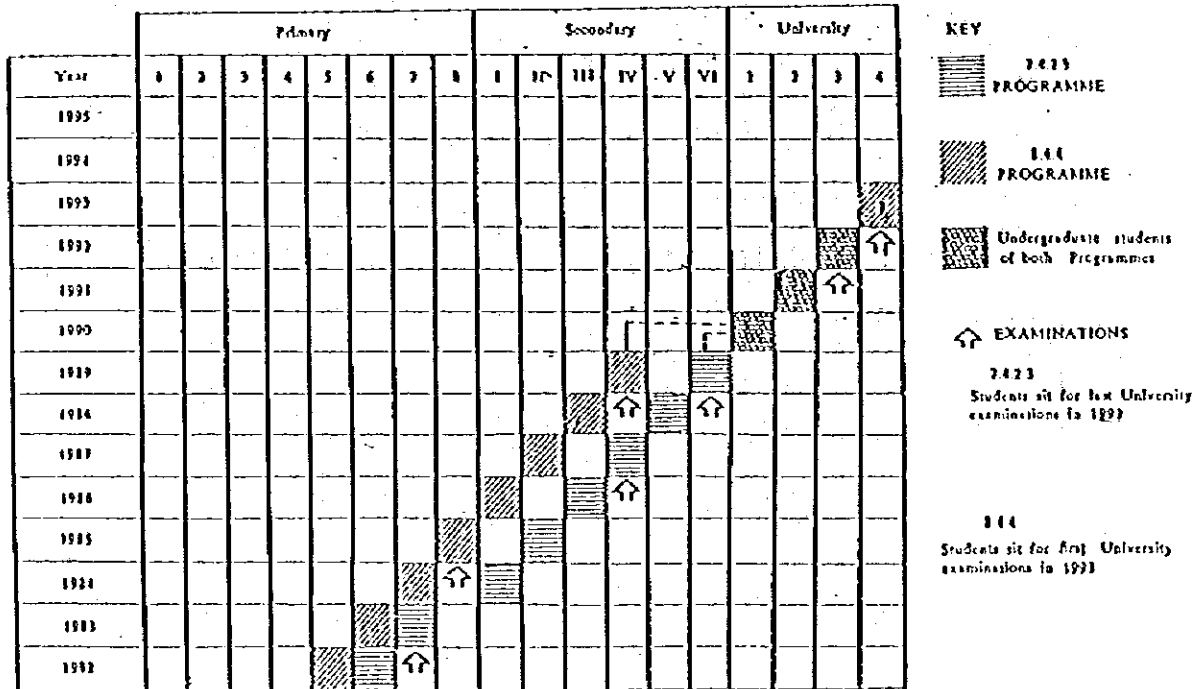
付 録

付 I 新教育制度

1. 8-4-4 制実施プログラム

MINISTRY OF EDUCATION, SCIENCE AND TECHNOLOGY
111 EDUCATION PROGRAMME

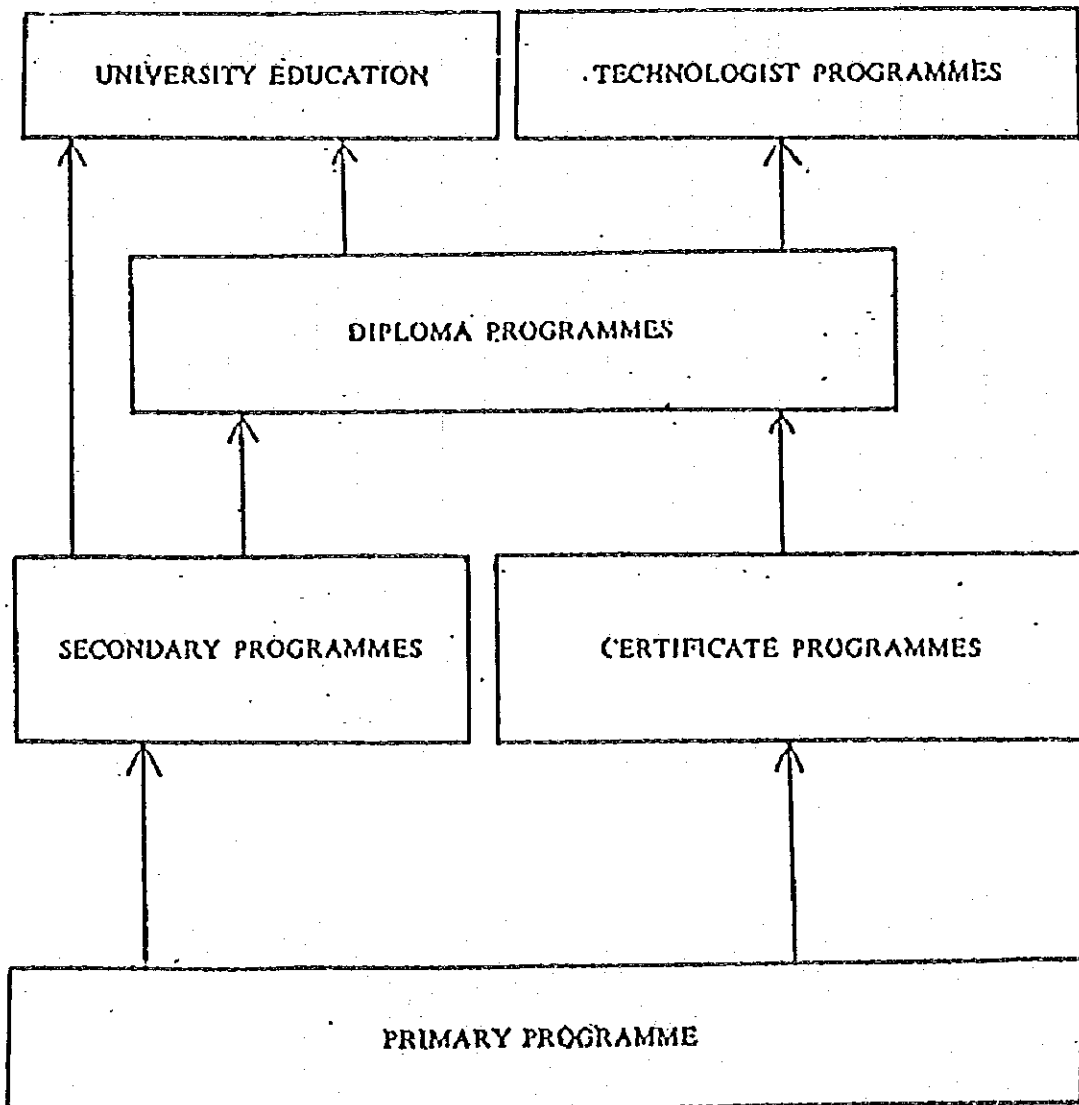
PROGRESS OF PUPILS/STUDENTS AFFECTED BY IMPLEMENTATION

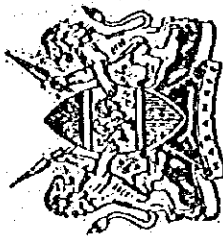


2. 8-4-4制における技術教育及び訓練プログラム

TECHNICAL EDUCATION AND TRAINING

PROGRAMMES IN 8-4-4 SYSTEM





REPUBLIC OF KENYA

MINISTRY OF EDUCATION, SCIENCE AND TECHNOLOGY

8-4-4 SYSTEM OF EDUCATION

1st December, 1984

PRINTED BY THE GOVERNMENT PRINTERS, NAIROBI

TABLE OF CONTENTS

	PAGE
FOREWORD—By Hon. Minister for Education, Science and Technology, Prof. J. K. N. ENO, B.Sc., M.P.	(v)
CHAPTER ONE—THE RATIONALE AND STRUCTURE—	
1.1. Rationale	1
1.2. Structure and Pupils Flow	2
CHAPTER TWO—THE CURRICULA—	
2.1. Primary Education	3
2.2. Secondary Education	5
2.3. University Education	8
CHAPTER THREE—EXAMINATIONS AND ASSESSMENT—	
3.1. Kenya Certificate of Primary Education	13
3.2. Subjects for the Examination	13
3.3. Continuous Assessment	14
3.4. Informal Learning Activities	15
3.5. Non-Formal Learning Activities	15
3.6. Pupils Enrolment—Standard 8 (1985)	15
3.7. Kenya Certificate of Secondary Education	15
CHAPTER FOUR—TECHNICAL AND VOCATIONAL TRAINING—	
4.1. Aims and Objectives	17
4.2. Technical Education and Training Curriculum	17
4.3. Training Programmes	18
4.4. Technical/Business Proficiency Skill Certificate	18
4.5. Technical/Business Artisan Certificate	18
4.6. Technical/Business Education Craftsman Certificate	18
4.7. Diploma Programmes	18
4.8. Higher Diploma Programme	18
CHAPTER FIVE—OTHER ASPECTS OF IMPLEMENTATION—	
5.1. Teachers	19
5.2. Curriculum Support Personnel	19
5.3. Physical Facilities	19
CHAPTER SIX—CALENDAR AND PROJECTED SCHEDULE OF IMPLEMENTATION	
	21

MINISTRY OF EDUCATION, SCIENCE AND TECHNOLOGY

FOREWORD

Kenya attained independence twenty one years ago. During this period the Government has continually reviewed the educational system so as to ensure that it serves and satisfies the aspirations of the country's youth as well as cater for the wider interests of national development.

Over the same period the Government set up three major inquiries to look into ways and means of achieving the national educational objectives. These are:

- (i) Kenya Education Commission (1964).
- (ii) National Committee on Educational Objectives and Policy (1976).
- (iii) Presidential Working Party on Second University (1981).

The reports of these three Commissions are commonly referred to as *Ominde*, *Goehaithi* and *Mackey* respectively after the names of the Chairmen who headed the inquiries.

Mackay's report recommended, among other things, the major change to the 8-4-4 system of education. The Government accepted this recommendation in March, 1982 and directed the then Ministries of Basic and Higher Education to start preparations for its implementation in 1985.

The essential elements of the new system are: in the area of structure which will have 8 years of primary, 4 years of secondary and 4 years minimum University education; in the improvement of Curriculum content with greater orientation towards technical education and the movement away from education being examination centred.

The old structure was 7 years' primary, 4 years secondary, 2 years higher and 3 years minimum University education. Little technical education was offered at primary, secondary and higher levels and the measure of success at each of these levels was on basis of examination which took little or no consideration of a child's progressive growth at school. The system relied mainly on rote learning and memorization.

The new system, apart from doing away with the bottleneck of the two years of higher, has a heavier dose of technical education in the last two years of primary and a technical line in the post-primary for most of the pupils parallel with the purely academic line for 20 per cent of the pupils. Assessment at every stage, right from the early classes in primary onward, will now form part of the yardstick for judging success or failure.

I believe that the new system will impart the kind of attitude more in tune with the development of the rural areas where 80 per cent of our people live. It will also impart a capability to the nation to undertake major industrial development—a source of employment to many—of fostering side by side heavy and small scale, village crafts industries. In addition, it will enhance the role of agricultural productivity in national development as agriculture is the source of employment and income to nearly 80 per cent of our people. In this regard agriculture will be taught as a subject in all our secondary schools to enable many of our youth to appreciate the role of agriculture in the national building effort.

The Ministry is grateful to His Excellency the President and the Government for initiating this dynamic reform that promises a better future for our youth and our country. Indeed His Excellency the President, the Cabinet and Members of Parliament have been directly instrumental in mobilizing the public to provide funds for the construction of physical facilities.

I also wish to express my gratitude to the Kenyan Wannanchi who have, in true Harambee spirit, so readily risen to the occasion and taken up the challenge so effectively. Their positive response has ensured that the country will be ready for implementation of the initial stage of the 8-4-4 Education System in early January, 1985.

The actual implementation of the programme is being overseen by a Ministerial Committee under the general direction of the Permanent Secretary who is assisted by the three Directors of Education. I wish therefore to register my appreciation for the able way in which Mr. L. P. Odoto, the Permanent Secretary, Dr. G. P. Oluoch, Director of Primary Education, Mr. P. E. Kinyanjui, Director of Secondary Education and Mr. D. M. Mbiti, Director of Technical Education have shouldered this heavy responsibility.

Mr. J. Kamunge before his elevation to the post of Permanent Secretary, played a vital role as Director of Secondary Education in this process and I am indeed grateful to him. Last but not least, I would like to commend Mr. J. B. Ndungu and his staff in the 8-4-4 Bureau for the swift and efficient manner in which they have transformed the programme into a reality.

This publication explains the new system and how it is intended to work. I commend the reading of the booklet to as many of our people as possible. In particular the leaders in all walks of life, who take keen interest in the development of Kenya, must make every effort to read it.

HON. PROF. J. K. NGENO, PH.D., EGH, MP.
Minister for Education, Science and Technology.

CHAPTER ONE—THE RATIONALE AND STRUCTURE

Introduction

The Government has decided to restructure the education and training systems with a view to making them more practically oriented by implementing the 8-4-4 system of Education as from January, 1985. The restructuring of the education system to 8-4-4 was one of the recommendations of the Presidential Working Party on the Second University whose report was presented to His Excellency the President in September, 1981, and was subsequently accepted by the Government in March, 1982.

1.1 RATIONALE

(i) *Challenge for National Development.*—The concept of 8-4-4 system is aimed at responding to the challenge of national development and the participation of the youth in development. Previous reports on education indicated that the education system did not respond adequately to the needs of the country and its people. The new system of education is aimed at redressing this shortcoming.

(ii) *Need for a more relevant Curriculum.*—The education system hitherto followed by the country did not cater for the greater number of pupils enrolled. There is need therefore to provide practical oriented curriculum that will offer a wider-range of employment opportunities.

(iii) *Equitable Distribution of Education Resources.*—The 8-4-4 system will ensure that there are equal opportunities for all students regardless of their place of origin, creed, or race by providing equitable distribution of educational resources.

(iv) *Technical and Vocational Training.*—The 8-4-4 system, with its emphasis on technical and vocational education, will ensure that the students graduating at every level have some scientific and practical knowledge that can be utilized for either self-employment, salaried employment or for further training.

(v) *Assessment and Evaluation.*—Previously learners' achievements were being assessed by one single examination at the end of the course. The 8-4-4 system will lay emphasis on continuous assessment as an integral part of evaluating students' abilities and achievements. This means that the students' future will be determined by both continuous assessment as well as final examination.

(vi) *Increased Opportunities for further Training.*—The main objective of the post-primary technical education and training is that pupils who do not proceed to secondary schools can enter the Craft Training

Centres and can proceed to the post of secondary technical training institutions for Diploma and Higher Diploma courses. This will ensure that funds invested in education are not lost through dropouts who have neither useful education nor the opportunities to improve on what has already been gained. The scientific and technological education to be provided to the majority of Kenyans at the higher level will produce highly skilled and specialized manpower in such areas as engineering, agriculture, technology, building construction and others that continue to be dominated by experts from other countries.

(vii) *Education for National Unity.*—Education in Kenya must foster a sense of nationhood and promote national unity. It is the paramount duty of education to help young people acquire this sense of nationhood by promoting positive attitudes of mutual respect which will enable them to live in harmony and to make a positive contribution to society.

1.2. STRUCTURE AND PUPILS FLOW

The 8-4-4 system will be structured as follows:

8 years—Primary Education.

4 years—Secondary Education.

4 years—University (Basic Degree Course).

The current Standard 7 pupils will proceed to Standard 8 in January, 1985, sitting for the Kenya Certificate of Primary Education (KCPE) examination in November, 1985. The first Form I intake under 8-4-4 system will be in 1986. This class will sit for Kenya Certificate of Secondary Education (KCSE) examination in 1989.

CPE was done for the last time in 1983 and KJSE, KCE and KACE will be done for the last time in 1985, 1987 and 1989 respectively.

In 1990, two groups of students will be considered for the University admission, namely Form 4 students of the 8-4-4 and Form 6 candidates of the current system. The 8-4-4 undergraduates will take a minimum of 4 years at the University to obtain first (basic) degree course qualifications. The last Form VI candidates of the present system will, on the other hand, spend 3 years at the University for similar courses.

Illustrations of the new structure and the Pupil Flow are at appendices I and II.

CHAPTER TWO—THE CURRICULA

Introduction

The main aim in changing Kenya's education system to 8-4-4 is to improve the quality of education at all levels. This objective can only be achieved through what is taught and how it is taught. It is through the subjects that will be learned that pupils will be able to develop their talents to the full. The courses that have been designed and developed for the new system will give children useful skills through practical subjects.

The objectives each cycle will achieve are explained hereunder:

OBJECTIVES OF PRIMARY EDUCATION

To provide learning opportunities which will enable pupils to:

- (i) Acquire literacy, numeracy and manipulative skills.
- (ii) Develop self-expression, self-discipline, self-reliance and full utilization of a child's senses.
- (iii) Develop ability for clear logical thought and critical judgement.
- (iv) Experience a meaningful course of study which will lead to enjoyment and successful learning and a desire to continue learning.
- (v) Acquire a suitable basic foundation for the world of work in the context of economic and manpower needs of the nation.
- (vi) Appreciate and respect the dignity of labour.
- (vii) Develop desirable social standards and attitudes.
- (viii) Grow into a strong and healthy person.
- (ix) Develop a constructive and adaptive attitude to life based on moral and religious values and responsibilities to the community and the nation.
- (x) Appreciate ones own as well as other people's cultural heritage, develop aesthetic values and make good use of leisure time.
- (xi) Grow towards maturity and self-fulfilment as useful and well adjusted members of society.

2.1. (a) Primary Education Curriculum

The primary education aims at providing the children with adequate intellectual and practical skills useful for living in both urban and the rural areas.

The primary Curriculum is based on the following broad principles:

- (i) Improving its quality, content and relevance to cater for the majority of the children for whom primary education is terminal.
- (ii) Making the eight-year primary education available to all primary school age children.

(iii) Diversifying primary education in order to enhance competence in a variety of development tasks.

(b) Subjects in the Primary Curriculum

Following are the subjects that will be taught in primary curriculum:

- (i) English.
- (ii) Kiswahili.
- (iii) Mathematics.
- (iv) Science (Including Agriculture).
- (v) Home Science.
- (vi) Art and Crafts.
- (vii) Music.
- (viii) History and Civics.
- (ix) Geography.
- (x) Religious Education.
- (xi) Physical Education.

It should be noted that it is mainly through the teaching of practical subjects, i.e. *Art, and Crafts, Home Science and Agriculture*, that the pupils will acquire practical skills. For example, in *Art and Crafts* the following skills will be emphasized.

- | | |
|------------------|----------------------|
| Drawing | Leather Work |
| Painting | Modeling and Carving |
| Graphic Design | Fabric Design |
| Collage/Mosaic | Puppetry |
| Weaving | Woodwork |
| Ornament Making | Metalwork |
| Claywork/Pottery | |

It is clear from the above list of practical activities that a mastery of these skills will enable pupils to make useful and functional articles like posters, greeting cards, baskets, table mats, ropes, earrings, combs, stools, cane chairs, coat hangers, bricks etc.

Special attention will be given to topics within Home Science which will prepare pupils in:

- Needlework
- Child Care
- Food Preparation
- Care of Home

Pupils will be able to make articles such as pyjamas, table cloths, blouses, shirts, children's garments, etc. They will also gain proficiency in preparation of food items such as uji, matooke, ugali, chapati, mandazi, etc.

In Agriculture the following practical activities will be emphasized—

- (i) growing of crops like vegetables and flowers for use and sale;
- (ii) rearing of domestic animals;
- (iii) poultry and bee-keeping;
- (iv) making farm tools;
- (v) caring for the soil and environment.

2.2. Objectives of Secondary Education

Secondary Education will—

- (i) lead to all round mental, social, moral and spiritual development of the learner;
- (ii) prepare the learner to make positive contribution to the development of society;
- (iii) enable the learner to choose with confidence and poise with vocational education after school;
- (iv) build a firm foundation for further education;
- (v) ensure parity in the cognitive, psychomotor and affective skills for all students at this level in the country;
- (vi) lead to the acquisition of attitudes of national patriotism, self respect, self-reliance, co-operation, adaptability, sense of purpose, integrity and self-discipline, respect and consideration for others, loyalty and service to home, society and the nation.

(a) Secondary Education Curriculum

The development of the four year secondary education curriculum is being undertaken at Kenya Institute of Education.

(b) Subjects to be Taught in Secondary Schools

- (i) Communication
- (ii) Mathematics
- (a) English.
- (b) Kiswahili.
- (c) Foreign Languages.
- (d) Mathematics.

(iii) Science

- (e) Physical Sciences.
- (f) Biological Sciences.

(iv) Humanities

- (g) Geography.
- (h) History and Government.
- (i) Religious Education.
- (j) Social Education and Ethics.
- (k) Agriculture.

(v) Applied Education

- (l) Industrial Education.
 - 1. Wood Technology.
 - 2. Metal Technology.
 - 3. Power Technology.
 - 4. Electrical Technology.
- (m) Business Education.
 - 1. Accounts.
 - 2. Commerce.
 - 3. Typing and Office Practice.

(n) Home Science.

- 1. Clothing and Textiles.
- 2. Foods and Nutrition.

(o) Art.

- (p) Music.

(q) Physical Education.

A curriculum incorporating at least 13 subjects will be offered to all pupils in Forms I and II, as follows:

- (i) English.
- (ii) Kiswahili.
- (iii) Mathematics.
- (iv) Physical Sciences.
- (v) Biological Sciences.
- (vi) Geography.
- (vii) History and Government.
- (viii) Religious Education.
- (ix) Agriculture.
- (x) *One Subject From:*
 - Home Science.
 - Industrial Education.
 - Business Education.

(xi) *One Subject From:*
Music.

Art.

(xii) Social Education and Ethics.

(xiii) Physical Education.

Optional.

(xiv) A. Foreign Language.

The number of subjects to be done at Forms III and IV is based on the need to prepare students for self-reliance, vocational training and further education. The curriculum will consist of nine examinable and two non-examinable subjects as follows:

(c) *The nine Examination Subjects are:*

1. English.

2. Kiswahili.

3. Mathematics.

4. Physical Science.

5. Biological Science.

6. Geography.

7. History and Government.

8. Agriculture.

9. One subject from the following:

(i) Religious Education.

(ii) Music.

(iii) Art.

Industrial Education

(iv) Wood Technology.

(v) Metal Technology.

(vi) Power Technology.

(vii) Electrical Technology.

(viii) Technical Drawing.

Home Science

(ix) Home Science.

Business Education

(x) Accounts.

(xi) Commerce.

(xii) Typing and Office Practice.

(d) *Optional Subject*

(viii) A. Foreign Language.

(e) *Two Compulsory Non-Examination subjects*

(xiv) Social Education and Ethics.

(xv) Physical Education.

2.3. UNIVERSITY EDUCATION

Universities will design and develop basic degree courses of study to cover four years. Specialized degree courses like medicine, architecture, etc., will take longer periods.

The aims of the university education are to—

(i) produce mature and conscientious graduates with ability and desire to contribute to the development of the country;

(ii) provide for national service and development which reflects the National Cultural Heritage;

(iii) develop and transmit knowledge and skills through research and training at undergraduate and postgraduate levels;

(iv) foster national consciousness and unity;

(v) preserve knowledge and stimulate the intellectual life and cultural development of the country. The University will continue with the task of producing high level manpower in the various scientific, technological fields to meet the social, cultural and economic development needs of the nation.

Currently, and within the requirements of the above stated national goals of education, the universities offer, or plan to offer, the following disciplines:

(a) *University of Nairobi*

Faculty

Agriculture

Department/Disciplines

—Crop Science.

—Agricultural Economics.

—Soil Science.

—Animal Production.

—Food Science and Technology.

—Forestry Science and Technology.

—Architecture.

—Fine Art.

—Design.

—Land Development.

—Urban and Regional Planning.

—Housing Research and Development Unit.

Architecture

Design and

Development

Faculty
Arts

Department/Disciplines

- Economics.
- Geography.
- History.
- Linguistics and African Languages.
- Literature.
- French (Sub-department).
- Philosophy.
- Religious Studies.
- Sociology.
- Accounting.
- Business and Administration.
- Management Science.
- Civil Engineering.
- Electrical Engineering.
- Surveying and Photogrammetry.
- Human Anatomy.
- Medical Physiology.
- Biochemistry.
- Community Health.
- Medicine.
- Surgery.
- Paediatrics.
- Obstetrics and Gynaecology.
- Human Pathology.
- Medical Microbiology.
- Advanced Nursing.
- Physiatry.
- Orthopaedic Surgery.
- Diagnostic Radiology.
- Dental Surgery.
- Pharmacy.
- Veterinary Anatomy.
- Veterinary Physiology.
- Veterinary Pathology and Microbiology.
- Animal Production.
- Clinical Studies.
- Public Health, Pharmacology and Toxicology.

Commerce

Engineering

Medicine

Veterinary Medicine

In addition to the Faculties listed above, the following institutes and schools are operating at the University of Nairobi.

- College of Distance and Continuing Education.
- Institute of African Studies.
- Institute of Computer Science.
- Institute for Development Studies.
- School of Journalism.

(b) *Kenya University College (A Constituent College of the University of Nairobi)*

This institution is currently charged with responsibility for all undergraduate and postgraduate teacher training programmes under the auspices of the University of Nairobi.

Courses offered:

Science

- Botany.
- Zoology.
- Chemistry.
- Physics.
- Mathematics.
- Business Education.
- Geography.
- History.
- Fine Art.

Arts

- Philosophy and Religious Studies.
- Literature.
- Linguistics.
- Music.
- Educational Psychology.

Education

- Educational Administration.
- Planning and Curriculum Development.
- Educational Foundations.
- Educational Communication and Technology.
- Physical Education and Games.

Note.—Two other organs worth noting within the Faculty of Education are:

- (i) Bureau of Education Research.
- (ii) Basic Education Resource Centre.

(c) *Moi University*

This new University aims at promoting science and technology for the development of the country. When fully operational, it will endeavour to satisfy this objective through the following undergraduate, postgraduate, training and research faculties:

- Technology.
- Agriculture.
- Veterinary Medicine.
- Forest Resources and Wildlife Management Science.
- Social, Cultural and Development Studies.
- Information Science.
- Health Science.
- School of Environmental Studies.
- Institute of Applied Science and Technology.
- College of Continuing Education.

CHAPTER THREE—EXAMINATIONS AND ASSESSMENT

Introduction

The formal primary and secondary cycles of the 8-4-4 education system will have two terminal examinations, the Kenya Certificate of Primary Education (KCPE) examination at the end of Standard 8 and the Kenya Certificate of Secondary Education (KCSE) examination at Form IV. Continuous assessment will be gradually introduced and eventually become part of the examination and assessment system. Selection to Form I and University will be on the basis of performance in KCPE and KCSE respectively.

3.1 *Kenya Certificate of Primary Education (KCPE) Examination.*—Candidates to be accepted for this examination will be:

- (i) All those who will have continuously attended primary schools recognized by the Ministry of Education, Science and Technology up to Standard 8 by November, 1985, and are presented for the examination by such schools.
- (ii) Private candidates who are Kenya citizens or bona fide residents of Kenya and possess the following qualifications—
 - (a) a leaving certificate from a recognized primary school indicating that the candidate completed standard seven and would have been admitted to standard eight had he continued with school;
 - (b) proof that the candidate already holds a C.P.E. certificate or an equivalent qualification;
 - (c) proof that the candidate has completed a full primary school course in a recognized adult education or equivalent programme and has attained the level of competence required for KCPE candidates.

3.2 (a) *Subjects for the Examination*

- (i) English.
- (ii) Kiswahili.
- (iii) Mathematics.
- (iv) Science and Agriculture.
- (v) Home Science.
- (vi) Art and Crafts.
- (vii) Music.
- (viii) Geography.
- (ix) History and Civics.
- (x) Religious Education.

(b) *Examination Papers*

KCPE will consist of six papers as follows:

- (i) English Language and English Composition.
- (ii) Kiswahili Language and Kiswahili Composition.
- (iii) Mathematics.
- (iv) Science and Agriculture.
- (v) Geography, History, Civics and Religious Education.
- (vi) Art and Crafts, Home Science and Music.

(c) *Issue of Results*

The subjects results will be indicated by letter grades from A to E, A being the highest and E being the lowest as follows:

A	}	—Very good.
A-		
B+	}	—Good.
B		
B-	}	—Average.
C+		
C		
C-	}	—Poor.
D+		
D-		
E		—Very poor.

(d) *Issue of Certificates.*

Certificate to be awarded to candidates will show the name of the candidate, the candidate's index number, the name of the school or centre, all the subjects, year of the examination, the certificate serial number and candidate's attainment in all the papers attempted (Grades A to E).

3.3. *Continuous Assessment*.—Besides the final examinations that pupils will sit at the end of Standard Eight (KCPE), and Form IV (KCSE), the 8-4-4 System of Education will have built into it a plan for Continuous Assessment of each child's progress right through his/her school career in every subject and every learning activity which can be assessed. With this plan teachers and heads of schools will be required to provide reliable reports on each pupil's overall progress from one term to another.

In this respect the attention of teachers of primary schools has been drawn to the fact that learning activities in a school situation go far beyond the formal subjects in the school curriculum. The following categories of additional learning activities will provide essential basis for continuous assessment.

3.4. *In-Formal Learning Activities*.—Activities that are not directed by the teachers, such as—

- (i) habits and interests unconsciously picked up/adopted by pupils as they interact with their teachers;
- (ii) behavioural attitudes influenced by school rules and regulations;
- (iii) attitudes an activities derived from all forms of inter-person relationships within the school.

3.5. *Non-Formal Learning Activities*.—Activities not carried out in regular class settings but are an integral part of a school's effort in the development of pupils. For example:

- (i) Games.
- (ii) Sports.
- (iii) Singing.
- (iv) Drama.
- (v) Debating.
- (vi) Scouting and Guiding.
- (vii) Gardening.
- (viii) Christian Union Activities.

In the continuous assessment of pupils, all these activities will be taken into account in addition to the records of academic performance. The final report will form part of the school leaving certificate which the Ministry will issue to each child when he/she leaves school.

3.6. Standard 8 (1985) pupil enrolment statistics for the first 8-4-4 Kenya Certificate of Primary Education Examination (KCPE) are shown in appendix III.

3.7. *Kenya Certificate of Secondary Education (KCSE) Examination*.—The first Kenya Certificate of Secondary Education (KCSE) examination will be done in 1989 by pupils who will be recruited to Form I in 1986. Details of the subjects that will be examined are given in Section 2.2 of Chapter Two on Secondary Curriculum.

CHAPTER FOUR—TECHNICAL AND VOCATIONAL TRAINING

4.1. *Aims and objectives.*—The aims of the technical education and training at post-primary and post-secondary levels are to—

- (i) provide increased training opportunities for school leavers that will enable them to be self-supporting;
- (ii) develop practical skills and attitudes which will lead to income earning activities in the urban or rural areas through salaried employment or self-employment;
- (iii) provide technical knowledge and vocational skills necessary for the growth of agricultural, industrial and commercial development;
- (iv) produce people who can apply scientific knowledge for the solution of environmental problems.

To achieve these objectives the Government plans to—

- (i) harmonize and rationalize the curricula currently being offered and certificates being awarded by all training institutions in the country as well as other planned crafts training schools which will be built;
- (ii) create linkages in the training programmes from the village polytechnics, through the institutes of technology to the national polytechnics or the universities;
- (iii) convert and restructure the present 15 Government technical secondary schools into post-school technical colleges in order to increase the number of training opportunities for the school leavers;
- (iv) introduce training programmes at both post-primary and post-secondary levels with a reasonable attendance pattern i.e. full-time, part-time, industrial attachments;
- (v) re-organize the present national polytechnics and colleges to provide further technical education and training up to Higher Diploma level.

4.2. *Technical Education and Training Curriculum.*—The Technical Education Project (TEP) has been launched at the Kenya Institute of Education and has started preparing curricula for:

- (i) Craft training centres;
- (ii) Post-secondary technical colleges;
- (iii) National polytechnics;

to be in conformity with the objectives of the 8-4-4 system of education.

4.3. *Training Programmes.*—Through the 8-4-4 system training opportunities will be expanded to meet the demands of those who terminate their education at the primary or secondary levels. The number of training programmes is planned at three levels: i.e. certificate, diploma and higher qualifications.

4.4. *Technical/Business Proficiency Skill Certificate.*—These will be short courses of six to twelve months to provide primary school leavers with proficiency skills. The training will be practical rather than theoretical to enable students to be self-employed or salaried.

4.5. *Technical/Business Artisan Certificate.*—There will be two years artisan courses for primary school leavers. The curriculum will comprise 90 per cent practical work and 10 per cent theoretical subjects. The courses will be offered to primary school leavers at crafts training centres (village polytechnics), farmers training centres, rural community training centres, national youth service and Christian industrial training centres.

4.6. *Technical/Business Education Craftsman Certificates.*—There will be a number of craftsmen courses for primary school leavers to be offered in different professions or trades. The courses will last three to four years and will be offered at craft training centres. The curriculum of craftsmen programmes will comprise 80 per cent practical work and 20 per cent related subjects i.e. Mathematics, Physical Science, Technical Drawing, Technology, Kiswahili, English, Government, Social Education and Ethics and General studies.

4.7. *Diploma Programmes.*—The diploma programmes are meant to provide middle-level manpower. Secondary school leavers and holders of craftsman's certificate training programmes at the junior level will be eligible for these courses. The programmes will take two to three years. The curriculum will be 60 per cent practical work and 40 per cent theoretical work. These programmes will be offered in agricultural colleges, technical colleges and Government training schools.

4.8. *Higher Diploma Programmes.*—These programmes will be offered to students who have already attained diploma certificates.

4.9. A chart showing the technical training programmes of the 8-4-4 education programme is at Appendix IV.

CHAPTER FIVE—OTHER ASPECTS OF IMPLEMENTATION

5.1. Teachers—

(a) *Primary Schools.*—The introduction of standard eight classes in 1985 will make it necessary to increase the number of teachers in primary schools by 11,500. The Teachers Service Commission is at present recruiting this number of new teachers for posting to schools in early January, 1985. Distribution schedule by Districts is at Appendix V.

(b) *Secondary Schools.*—Many secondary schools are at present under-staffed. Since there will be no Form I intake in 1985, it will be possible to share out the existing teachers more evenly for the remaining classes during the year. Meanwhile efforts to train more secondary school teachers will continue.

(c) *University staff.*—There already exists a shortage of university teaching staff and more of them will have to be trained urgently. Moi University will receive priority in the University staff development programme.

5.2. *Curriculum Support Personnel.*—The addition of standard eight classes will considerably enlarge primary schools which already have standard seven classes. This expansion will require greater and closer supervision of all school work which will necessitate more administrative and curricular support personnel. In anticipation of this development, the Ministry has already re-organized educational zones and appointed more Assistant Education Officers and Assistant Inspectors to ensure that there is at least an Assistant Education Officer in charge of a Division and one Inspector for every zone with about 30 primary schools.

Details of re-organization of educational zones are shown at Appendix VI.

5.3. *Physical Facilities.*—Classrooms, other buildings and staff houses.

(a) *Primary schools.*—The introduction of standard eight classes will require construction of 13,370 classroom units. In addition, every school will require a workshop and a Home Science room for more effective teaching of practical subjects (See Appendix VII).

The responsibility for the construction of these buildings, including extra teachers' houses, will be handled through Harambee efforts. Already impressive progress has been made by the public in carrying out this responsibility and it is hoped all new standard eight classrooms will be ready by the end of 1984. Information on this exercise is further amplified in Appendix VII.

(b) *Secondary School.*—Many secondary schools do not have adequate physical facilities i.e. classrooms, dormitories, laboratories, etc. Pressure on the use of these limited facilities will be eased in 1985 when there will be no Form I pupils. This will enable the parents and the Government to plan the future physical development of these schools.

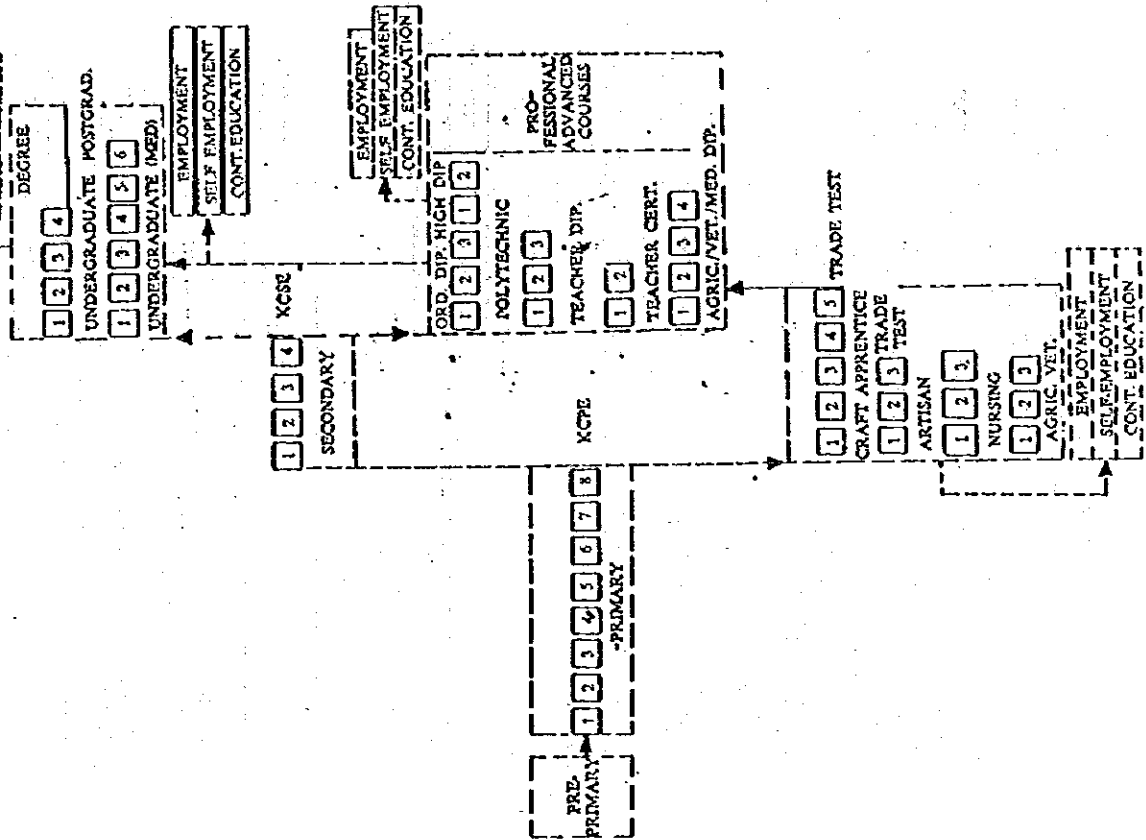
5.4. *Equipment.*—Greater pupils enrolment in primary schools as well as the teaching of practical subjects will call for more equipment in these schools. As the Government can meet only partial cost of this equipment, parents will be expected to augment the extra cost.

CHAPTER SIX—CALENDAR OF IMPLEMENTATION ACTIVITIES

Year/Month	Major Events	Year/Month	Major Events
1981		1983	
September	—Working Party Report on the Second University presented to His Excellency the President. Included in the Report was the recommendation for change of the education system to 8-4-4 system of education (Paragraphs No. 39 and 40 of the Report).	October	—(i) Ministries of Basic Education and Higher Education merged into Ministry of Education, Science and Technology. The merger resulted in the formation of departments of: <ul style="list-style-type: none"> (a) Primary Education. (b) Secondary Education. (c) Technical and Higher Education.
1982			—Three Directors of Education appointed to head these departments.
March	—Above recommendation accepted by the Government and Ministries for Education (Basic and Higher) directed to start planning for the stipulated change.		—(ii) A new overall 8-4-4 Ministerial Implementation Committee was appointed with representation as follows: <ul style="list-style-type: none"> —The three Directors of Education. —Two Chief Inspectors of Schools (Primary and Secondary Cycles). —Vice Chancellor, University of Nairobi. —Principal, Kenyatta University College. —Ministry's Principal Finance and Establishment Officer. —Secretary, Teachers Service Commission.
April	—First meeting of inter-ministerial Committee of Ministries of Education held to map out strategies for the change to 8-4-4.	November	—Ministerial Implementation Committee met twice to review implementation of the 8-4-4 and to offer proposals for speeding up the whole process. 8-4-4 syllabuses for Std. 7 and 8 approved by the KIE Academic Board.
April	—Committees of respective education Ministries worked through professional "task forces" to produce a "blue print" to implement the 8-4-4. The work of the two committees was co-ordinated by the inter-ministerial Committee in which the University of Nairobi was also represented.	1984	
February	—First major circular on the 8-4-4 implementation sent out to field officers by the Ministry of Basic Education informing officers about the envisaged reform and their role in the exercise.	February	—Standards 7 and 8 8-4-4 syllabuses distributed to all primary schools.
April	—(i) The two Ministers for Education (Basic and Higher) briefed Parliament in a joint statement.	January	—First round of in-service courses on the new syllabuses for teachers and field officers mounted throughout the country. The 8-4-4 Bureau set up in October enlarged and elevated in status.
September	—(ii) More detailed information sent to field officers to guide them and the school communities in preparing schools for the 8-4-4.		—A Deputy Director of Education (DDE) appointed to head the new Bureau initially supported by three Assistant Directors of Education (ADEs). Each ADE assigned responsibility to implement a given cycle i.e. primary education, secondary education, technical and higher education.
	—Formation of a nucleus 8-4-4 Bureau to co-ordinate the implementation efforts between the Ministry of Basic Education Headquarters, the field services and the school communities.		—A senior education officer, a senior education economist/planner and two education officers also joined the Bureau.

Year/Month	Major Events	Year/Month	Major Events
1984		1984	
February/	—The Hon. Minister for Education toured all Provinces on an 8-4-4 launching-cum-publicity campaign.	July	—Teachers Service Commission advertised recruitment of 11,540 untrained teachers required to reinforce the primary cycle teaching force when standard 8 classes are introduced in January, 1985.
March	—Revised book lists for use in primary school classes including standard 8 (1985) were sent out to schools after approval by Kenya Institute of Education Academic Board and subsequent sanction by the Director, Primary Education.	August	—Further briefing of Provincial Education Officers, District Education Officers and District Primary Inspectors of Schools at the Kenya Institute of Education by Nairobi Headquarters officers mainly on implications of administration. Seminar held at the Kenya Science Teachers College for principals, deputy principals and deans of curriculum in primary teachers colleges. Participants briefed on strategies and activities relating to 8-4-4 educational reforms and the role of the teacher trainers in that change.
March/	—In-service courses for field officers on 8-4-4 programme (Primary cycle), were intensified to cover Teachers Advisory Centres' tutors and district primary school inspectors.	November/	—Provincial briefing seminars for all field officers, heads of secondary schools and teachers colleges to wrap-up and appraise last-minute preparations for the introduction of standard 8 class in January, 1985, and to inform the field officers and heads about preparations for the secondary education cycle. The Kenya National Examinations Council publishes sample question papers for KCPE. Publication on 8-4-4 system of education projected implementation schedule.
April	—Educational administrative divisions were re-organized to create smaller zones of maximum 30 schools each for more effective administrative and inspectorial purposes. The measure was immediately followed by recruitment/appointment of additional Assistant Education Officers and assistant primary school inspectors.	December	
1984		1985	
March/	—The Kenya National examination council published a booklet, "Regulations for the Kenya National Primary Examinations", but name of examination later changed—see December, 1985 below.	January/	1. PRIMARY CYCLE
April	—Work started at the Kenya Institute of Education on the Secondary (8-4-4) Education Project under the Director, Secondary Education.	February	—Introduction of standard 8 classes. Deployment of untrained teachers. Orientation of untrained teachers. Review of early stages of standard 8 implementation namely: <ul style="list-style-type: none"> (i) Teachers. (ii) Curriculum materials. (iii) Equipment. (iv) National enrolment. (v) Milk and Feeding programmes.
May	—Drawings for Workshops printed and distributed to all primary schools.		—Design and production of School Leaving Certificate Format (formerly, Form ED/B/100) in the light of the 8-4-4 emphasis on continuous pupil assessment.
June	—Drawings for future Home Science rooms for primary schools printed and distributed. All Provincial Education Officers, District Education Officers and District Primary School Inspectors met headquarters officers at the Kenya Institute of Education for a review/briefing meeting on progress of 8-4-4 implementation.	November/	—First (8-4-4) Kenya Certificate of Primary Education Examinations.
July	—Assistant Ministers, Director, Primary Education and 8-4-4 Bureau officers toured all eight provinces to further brief field officers and heads of secondary schools on 8-4-4 implementation issues: primary cycle curriculum, school management, staffing, inspection etc. Development of provision of physical facilities was also assessed during these visits.	December	
1984			
June/			
July			

STRUCTURE OF EDUCATION 8.4.4



MINISTRY OF EDUCATION, SCIENCE AND TECHNOLOGY
 8.4.4 EDUCATION PROGRAMME
 PROGRESS OF PUPILS/STUDENTS AFFECTED BY IMPLEMENTATION

Year	Primary								Secondary						University			
	I	2	3	4	5	6	7	8	I	II	III	IV	V	VI	1	2	3	4
1995																		
1994																		
1993																		
1992																		
1991																		
1990																		
1989																		
1988																		
1987																		
1986																		
1985																		
1984																		
1983																		
1982																		

KEY

- 7.4.23 PROGRAMME
- 8.4.4 PROGRAMME
- Undergraduate students of both Programmes
- EXAMINATIONS
- 7.4.23 Students sit for last University examinations in 1991
- 8.4.4 Students sit for first University examinations in 1993

PUPIL ENROLMENT—STANDARD 8 (1985)
 (BASED ON STANDARD 7 ENROLMENT—1984)
 SOURCE: DIRECT RETURNS FROM DISTRICTS

Province/District	Number of Streams	Number of Pupils
CENTRAL—		
Kiambu	656	23,911
Kirinyaga	276	9,926
Muranga	578	21,633
Nyandarua	243	8,543
Nyeri	546	23,327
Thika Municipality	24	789
TOTAL	2,323	88,184
COAST—		
Kilifi	268	8,901
Kwale	210	5,818
Lamu	43	1,037
Mombasa	138	6,054
Taita Taveta	166	5,435
Tana River	72	1,526
TOTAL	897	28,771
EASTERN—		
Embu	272	9,228
Isiolo	23	800
Kitui	494	17,552
Machakos	1,186	35,404
Marsabit	19	597
Meru	831	23,131
TOTAL	2,825	86,712
NAIROBI	367	12,834
NORTH EASTERN—		
Garissa	18	584
Mandera	15	286
Wajir	20	230
TOTAL	53	1,100
NYANZA		
Kisii	905	33,551
Kisumu	383	13,563
Kisumu Municipality	67	3,010
Siaya	425	14,694
South Nyanza	726	21,543
TOTAL	2,506	86,361

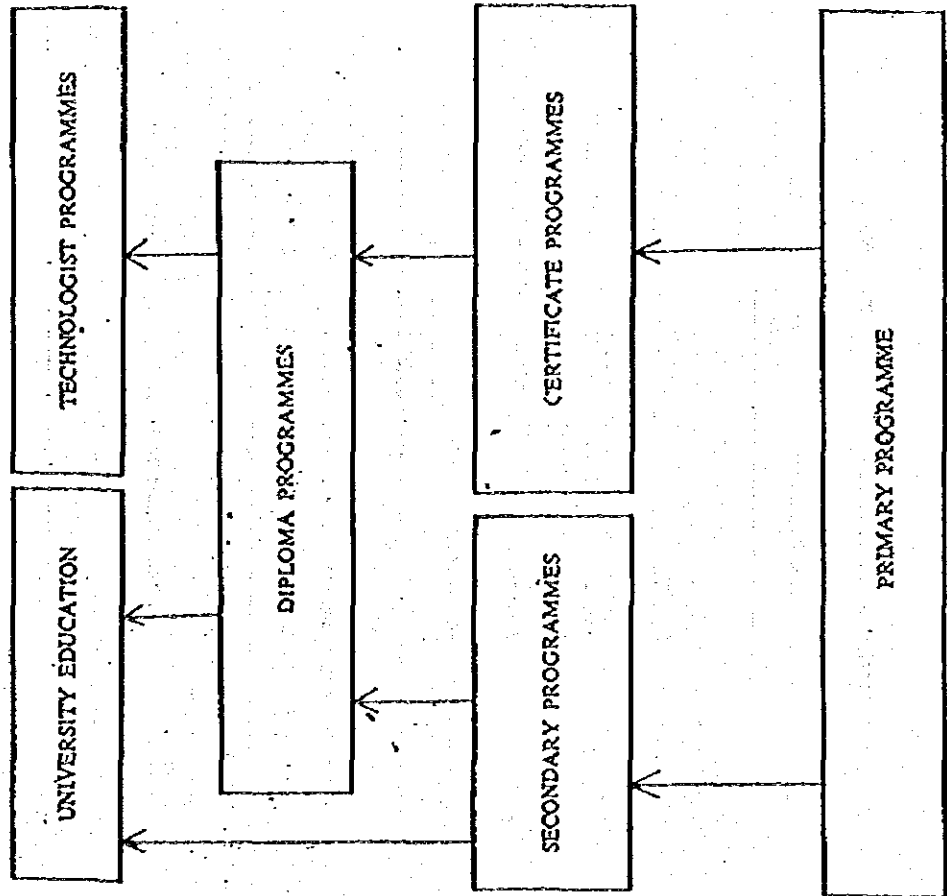
Province/District	Number of Streams	Number of Pupils
RIFT VALLEY—		
Baringo	208	7,009
Eldoret	25	1,070
Kajiado	102	3,208
Keiyo Marakwet	177	5,011
Kenya Municipality	606	21,590
Kisumu	13	595
Laikipia	163	4,152
Nakuru	412	16,037
Nakuru Municipality	60	2,408
Nandi	283	10,223
Narok	114	2,838
Samburu	36	788
Trans Nzoia	193	7,925
Turkana	32	774
Uasin Gishu	256	8,789
West Pokot	84	2,672
TOTAL	2,764	95,539
WESTERN—		
Bungoma	417	21,071
Busia	280	8,521
Kakamega	938	33,630
TOTAL	1,635	63,222
GRAND TOTAL	13,370	462,723

SUMMARY

Province	Number of Streams	Number of Pupils
1. Central	2,323	88,184
2. Coast	897	28,771
3. Eastern	2,825	86,712
4. Nairobi	367	12,834
5. North Eastern	53	1,100
6. Nyanza	2,506	86,361
7. Rift Valley	2,764	95,539
8. Western	1,635	63,222
GRAND TOTAL	13,370	462,723

TECHNICAL EDUCATION AND TRAINING

PROGRAMMES IN 8-4-4 SYSTEM



TEACHERS RECRUITED FOR PRIMARY CYCLE—1985

Province	Number Recruited
CENTRAL—	
Kiambu	585
Kirinyaga	250
Murang'a	526
Nyandarua	212
Nyeri	467
	2,040
COAST—	
Kilifi	244
Kwale	183
Lamu	43
Taita Taveta	146
Tana River	56
	672
EASTERN—	
Embu	246
Isiolo	14
Kitui	443
Machakos	1,189
Marsabit	17
Meru	738
	2,653
NORTH EASTERN—	
Garissa	13
Mandera	14
Wajir	16
	43
NYANZA—	
Kisii	783
Kisumu	348
Siaya	416
South Nyanza	672
	2,219

RE-ORGANIZATION OF EDUCATIONAL ZONES

Province/District	Number of Divisions	Number of Zones	Number of Schools
CENTRAL—			
Kiambu	7	11	305
Kirinyaga	3	7	166
Murang'a	5	14	385
Nyandarua	5	6	180
Nyeri	7	9	328
	27	47	1,364
COAST—			
Kilifi	4	10	259
Kwale	4	7	211
Lamu	5	0	39
Taita Taveta	3	6	138
Tana River	4	4	83
	20	27	730
EASTERN—			
Embu	3	8	205
Isiolo	4	0	29
Kitui	5	24	549
Machakos	8	41	1,183
Marsabit	6	0	35
Meru	7	30	790
	33	103	2,751
NAIROBI		5	141
NORTH EASTERN—			
Garissa	5	0	31
Mandera	4	0	29
Wajir	4	0	27
	13	0	87
NYANZA—			
Kisii	6	31	871
Kisumu	5	17	471
Siaya	5	17	529
South Nyanza	9	32	1,057
	25	97	2,928

TEACHERS RECRUITED FOR PRIMARY CYCLE—1985

Province	Number Recruited
RIFT VALLEY—	
Baringo	208
Kajiado	94
Keiyo Marakwet	166
Kencho	766
Laikipia	134
Nakuru	375
Nandi	262
Narok	95
Samburu	33
Trans Nzoia	196
Turkana	27
Uasin Gishu	235
West Pokot	76
	2,667
WESTERN—	
Bungoma	332
Busia	245
Kakamega	624
	1,201

PROVINCIAL SUMMARY

Province	Number Recruited
Central	2,040
Coast	672
Eastern	2,653
North Eastern	48
Nyanza	2,219
Rift Valley	2,667
Western	1,201
	11,500

STANDARD 8 CLASSROOMS REQUIREMENTS FOR 1985

Province/District	Number of Classrooms Required
CENTRAL--	
Kiambu ..	656
Kirinyaga ..	276
Murang'a ..	578
Nyandarua ..	243
Nyeri ..	546
Thika Municipality ..	24
	2,323
COAST--	
Kilifi ..	268
Kwale ..	210
Lamu ..	43
Mombasa ..	133
Taita Taveta ..	166
Tana River ..	72
	897
EASTERN--	
Embu ..	272
Isiolo ..	23
Kitui ..	494
Machakos ..	1,186
Marsabit ..	19
Meru ..	831
	2,825
Nairobi ..	367
NORTH EASTERN--	
Garissa ..	18
Mandera ..	15
Wajir ..	20
	53
NYANZA--	
Kisumu ..	905
Kisumu Municipality ..	383
Kisumu Municipality ..	67
Siaya ..	425
South Nyanza ..	726
	2,506

RE-ORGANIZATION OF EDUCATIONAL ZONES

Province/District	Number of Divisions	Number of Zones	Number of Schools
RIFT VALLEY--			
Baringo ..	6	16	350
Kajiado ..	4	18	127
Keiyo Marakwet ..	4	10	210
Kericho ..	6	25	525
Laikipia ..	4	6	147
Nakuru ..	6	14	299
Nandi ..	4	16	333
Narok ..	5	10	164
Samburu ..	3	4	67
Trans Nzoia ..	4	38	165
Turkana ..	5	4	69
Uasin Gishu ..	2	11	230
West Pokot ..	4	12	195
	57	184	2,881
WESTERN--			
Bungoma ..	7	22	444
Busia ..	3	10	295
Kakamega ..	10	31	837
	20	63	1,576

SUMMARY

Provinces	Number of Divisions	Number of Zones	Number of Schools
1. Central ..	27	47	1,564
2. Coast ..	20	27	750
3. Eastern ..	33	103	2,751
4. Nairobi ..	-	5	141
5. North Eastern ..	13	-0	87
6. Nyanza ..	25	97	2,928
7. Rift Valley ..	57	184	2,946 2,881
8. Western ..	20	63	1,576
GRAND TOTAL	195	530	12,493,763