

(b) Third Country Training

The department did not have someone to take up this training for the 1986/87 fiscal year. It will be possible to nominate candidates for the 1987/88 fiscal year.

2.2. ACADEMIC PROGRAMMES

2.2.1. OBJECTIVES

The syllabus sets out the objective of the course as follows:

- (i) Adoption and innovation of agricultural machinery, soil and water management practices, post harvest processes and structures.
- (ii) Development, operation and maintenance of agricultural machines.
- (iii) Development management of post harvest process equipment and structures.
- (iv) Planning, installation, utilisation and management of soil and water conservation.

2.2.2. COURSES

The diploma in Agricultural Engineering syllabus was approved by Kenya Institute of Education in April, 1986 providing for two specialised options: Soil and Water Engineering, and Agricultural Power and Machinery. The Diploma examinations will be set based on this syllabus beginning in 1987.

2.2.3. STUDENTS ENROLMENT

A total number of students by June, 1987 were 133 broken down as follows:

<u>1984</u>	<u>1985</u>	<u>1986</u>	<u>1987</u>	<u>TOTAL</u>
32	33	32	36	133

2.2.4. PERFORMANCE IN EXAMINATIONS

The table below shows the analysis of results of examinations held since 1984.

EXAM YEAR	CANDIDATES NUMBER	FAILED		REFERRED		PASSED	
		NO.	%	NO.	%	NO.	%
1985	29	1	3.4	9	31	19	65.5
1985	35	4	11.4	21	60		10
1984	35	9	25.7	10	28.6		45.7

It is noted that there was a marked improvement in examination results in 1986. It is expected that the trend will continue in future.

2.2.5. STUDENTS PROJECTS

Both Local and Japanese staff supervised students projects by 1934 students. The assessment of the items designed and fabricated by the students will make up one of the papers in Diploma examinations. The students displayed a high degree of initiative and workmanship.

2.3. TRANSFER OF TECHNOLOGY

Transfer of technology has been achieved through:

- (a) Interaction between local and Japanese staff.
- (b) Direct lecturing/demonstration to students.
- (c) Research projects.
- (d) Team teaching.
- (e) Production units.

In realisation of this, the teaching load of the Japanese staff has been reduced to give them time to consult with counterparts and conduct research.

2.3.1. RESEARCH

Staff were involved in various research projects for the last three years. As groups of staff worked together, there was very useful mutual transfer of technology. The following five projects have been completed:

1. 1985: "Investigation into the Courses of Tractor Breakdown at Government Mechanisation Centres" by Nagata, Mwangi and Mugucia.
2. 1986: "Basic Study on Development and Performance of Corn Sheller made in Kenya" by Nagata, H. Hasegawa, Ejima, Mwangi, Makanga.
3. 1986: "Study on Permeability of Soils in Kenya" by Tsunoda, S. Hasegawa, Kaluli, Makokha.
4. 1986: "Collection of Farm Tools Basic Data in Small Scale Farms in Kenya" by Nagata, Ejima, Makanga.
5. 1986: "Collection of Farm Tools Basic Data in relation to Use and Management by Small Scale farmers in Kenya" by Nagata, Makanga, Ejima.

Some other five projects are planned to start soon.

2.3.2. PRODUCTION UNITS

Implementation of this programme has not been done due to staffing problem. Final details are being worked out.

2.4. FACILITIES AND EQUIPMENT

Most of the equipment requested from JICA have been received for fiscal years 1985/86 and 1986/87. The balance for 1987/88 are awaited.

2.5. FUTURE PLANS

2.5.1. COMBINATION OF COURSES

In order to avoid duplication of courses and therefore achieve the highest utilisation of facilities and personnel, the Academic Board decided that the Agricultural Machinery Technician course will be phased out and that course be incorporated in Agricultural Power and Machinery Option with effect from 1988. Staff from the two departments will work out the best strategy for implementing of the decision.

2.5.2. VERTICAL EXPANSION

- (a) HND Courses: According to the Master Plan, a HND Course in Agricultural Engineering (Soil and water, and farm Power and Machinery options) is scheduled to start in 1990.
- (b) B.Sc. Courses: According to the Master Plan, a B.Sc. course in Agricultural Engineering is scheduled to start in 1994.

2.6. CONCLUSIONS AND RECOMMENDATIONS

2.6.1. While there has been an improvement in the staffing, appointment of extra staff may be adversely affected by the grading of staff by ISC compared to say Ministry of Agriculture. It is hoped that the ISC will resolve this issue of differences in remuneration.

2.6.2. Most of the JICA equipment have been received for 1985/86 and 1986/87 and extra equipment have been bought locally with funds from Kenya Government. However, we have realised problems in regard to spare parts and especially for farm machinery.

In order to solve the problem, it is suggested that:-

- (a) JICA provides spares for equipment already provided.
- (b) JICA provides funds to purchase certain equipment locally from reliable agents.

- 2.6.3. Where candidates could not be nominated for training due to lack of staff, such scholarships should be carried over to the next co-operation period.
- 2.6.4. There has been a marked improvement in Diploma examination results. This is attributed to improvement in the staffing situation.
- 2.6.5. There has been valuable transfer of technology through planned interaction between local and Japanese staff in research and team teaching.
- 2.6.6. The Kenya Government has been providing adequate funds to purchase teaching materials and certain extra equipment.
- 2.6.7. New requests have been made in the Master Plan 1988 - 1992. It is hoped that JICA will approve this request in order to implement the programmes therein.

3. DEPARTMENT OF FOOD TECHNOLOGY

3.1. INTRODUCTION

The Food Technology Department currently offers a 3 year diploma course in Food Technology, intended to transfer skills to middle level personnel required by the food industry.

3.2. STAFFING

3.2.1. STAFF LIST

<u>NAME</u>	<u>QUALIFICATIONS</u>	<u>DESIGNATION/SUBJECT AREA</u>
L.G. Nyaga	B.Sc. (FST), MIFST	PL/HOD, Food Engineering
L. Mwanjua (Miss)	M.Sc.	SL, Food Technology
M.K. Kinyua (Mrs)	B.Sc. Food Technology	Lect., Food Technology (Principles of preservation, specific products technology)
I.W. Wandati (Mrs)	B.Sc. Food Technology	Lect., Food Technology
C. Kiiyukia	B.Sc.	Lect., Food Hygiene/Microbiology
P.N. Kariuki	FTC	AL, Lab. Practice Technical Drawing
S.G. Gichuru	B.Vet.Med.	AL, Food Hygiene/Microbiology
K. Kang'ethe	B.Sc.	AL, Food Technology
G.M. Kenji	B.Sc.	AL, Food Analysis
R. Omolo	B.Sc.	AL, Meat Technology
I. Sugiyama	M.Sc. Chem. Agric.	Japanese Team Leader, Food Chem.
S. Tsukamoto	M.Sc. Chem. Agric.	Expert, Food Processing
M. Aranishi	B.Sc. Chem. Agric.	Volunteer, Food Analysis
S.N. Kaguthi	HND	Senior Technician
G.K. Kiarie	Ordinary Diploma	Technician
M. Muangi (Miss)	"	"
H. Muangi (Miss)	"	"
E. Gichuru (Miss)	HND	"
S. Mvoti (Miss)		Technician Trainee

3.2.2. STAFF DEVELOPMENT

Dr. Gichuru, Miss Mwanjua and Mrs. Wandati were trained under JICA scholarships in 1985, 1986 and 1987 respectively. Mr. Kenji and Mr. Omolo are on study leave under MOE scholarships.

3.3. ACADEMIC PROGRAMMES

3.3.1. OBJECTIVES

The objectives of this department as regards academic programmes are:-

- (a) Revision of the original syllabus to suit the needs of the graduates and then their potential employers;

- (b) Institute a second Diploma Course in Nutrition and Dietetics towards the end of the period;
- (c) Greater emphasis on appropriate technology rather than highly sophisticated costly machinery;
- (d) Initiation of development of Higher National Diploma Syllabi;
- (e) Increase the quality of training, i.e. raise the performance of students in examination.

3.3.2. COURSES

The department presently continues to offer a single programme i.e. a 3 year Diploma in Applied Sciences (Food Technology).

The department's name was changed from Food Processing to Food Technology in 1987, to reflect more clearly its present activities and aspirations for the future. Plans are underway to commence short term courses for selected food industry groups during holiday months.

3.3.3. STUDENT ENROLMENT

The table below shows the trend of students enrolment during the period.

<u>YEAR</u>	<u>NO. OF STUDENTS</u>	<u>TOTAL DEPARTMENTS STUDENTS</u>	<u>NO. OF INSERVICE</u>
1984	19	60	5
1985	12	51	2
1986	12	42	0
1987	20	43	5

In 1985, out of the 12 students, one was exceptionally poor in academic performance and was subsequently discontinued.

3.3.4. PERFORMANCE IN EXAMINATION

Performance in KNEC examinations over the period is shown in the Table below. It reflects a slightly poor trend especially in 1986 when 32% of the students were referred in a single subject. The cause of the problem was identified and due to staff improvement it is expected that the trend will improve in future years.

<u>YEAR</u>	<u>NO. OF CANDIDATES</u>	<u>PASSED</u>	<u>%</u>	<u>REFERRED</u>	<u>%</u>	<u>FAILED</u>	<u>%</u>
1984	15	15	100	-	-	-	-
1985	19	13	90.5	1	4.8	1	4.8
1986	19	13	68	6	32	-	-

3.4. TRANSFER OF TECHNOLOGY

3.4.1. RESEARCH

Several research projects were carried out during the periods shown below:

<u>PROJECT</u>	<u>RESEARCHERS</u>	<u>YEAR</u>	<u>SOURCE OF FUNDS</u>
1. Manpower requirements survey - Kenya Food Industry	Mr. Watanabe	1985	JICA
2. Utilization of agric. wastes through edible mushroom culture	Mr. Sugiyama Mr. Akimoto Mr. Kenji	1986	JICA
3. Study utilization of available crops flour for baking	Mr. Tsukamoto Mr. Aranishi Mrs. Wandati	1987	JICA

3.4.2. PRODUCTION UNIT

Production of various Food Products on a commercial basis has been initiated.

The potential of the venture is enormous. KBS certification mark is being sought for the products.

3.5. FACILITIES AND EQUIPMENT

There were no actual facilities constructed during the period. Most of the ordered equipment were received during the period.

3.6. FUTURE PLANS

- (a) Commence the second Diploma Course in the academic year 1988/89. In this regard, prepare institutional report on the manpower requirements in the short term and arrange for sponsorships both from public and private sector.
- (b) Initiate drafting of HND syllabii in preparation of commencement of the following courses options: Cereal Technology; Food Engineering; Quality Control; Meat Technology; Post Harvest Technology; Confectionery.
- (c) Finalization of arrangements for the running of industrial short courses - (market surveys, resource personnel etc.).

- (d) Vigorously re-advertise the department among the industrial community to attract in-service students and potential employers for departments graduates
- (e) Seek further new fields in which courses can be organised for specific industries (milling, fruits, and vegetables, fermentation, dairy etc.).

3.7. RECOMMENDATIONS

To achieve the future plans listed under section 5, there are several prerequisites that are to be observed:

3.7.1. STAFF DEVELOPMENT

The teaching staff is the foundation of the department. Their qualifications as well as job satisfaction are essential factors in the growth of the department. Training of staff has to be accelerated to keep in pace with the planned for vertical growth of the department. Teaching staff must achieve their M.Sc. and Ph.D. at a faster rate.

Toward this goal, the following are recommended:

- (a) Provision of JICA Training facilities for M.Sc. and Ph.D. at the local universities, mainly in the Department of Food Technology and Nutrition, Nairobi University. Just like the rest of the Third World Universities, Nairobi should be included in the list of those accepted by JICA for local staff. This local training has the benefit of ensuring that a member of staff can continue teaching at the department while pursuing his post-graduate programme. Further, the utilization of departmental equipment for their research projects is assured.
- (b) Increase the number of MOE scholarships available annually.

To improve the quality of teaching, members of staff who can achieve training must be increased.

Another factor in staff development is advancement in one's career. Employment advancement of departmental staff must be given the emphasis it requires if we have to expect them to achieve the goals set.

3.7.2. STUDENT PLACEMENT

In the past years, there has arisen a problem of placement of students who have graduated from the department (see appendix). This has even resulted in the student enrollment being lowered. We suggest the following to alleviate the problem:

- (a) Involvement of the College Administration and Departmental staff in publicizing the course programme and intervening on behalf of the students with potential employers.
- (b) Organising regular occasions whereby industrial managers can come into contact with departmental students, e.g. short seminars, individual guest lecturer by invitation etc.
- (c) Emphasis on self employment for departmental graduates.
- (d) Emphasis on small scale, especially appropriate technology. This would give the graduates a possibility of utilizing their knowledge in rural settings.

4. DEPARTMENT OF HORTICULTURE

4.1. INTRODUCTION

The Department offers a three year Diploma Course in Horticulture. The Course is designed to train specialised manpower required in the horticulture industry in Kenya. The graduates from this department will be competent enough to work in agricultural extensions as well as other relevant Government Ministries, Research Institutions, Parastatal Bodies, Horticulture Industry etc. The graduate will also be academically qualified to teach in Junior Agricultural Colleges as well as being a demonstrator in other Agricultural Institutions of higher learning.

4.2. STAFFING

<u>Name</u>	<u>Qualifications</u>	<u>Designation</u>	<u>Remarks</u>
Kahangi, E.M.	B.Sc(Hort),M.Sc (Crop Science)	P. lecturer	Head, Department (Study Leave)
Ritho, C.W.	B.Sc.(Agric),M.Sc. (Agric.Econ)	S. Lecturer	D/Head of Dept.
Gichuki,E.M.	B.Sc.,Dert. (Applied Ent)	Lecturer	Ag. Head of Dept.
Aduati, G.J.	B.Sc. (Agric)	Lecturer	Ag. Dean of Students
Watako, A.O.	B.Sc. (Agric) Cert.Floriculture)	Lecturer	
Dautere, E. E.	B.Sc.(Agric) Cert. (pomology)	lecturer	
Karugu, W.N.	B.Sc.(Agric) M.Sc. (Agric)	Asst. Lecturer	
Kingori, P.N.	B.Sc.(Agric)M.Sc. (Agric)	Asst. lecturer	
Mburi, G.M.	B.Sc.(Agric) Cert., (Olericulture)	Asst. Lecturer	
Murage,H.	B.Sc.	Asst. Lecturer	Study leave Japan
Agumi, V.W.	B.Sc. (Ed)	Asst. Lecturer	"
Moriya, H.	B.Sc. (Agric)	Expert	
Nakamura	PhD(Agric)	Expert	

<u>Name</u>	<u>Qualifications</u>	<u>Designation</u>	<u>Remarks</u>
Maangi J. K.		Lab. Attendant	
Chege, H.W.		Lab. Attendant	
Kimuyu, F.M.K.		Lab. Attendant	
Kamau (Mrs)	Diploma (Agric)	Chief Technician	

4.2.2. Staff Development

At present, nearly all the staff requirements for the department has been acquired. This means that the department can operate with minimum assistance from Japanese Experts and Volunteers.

However, the future development of the department aimed at training at Bachelor's degree level would need further training of the present teaching staff.

Since 1985 the following people have been trained in Japan:

Gachathi Karugu, (Mrs)	Agricultural Co-operatives - 6 months
Ngumi	Botany - still in Japan
Kunja	Plant Breeding - still in Japan
Kahangi (Mrs)	Tissue Culture - Still in Japan.

4.3. ACADEMIC PROGRAMMES

4.3.1. Syllabus

The syllabus has gone through the appropriate panels of the Kenya Institute of Education and is now more or less ready for approval.

4.3.2. Student Enrolment

The Department has continued to admit 30 students annually.

The table below shows the ratio of students' intake according to their level of education ("O" or "A" level), whether they are pre-service or inservice, and their sex.

YEAR	"A"/"O"	PRE-/INS-	F/M	TOTAL
1984	5/20	25/5	15/15	30
1985	6/15	21/9	13/17	30
1986	7/17	24/6	10/20	30
1987	(Final distribution awaited)			30

Every year the fresh intakes take a long time to report in the College e.g 1985 freshers reported from July - September, and 1986 from July - October.

This created unnecessary problems in the department regarding teaching these students.

4.3.3. Diploma Examinations

After every 3 years students take external examinations. The results have been as follows:

	1984	1984 (Resit)	1985	1986
Total Sitting	29	13	33	46
Total Pass	16	8	14	42
Dist. Pass	0	0	0	0
Credit pass	7	0	1	16
Pass	9	8	13	26
Referrals	13	5	18	3
Fail	0	0	0	0
%Pass	55.2	61.5	42.4	91.3

NOTE

There were 3 repeaters in 1985 and 19 repeaters in 1986.

4.3.4. Special Projects

The Department has continued to have students undertake special projects in their 2nd and 3rd years of study.

4.3.5. Deployment of Graduate

Most of the graduates of the department have been employed by the Ministry of Agriculture. A small number has been taken up the private sector.

4.4. TRANSFER OF TECHNOLOGY

The department has benefited a great deal from effective of technology which has occurred during the extended period of co-operation, as summarised below:-

4.4.1. Preparation of Teaching Materials

A practical manual in Horticulture was prepared and published with funds provided by JICA. Another manual on procedure for soil analysis was prepared by Mr. Tanaka. Mr Takao collected and prepared about 300 specimens of insects which the department is using for teaching.

The following Japanese/Kenyan staff are working or have worked together in the fields specified in teaching or research

Mrs Kahangi	-	Moriya	Tissue Culture
Mrs Kahangi	-	Fujime	Tissue Culture
Miss Omutere	-	Moriya	Pomology
Mr. Watako &	-	Takahashi	Flower Growing
Mr. Kinyanjui	-	Nakamura	
Mr. Kimuyu &	-	Tanaka	Laboratory Management
Miss Mwangi			

4.4.2. Research

The following research projects have been done:

1. Multiplication of pathogen free planting materials through Tissue Culture done by Fujime and Kahangi.
2. Vegetable seed production in Kenya by Fujime and Kahangi.
3. Soil fertility analysis in JKCAI Farm by Tanaka.

Two papers have been completed as follows:

1. "Rapid Multiplication of Pathogen Free and Nursery Horticultural plants by Tissue Culture" by Mrs Kahangi and Fujime.
2. "A Flora of Vascular plants at Jomo Kenyatta College of Agriculture and Technology, Central Province, Kenya" by Seki and Ngumi.

4.4.3. Production Unit

A production Unit Committee was formed in the department in 1986. The Committee started growing the following crops:

Onions	-	$\frac{1}{2}$ acre for trial to see whether local people can consume it.	Realised Kshs.460.00
Potatoes		$\frac{1}{4}$ acre planted	
Seedlings of Mangoes)		
Seedlings of Avocados)		Realised Ksh.53,437.20
Seedlings of Citrus)		

The total amount of money obtained from the production unit work Ksh.70,897.20. In addition to giving the College some income, the unit provided opportunity for student practicals and field attachment.

4.4.4. Seminar By Japanese Experts

Visiting Japanese Experts presented special Seminars as follows:

1985	-	Dr. Mayama:	Plant Pathology
1985	-	Dr. Fujime:	Flower Initiation in Cauliflower
1987	-	Mr. Tanaka:	Soil Fertility in JKCAT Tuition Farm.

4.5. EQUIPMENT AND MATERIALS

The department received all the equipment and materials that were requested from JICA. In addition more materials and equipment were acquired locally using the College budget provided by the Kenya Government.

4.6. FUTURE OF THE DEPARTMENT

Since there is no provision in Kenya's manpower establishment for holders of Higher Diploma in Horticulture, the department considered it unworthy to start it. It was therefore decided that the best way for the department to grow would be to start offering Bachelors' of Horticulture degrees.

Developing the department in this line would be a very welcome idea as so far no other institution is offering this type of training in Kenya to help the small scale farmer. In addition the future of Horticulture industry is extremely bright in this country which today is only second to coffee as a foreign exchange earner. As of today the College has received quite a bit of praise from the Horticultural Crops Development Authority (HCOA) and from the Chief Extension Officer in the Ministry of Agriculture about the good performance of our graduates in the field.

4.7. RECOMMENDATION

To achieve the above goals, the department would have to train the present manpower so that they can teach up to the degree level.

As of today, most of the staff in the department have been given some intensive training in Japan, but not all have been adequately prepared for teaching Bachelor's degree students. The present arrangement for training people in Japan, or any third country might not be enough. It is therefore, highly recommended that the Japanese Government consider sponsoring staff in our local Universities for post-graduate training.

Other physical facilities like lecture theatres laboratories, equipment and the Library have to be expanded.

5. THE TUITION FARM

5.0 PRIMARY OBJECTIVES

Tuition purposes - mainly for those students taking courses in Agriculture.

Sources of raw materials for other Departments e.g. Food Technology Department and Horticulture.

Research purpose - both for students and for staff.

Demonstration purpose - for extension purpose to the community around and within the College particularly those not taking courses in agriculture.

For production purposes.

It can be said that these objectives are being met or being achieved.

STAFFING

Staff List

<u>Name</u>	<u>Post</u>	<u>ESTABLISHMENT</u>	<u>RECRUITED</u>	<u>DEFICIENCY</u>
Vacant	Farm Manager	1	0	1
Mwikamba Kaibui	Ass. Farm Manager	1	1	0
B.M. Kananda	Vegetable Demon.	2	2	0
E.N. Ireri	Vegetable Demon.			
N.N. Gichia	Livestock Demon.	2	1	1
C. Kinishu	Irrigation Demon.	2	1	1
N. Kamau	Demon. Field Crops	1	1	0
B. Oloo	Fruit Demon.	1	1	0
P.K. Mgethe	Flower Demon.	1	1	0
Others	General Workers	40	39	1

5.1. JAPANESE STAFF

<u>Name</u>	<u>Arrival</u>	<u>Field of Specialization</u>
N. Morita	May, 1983	Vegetable growing
N. Nozaka	June 1985	Irrigation

<u>Name</u>	<u>Arrival</u>	<u>Field of Specialization</u>
K. Aoki	December, 1985	Farm machinery
Prof. Shimamura	August, 1986	Short term Expert
Y. Ban	December, 1985	Volunteer - fruits
A. Tanaka	August, 1985	Volunteer - Livestock

The College will employ more workers as need arises.

5.3. STAFF TRAINING

- P.K. Ngethe - Japan for 6 months in floriculture
- Mrs. M. Kamau - Nominated for 3rd World Training

FARM PROJECTS

The Pilot project was completed in February 1985. The primary objective was to expose our students to as many practical skills as possible. The operation did not start immediately because the storage pond was found to be leaking. After some repair, the operation started.

5.3.1. LIVESTOCK

Aim: to provide raw materials to departments and for research purpose, and possibly prepare for courses in Animal Husbandry.

Cattle

The Total number of cattle is 84. The production is 4200 Kgs milk per month (May 87). This production is below requirement of the user departments. These department require 6000 Kgs of milk. The target therefore is to increase the herd to 100, so that at any time, there can be 30 lactating cows.

Pigs

These were introduced in 1984. At present, the breeding herd is made up 4 (four) sows and one (1) boar. There are 24 weaners. Their products are mainly used by Food Technology Department for practical work by students.

5.3.2 Pasture and Fodder Crops

The College is situated in a marginal zone and it is therefore difficult to have enough pasture for the livestock, especially during the dry period of the year.

To overcome this problem the following has been grown:

<u>Area</u>	<u>Fodder Grown</u>	<u>Target</u>
4 ha.	Rhodes grass	8 ha.
0.47	Napier grass	1 ha.
0.2	Sweet potatoes	0.3 ha.
0.10	Lucerne	0.5 ha.
<u>4.77</u>		<u>9.8 ha.</u>

When the target is achieved, the farm will be able to keep more animals.
At least 150 cattle.

Paddocking

Aim - To control grazing and to make proper utilization of the pastures.
The farm has been divided into 10 paddocks excluding the central 20 hectares which is under irrigation.

5.3.3. CROPS

Vegetables

These are grown in block "A". Block "A" is 4 hectares and is divided into 40 plots each measuring 0.1 hectares. It is in this block where most projects dealing with vegetables are done. The vegetables grown here include cabbages, tomatoes, spinach green pepper, kale, peas, onions, and carrots.

Flowers

Mainly grown in the green houses for teaching purposes.

Annual Crops

Grown in Block "B" and "C". The annuals grown include maize, beans, and potatoes which are normally required by the students for practicals purposes.

Area Grown:

1.2 ha. Beans
1.5 ha. Maize

Fruit Orchard

Aim - to provide practical aspect on growing fruits to students:

<u>Fruits</u>	<u>Area</u>	<u>Planned</u>
Citrus	1.3.	2.6.
Mangoes	0.35	0.6
Passion Fruit	0.2	0.2
Paupaw	0.1.	0.2.
Avocado	0.16	0.2.

Holes for citrus, Avocados, Mangoes are ready and will be planted soon. When the target planned is achieved, it will cater for more students to learn and to carry out specified research as need arises.

5.3.4. Irrigation

Due to unreliability of rainfall, the following irrigation systems has been set up.

- Sprinkler irrigation - being done in vegetables.

- Drip irrigation - has been set in paupaw, passion fruit and citrus fields.

- Farrow irrigation - has been set in the mangoes field.

Note:

These systems provide opportunities for students to learn different types of irrigation systems.

5.4. MACHINERY AND EQUIPMENT

The department has received a lot of equipment from J.I.C.A. In addition the College has also bought quite a number of equipment (implements). The only problem is lack of readily available spares for the machinery.

To safeguard the machinery, the stores and the machinery sheds have been renovated.

5.5. FUTURE PLANS

5.5.1 livestock

Dairy

Increase present 20 cows in milk to 30. This will enable us to meet the requirement of 6000 kgs of milk required by various departments.

Feedlot

Start keeping 5 animals and use feedlot system to compare with grazing in the field.

Poultry

Start keeping 500 layers to provide production materials to teaching departments.

Rabbit Unit

Start a unit of 2 bucks and 8 does.

Sheep and Goat

Keep 20 goats and 20 sheep for meat, to provide materials for meat technology.

Fish

Start keeping fish in the small storage pond.

Bees

Start 10 beehives for rearing bees.

Expansion

Pigs - to increase the number to 8 sows, 1 boar and 60 fattenerys at any time.

Calf Pen - to put a permanent calf pen to cater for 30 calves at any one time.

5.5.2 CROPS

Complete planting as follows:

citrus	1.3 ha.
Mangoes	0.25 ha.
Pawpaw	0.1 ha.
Avocado	0.04 ha.
Grapes	0.2 ha.

All these are in block "D"

Start developing block "E"

CONCLUSION AND RECOMMENDATION

Training: to develop a training policy for senior staff in the farm. This will provide motivation for them to work more and prevent them resigning so often.

Equipment and Spares

A way of getting spares need to be decided, either by giving equipment with spares or funds be provided to buy equipment which spares are available locally.

5.53. Storage Pond

A lasting solution to the leaking pond needs to be found.

5.54. Soil

The farm soil poses a big problem due to its nature. Heavy manuring is necessary or soil dressing.

5.55. Aid in terms of equipment and personnel is still necessary.

FACULTY OF ENGINEERING

6. DEPARTMENT OF BUILDING AND
CIVIL ENGINEERING
7. DEPARTMENT OF ELECTRICAL AND
ELECTRONICS ENGINEERING
8. DEPARTMENT OF MECHANICAL
ENGINEERING

6. DEPARTMENT OF BUILDING & CIVIL ENGINEERING

6.1. INTRODUCTION

The Department of Building & Civil Engineering was started in 1981, when the College opened its doors to the first group of students. The Department started with three courses i.e.:

- (a) Building Construction Technician (16 students)
- (b) Architectural Technician (12 students)
- (c) Irrigation Engineering Technician (16 students)

In 1982, the students doubled and in each following year, students number increased until July 1985 when the first group graduated after four years and three months. Today, each course has five (5) groups of students.

In 1981, only few members of local teaching staff were available, but as the College grew, the number of teaching staff increased. Today, the department has twenty two (22) local teachers, three (3) Japanese experts and three (3) Japanese volunteers. The Department laboratories and workshops are manned by eleven (11) Technicians. It is felt that the number is too low and the request has been made for the number to be increased at least two (2) technicians per laboratory.

6.2. STAFFING

6.2.1. STAFF LIST

The staff list for the department is shown overleaf.

STAFF FORCE AND STAFF FUTURE PROJECTION

NAME	PRESENT QUALIFICATIONS	GRADE	COMMENT	FUTURE QUALIFICATION REQUIREMENT
1. N. G. Maura	Certificate Grade 4 Building Technology T.T Certificate	Senior Lecturer	H.O.D. From six month study leave in March '86 WORKSHOP PRACTICE.	MSc.
2. P. N. Kadero	HND Building Economics	Lecturer	C.Tutor. Leaving for one year study leave	Msc. Environmental Science
3. D. M'Muhanda	HND Building & Civil Engineering	Ass.lecturer	Asst. Course Tutor	Msc. Building Engineering
4. F. M. Rwanda	HND Building & Civil Engineering Building Economics	Ass.lecturer	One year Study leave	Msc. Building Engineering
5. G. Wanyona	B.A Building Economics Msc. Bld. Engineering	Lecturer	Asst. Course Tutor	PhD. Dr. Building Construction Management
6. J. W. Kihari	B.A Building Economics	Lecturer	Construction Management Quantity Surveying	Msc. Constructional Management
7. P. M. Mwenda	HND Civil Engineering Structures	Asst.lecturer	Leaving in '88 for study leave to Japan Conc. Lab.	Msc. Structural Engineering.
8. S. A. Otera	HND Civil Engineering Structures	Ass.lecturer	One year study leave in Osaka University Japan.	Msc. Structural Engineering
9. P.I. Njagi	HND Civil Engineering Structures	Asst.lecturer	Concrete Laboratory	Msc. Structural Engineering
10. J.K. Mutela	Bsc. Surveying & Photogrametry	Senior Lecturer	Two years study leave in Totori University Japan	Msc. Urban and Town planning
11. G. M. Mbogo	Bsc. Surveying & Photogrametry	Lecturer	Surveying & Photogrametry	Msc. Engineering Surveying
12. W.M. Karaba	Bsc. Civil Engineering	Ass.lecturer	Public Health, Hydrology & Hydraulic	Msc. Civil Engineering
13. S.A. Akuru	B.A & Post Graduate Architecture	Lecturer	Course Tutor Architecture	M.A Architecture
14. A.G.Githaiga	B.A Architecture	Ass.lecturer	Ass. Course Tutor Architecture	M.A & Phd. Dr. Architecture.
15. J.M. Shariff	HND , Structures Certificate Hydraulics	Lecturer	Two years study leave in Totori University Japan.	Msc. Phd. Dr. Hydraulic
16. J.K. Mwangi	HND Water Engineering Certificate Irrigation	Lecturer	Foundation Engineering & Irr. Design & Construction	Msc. Water Resources
17. M. Nyandwa	HND Water Engineering	Ass.lecturer	Leaving in August for studies in Japan	Msc. Water Resources
18. J.G. Kaneru	HND Civil Engineering Highway Option	Ass.lecturer	One year study leave in Osaka University Japan	Msc. Civil Engineering
19. G.M. Thurbi	HND Structures Certificate Public Health Engineering	Lecturer	Course Tutor Irrigation P.health / Structures	Msc. Public Health Engineering
20. F. Ndiranga	HND Water Engineering	Ass.lecturer	Public Health and Concrete Laboratory	Msc. Public Health
21. N. Karubi	BCT II Cert. Advcr. Craft Certificate Carentry & Joinery Certificate Woodwork	Ass.lecturer	Returned from study leave in March, '86 Incharge Carpentry Workshop	HND Building Technology & Craft Practice
22. S. Mborothi	Craft part III (F.T.C) Mechanical Services Certificate	Lecturer	D/H.O.D I/C Plumbing Workshop	HND Building and Technology Services Craft Practice

STATE FORCE AND STAFF FUTURE PROJECTION (TECHNICALS)				
NAME	PRESENT QUALIFICATIONS	GRADE	COMMENT	FUTURE QUALIFICATION REQUIREMENT
1. C. N. Mungai	Part III Technician Architecture	Technician	Drawing Office and Printing	RND Architecture
2. J. M. Gichira	Part III Technician Building Construction.	Technician	On study leave	Bac. Civil Engineering
3. S. K. Nganga	Part III Technician	Technician	Hydraulic Laboratory	RND Water Resources
4. F. M. Kanani	O.D Building & Civil Engineering	Technician	Reinforced Concrete Laboratory	RND Structural Engineering
5. D. O. Sitandi	Part III Technician	Technician	Foundation Engineering Laboratory	RND Civil Engineering
6. J. G. Mwangi	Part III Technician	Technician	Currently Surveying & Photogrametry	RND Building Economics
7. A. K. Muiru	Final Craft Certificate	Artisan	Masonry Workshop	Part III Building Technology and Craft Certificate.
8. R. K. Ogeto	Final Craft Certificate	Artisan	Masonry Workshop	Part III Building Technology and Craft Certificate.
9. J. K. Ngugi	Final Craft Certificate	Artisan	Carpentry & Joinery Workshop	Part III Building Technology & Craft Certificate
10. P. K. Murega	Final Craft Certificate	Artisan	Plumbing Workshop	Part III Building Technology and Craft Certificate.

JAPANESE STAFF

NAME	QUALIFICATIONS	COMMENT/SUBJECT AREA
S. Kimura	First Grade Registered Architect	Expert/Asst. Team Leader, Architecture.
N. Arai	M.Sc. Soil Mech. (California), M.Sc. B.Sc. Hydraulic & Hydrology (Tokyo)	Expert, Soil Mechanics & Concrete Technology
M. Takimoto	B.Sc. Architecture (Waseda Univ.) Registered Architect.	Expert in Architecture
S. Oya	B.Sc. Civil Engineering	Volunteer, Hydraulics & Hydrology
Y. Kato	Grade II Architect (Japan)	Architecture
Y. Furuki	2nd Class Surveyor (Japan)	Land Surveying

6.3. ACADEMIC PROGRAMMES

6.3.1. COURSES OFFERED

The department conducts three courses, each comprising of 5 groups, namely:

- (i) Building Construction Technician - 5 groups
- (ii) Architectural Technician - 5 "
- (iii) Irrigation Engineering Tech. - 5 "

6.3.2. TRAINING PATTERN

Technician training has been previously covered in Eight theoretical terms sandwiched by five practical terms, totalling thirteen terms or 4½ years. It was decided to reduce the duration by three terms, without affecting theory terms. In this respect, students who were admitted in May, 1986 and subsequent years will have their courses last for eleven terms or three and a half years.

6.3.3. SANDWITCH PATTERN

This is an integrated training designed to achieve the following aims and objectives:-

- (a) Routine technical theoretical training which includes associated practical training in workshops and laboratories. This is carried out in what is commonly known as "Theoretical Terms". It should be understood that the amount of practical work undertaken during the theoretical term is very limited. To accomplish well organised practical training, the Department has organised practical attachment in the College where students work in the project full time during the term, until they sit for Part II examinations.
- (b) While students are awaiting Part II examination results, industrial attachment is organised with their sponsors and private companies, where students are attached for (four months including vacation). This affords the students extended opportunity in practical training, as compared to (a) above.

With combinations of (a) and (b) the students will graduate well prepared to take full charge of their working environment on graduation, which is required of a Technician. Infact, this has been already revealed by 1985 and 1986 graduates from the College. Their performance has made the name of this College well known country wide.

6.3.4. COURSE OBJECTIVES

Objectives of these courses are to train men and women to meet the need of:-

- (1) Construction industry for Technical staff who can understand, produce, interplate building drawings, carry out and record site information and take quantities for estimating purposes.

- (2) Architects officers and who are competent in site investigation, simple planning, site layout, levelling and site survey and the application of Building Regulations to simple problems of layout.
- (3) Water resources in irrigation schemes for technically qualified staff on the site who should have sound understanding of the principles of water resources, irrigation engineering, their nature and the relevant techniques of design and construction, through practical approach.

6.3.5. STUDENTS ENROLMENT

COURSE	1981	1982	1983	1984	1985	1986	1987	TOTAL
Building Cons. Technician	16	16	16	16	16	16	16	112
Architectural Technician	12	12	12	16	16	16	16	100
Irrigation Engin. Technician	16	16	16	16	16	16	16	112
TOTAL NUMBER	44	44	44	48	48	48	48	324
Year of Part III Examination	July 1985	July 1986	July 1987	July 1988	July 1989	Dec. 1989	Dec. 1990	

6.3.6. STUDENT PERFORMANCE IN EXAMINATIONS

COURSE	ST. NO.	CREDIT		PASS		REFERRED		FAIL		OVERALL % PASS
		NO.	%	NO.	%	NO.	%	NO.	%	
PART II 1986										
JULY										
BCT	16	4	25.0	6	37.5	4	25.0	2	12.5	63
ART	12	4	33.3	6	50	2	16.7	-	-	83
IRT	14	3	21.4	9	64.3	2	14.3	-	-	86
PART III 1986										
JULY										
BCT	14	5	35.7	9	64.3	-	-	-	-	100
ART	11	3	27.3	5	45.5	3	27.3	-	-	73
IRT	9	2	22.2	3	33.3	3	33.3	1	11.1	56
PART I 1986										
DECEMBER										
BCT	14	8	57.1	6	42.9	-	-	-	-	100
ART	14	8	57.1	4	28.6	2	14.3	-	-	86
IRT	15	6	40	5	33.3	4	26.7	-	-	73
PART II 1985										
JULY										
BCT	15	11	73.3	3	20	1	6.7	-	-	93.3
ART	13	8	62	5	38	-	-	-	-	100
IRT	15	6	40	5	33.3	4	26.7	-	-	73.3
PART III 1985										
JULY										
BCT	12	3	25	8	67	1	8	-	-	92
ART	9	3	33.3	4	44.5	1	11.1	1	11.1	77.8
IRT	15	4	31	8	62	1	7	-	-	93
PART I 1985										
DECEMBER										
BCT	15	6	40	5	33.3	3	20	1	1	73.3
ART	13	4	30.8	6	46.2	3	23	1	1	77
IRT	15	5	33.3	6	40	4	26.7	-	-	73.3

6.3.7. SUCCESS IN PRACTICAL ATTACHMENT

Below are achievements which have shown themselves during the short period of training:-

- (a) Good performances of students at external exams.
- (b) Confidence of students at assignments
- (c) Real and useful projects to be seen at the College
- (d) Display of students projects on graduation day.
- (e) Practical Surveying exercises
- (f) Shop drawing
- (g) Experiment in Hydraulics
- (h) Part III examination project for continuous assessment.

6.3.8. PROBLEMS OF PRACTICAL ATTACHMENT AT THE COLLEGE

- (a) Lack of accomodation for students in and around the College
- (b) Unavailability of qualified and practical orientated staff for proper supervision of projects.
- (c) Lack of spacious facilities such as workshops and laboratories.

6.4. TRANSFER OF TECHNOLOGY

6.4.1. PREPARATION OF TEACHING MATERIALS

<u>JAPANESE STAFF</u>	<u>LOCAL STAFF</u>	<u>SUBJECT OF SPECIALISATION</u>
Mr. S. Kimura	Mr. Githaiga	Architecture
Mr. N. Takimoto	Mr. Mungai	"
	Mr. Akumu	"
Dr. Tsunoda	Mr. Kibe	Hydraulics & Hydrology
Mr. N. Arai	Mr. Mwangi Kario	Foundation Engineering
	Mr. Opolu	"
	Mr. Ndirangu	Concrete Technology
	Mr. Ngugi	"
	Mr. Muiruri	"
Mr. Y. Kato	Mr. Githaiga	Architecture
	Mr. Mungai	
Mr. Y. Furuki	Mr. Mwangi Gathumbi	Surveying
Mr. Watanabe	Mr. Mbego	Hydraulics (1983-1986)
Mr. Oya	Mr. Kibe	" (from Aug. 1985)
Mr. Murakami	Mr. Nyadawa	Hydraulics (Oct/Nov 1986)
	Mr. Muaka	
	Mr. Kibe	

6.4.2. RESEARCH

Mr. Arai carried a research on 'Properties of Sand in Kenya as Construction Material'.

6.4.3. PRODUCTION UNITS

The Department is carrying on with the following projects for students practical training:

1. 'D' type staff houses
2. Nursery school furniture
3. Water storage tank near concrete laboratory.

6.5. FUTURE PLANS

6.5.1. TECHNICAL EDUCATION UNDER THE 8-4-4 SYSTEM

As recommended by Technical Education Programme (TEP), the department is preparing to introduce Diploma Syllabuses when they are ready, both for Ordinary and Higher Diploma courses. It is proposed that for Higher Diploma, the course will be Higher Diploma in Civil Engineering Construction with the following options:-

1. Water Resources and Irrigation Engineering
2. Foundation Engineering
3. Environmental Engineering
4. Building Economics.

Later on, Higher Diploma in Architectural Engineering will be mounted when a sufficient number of local lecturers will be available.

6.6. CONCLUSION AND RECOMMENDATIONS

6.6.1. LOCAL TEACHERS STAFF

The performance of the Department can improve and be maintained if there are well qualified and experienced teachers. The Department has therefore requested Teachers Service Commission to recruit a number of qualified and experienced teachers to come and work in the department.

It is hoped that when these teachers join the College, they will be given an opportunity for further studies to increase their knowledge so that they can teach better.

6.6.2. TECHNICIANS

For laboratories to perform efficiently, there should be qualified and dedicated laboratory technicians. This can be achieved if the department and the College as a whole can foresee this objective. It is for this reason, the department is requesting that the best JKCAT Part III graduates be recruited, at least two per laboratory, then be given on-the-job training, and after showing their abilities and aptitude, send them for further training so that they can be upgraded to position of teachers. Few of these technicians who have been employed here have shown that given the chance, they can do very well.

6.6.3. JAPANESE EXPERTS AND VOLUNTEERS

The department will require expertise of Japanese staff in areas such as: Architecture, Reinforced Concrete Technology, foundation Engineering and Hydraulics, Hydraulic Machines as well as Hydrology. It is strongly suggested that for the Architecture course, two experts and two volunteers be despatched at any time until such time the College will have enough local teachers to run the course.

6.6.4. FACILITIES AND EQUIPMENTS

The department feels that for it to function more efficiently, the facilities requested in the MASTER PLAN be looked at seriously and then be implemented.

6.6.5. FUTURE STAFF PROJECTIONS

Future staff projections are as presented in the Master Plan, but will be subject to future amendment, as may become necessary.

6.6.6. CONCLUSION

The overall performance for Part III in 1985 and 1986 was very good and it is hoped that 1987 will be also good and therefore Part III courses would be consolidated by 1988.

7. DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

7.0. INTRODUCTION

The department presently has two courses - Electrical Installation Technician, and Radio, Television and Electronics Technician. The technicians produced in the department are of high calibre and self reliant and are capable to carry out any duties satisfactorily with little or no supervision at all. The duration for training is 3½ years.

7.1. STAFF LIST

The department lost four lecturers through either transfer to other institutions or resignation to join private industry, and in the same period managed to recruit one lecturer. The current staff list is shown as below:-

<u>NAME OF LECTURER</u>	<u>QUALIFICATION</u>	<u>GRADE</u>
1. F. L. M. Nalwa	BSc.(Power)	Principal Lect.HOD
2. E. W. Mwangi	HND (Telecommunications)	5/Lecturer-D/HOD Course tutor
3. S. Musyoki	MSc.(Telecommunications)	5/Lecturer/AG Registrar
4. D. Konditi	HND (Telecommunications)	Lecturer
5. P. K. Kamau	HND (Electronics)	Asst. Lecturer
6. J. M. Mwangi	HND (Power)	Lecturer/Course tutor
7. E. H. Mwaniki	HND (Electronics)	Lecturer
8. P. L. Oketch	HND (Power)	Lecturer
9. M. F. K. Kisingu	Part III (Power)	Asst. Lecturer
10. S. Nyaga	Part III(Telecommunications)	Lecturer
11. J. Konyango	HND (Power)	Asst. Lecturer
12. C. Wamalwa	HND (Electronics)	Asst. Lecturer
13. J. M. Kabiru	HND (Power)	Asst. Lecturer
14. C. G. Otieno	HND (Electronics)	Asst. Lecturer
15. P. H. Kihato	HND (Power)	Asst. Lecturer
16. J. C. M. Mwangi	HND (Electronics)	Asst. Lecturer Industrial Liaison Officer
17. F. Mungai	HND (Power)	Asst. Lecturer
18. G. Kabuchera	HND (Power)	Asst. Lecturer
19. E. N. Adungu	HND(Digital Electronics)	Asst. Lecturer

JAPANESE STAFF

1. The following are the Japanese staff in the department.

- | | | | |
|------------------|-----|-------------------------|---------------------------------|
| 1. Mr. T. Okubo | BSc | (Power) Expert | |
| 2. Mr. I. Suzuki | MSc | (Electronics) Expert | Returned to Japan in April 1987 |
| 3. Mr. Z. Inoue | BSc | (Power) Volunteer | |
| 4. Mr. R. Morita | BSc | (Electronics) Volunteer | |
| 5. Mr. Kamatani | BSc | (Electronics) Volunteer | Returned to Japan |

SUPPORTING STAFF

- | | | |
|-------------------|------------------------------------|-------------------|
| 1. J. N. Gachoki | Part III (Telecommunication) | Senior Technician |
| 2. F.K. Mbatia | O. Diploma (Power) | Technician |
| 3. A. M. Githaiga | Part III (Radio, TV & Electronics) | Technician |
| 4. S.W. Kamangu | Part III (Installation) | Technician |
| 5. G. Kibunja | Part III (Radio, TV & Electronics) | Technician |
| 6. M. Kini | Part II (Power) | Technician |
| 7. J.M. Mithi | Part III (Radio, TV & Electronics) | Asst. Technician |
| 8. J.M. Mwangi | Craft Pt. II Installation | Asst. Technician |

7.1.2. STAFF DEVELOPMENT: JICA SCHOLARSHIPS

The position regarding JICA training scholarships is as follows:-

List/Asst for 1984/85

Comments or Scholarship

1. Joshua Orwa Oseus

Trained

2. Kisingu Mathew Francisco

Trained

1985/86

1. Mr. Dominic B. Onyango Konditi

Trained

2. Mr. P.M. Ndunda

Resigned

3. Mr. G. Macharia Gathitu

Not yet

1986/87

1. F.N. Mungai

Awaiting

2. P.M. Kihato

"

1984/85

1. B. Macharia Gathitu

Not yet

1985/87

- | | |
|-----------------|----------|
| 1. E. K. Ndungu | Awaiting |
| 2. P.K. Kamau | Awaiting |

7.1.4. STAFF DEVELOPMENT: THIRD WORLD SCHOLARSHIPS

Third World programme has taken off the ground and the effect is yet to be felt. It is expected that more countries will offer Higher National Diploma holders opportunity to pursue MSc Programme. A Planned visit to prospective countries by a small team from College under JICA may go along way towards enhancing this training prospect.

1985/86

- | | |
|-----------------|---------|
| 1. F. N. Mungai | Not yet |
|-----------------|---------|

1986/87

- | | |
|---------------------|---------|
| 1. Mr. J. M. Muangi | Not yet |
|---------------------|---------|

7.2. ACADEMIC PROGRAMMES

7.2.1. OBJECTIVES

- (a) Train manpower competent to man supervisory, design and production functions in the relevant industry.
- (b) To produce self-reliant manpower for self-employment.
- (c) To lay basic foundation for further training.

7.2.2. COURSES

The department offers two courses at the moment. These are:-

- (a) Electrical Installations Technician Course
- (b) Radio, Television and Electronics Technicians Course.

7.2.3. STUDENTS ENROLMENT

The following table indicates present student enrolment in the department.

Year	1983	1984	1985	1986	1987
Electrical Installation	11	11	13	14	15
Radio, Television and Electronics	10	15	16	15	15

An additional class of 21 students have joined the department for two terms this year to do their part III in December, 1987. These were sponsored by the Kenya Power and Lighting Company.

7.2.4. PERFORMANCE IN EXAMINATIONS

Since the College started taking Kenya National Examination Council examinations, the department has done very well and has maintained high standards throughout. With sustained efforts at recruiting regularly and holding onto these lecturers already in the department, establishment will be met. This will improve the standards of performance at examinations and other department activities where added manpower is required.

7.3.5. STUDENTS EMPLOYMENT

The two groups of graduates that the department has produced, all of them have been employed in private firms, parastatals, and government ministries. The demand for their employment is high. The 1987 graduates have already been offered employment and are awaiting posting letters and even some have already started working.

The list of ex-students with their respective employers is provided in the Appendix to this report.

YEAR	PART I						PART II						PART III					
	D	C	F	R	F	T	D	C	F	R	F	T	D	C	F	R	F	T
1984																		
Installation	1	3	4	1	-	11	-	6	7	-	-	13	-	-	-	-	-	-
Course %	9.1	27.3	36.4	9.1	-	100	-	46.2	53.8	-	-	100	-	-	-	-	-	-
Overall % Pass	77.7%						100%											
Radio, TV																		
Electronic	-	6	4	-	-	12	-	1	2	1	2	11	-	-	-	-	-	-
Course %	-	66.7	33.3	-	-	100	-	9.1	72.7	9.1	9.1	100	-	-	-	-	-	-
Overall % Pass	100						81.82											
1985																		
Installation	-	5	7	1	2	15	-	4	7	1	-	12	1	9	2	1	15	
Course %	-	33.33	46.67	6.67	13.33	100	-	33.3	56.3	6.3	-	100	7.7	69.2	15.4	7.7	100	
Overall % Pass	80						91.7						92.3					
Radio, TV																		
Electronic	2	2	4	1	-	15	-	4	11	-	-	15	-	6	2	-	8	
Course %	13.33	53.33	26.67	-	100	-	-	26.7	73.3	-	-	100	-	75	25	-	100	
Overall % Pass	93.33						100						100					
1986																		
Installation	4	7	2	2	1	16	-	2	6	1	1	10	1	5	2	1	9	
Course %	25	43.75	12.5	12.5	6.25	100	-	20	60	10	10	100	11.1	55.6	22.2	11.1	100	
Overall % Pass	81.25						90						85.9					
Radio, TV																		
Electronic	3	13	-	-	-	16	-	6	4	1	1	12	1	1	1	1	16	
Course %	18.75	81.25	-	-	-	100	-	50	33.3	6.3	6.3	100	8.25	50	39.5	-	6.25	100
Overall % Pass	100						83.3						93.75					

Key:

D = Distinction Pass

C = Credit Pass

F = Pass

R = Referred

F = Fail

T = Total

7.3. TRANSFER OF TECHNOLOGY

7.3.1. RESEARCH

The department is currently undertaking one research entitled "Research in Solar Energy Application for Small Scale Irrigation". The researchers are Mr. I. Okubo, Mr. S. Musyoki, Mr. N. Morita, Mr. J. Nozaka, Mr. Z. Inoue, Mr. J.M. Mwangi and Mr. J.O. Konyango.

7.3.2. PRODUCTION UNITS

The main hindrance to starting production units is lack of facility and equipment. The proposed visit by a College team to selected Asian Countries will obtain some insight into running production units. It is hoped that when the team returns, it will make proposals on how to initiate and sustain production units.

7.4. FACILITIES AND EQUIPMENT

7.4.1. FACILITIES

When the department became fully operational, it was found that some facilities were inadequate. This had led to some laboratories not developed fully, due to congestion as they are used both as classrooms and laboratories.

7.4.2. EQUIPMENT

Supply of equipment under the extended period is satisfactory, though some equipment could not be obtained due to budget restraint. Therefore, the department appreciates for the good work JICA had done by equipping the department.

7.5. FUTURE PLANS

The department is looking forward in future to start Ordinary Diploma courses as recommended by the Government under the 8-4-4 programme. Also, it has to start Higher Diploma courses.

These proposals can materialise only if there will be a massive facilities construction and staff development as indicated in the Master Plan. The staff development programme now is inadequate, and an attempt must be made to improve upon it to meet the targets set in the Master Plan.

7.6. RECOMMENDATIONS

- (i) Staff development programme should be pursued vigorously and each department to be allocated its share if possible every year. This makes planning easier.**
- (ii) The Kenya Government to request the Japanese Government to extend the co-operations so as to be able to realise whatever proposals are in the Master Plan.**

8. DEPARTMENT OF MECHANICAL ENGINEERING

8.1. INTRODUCTION:

The Department is part of the faculty of engineering and comprises of sections/courses i.e. (1) Automobile Engineering
(2) Construction Plant Engineering
and (3) Agricultural Machineries

The three sections which are headed by competent Course Tutors are run on technician basis where the finalists do achieve a Technician Part III Certificate. A breakdown of the courses offered currently is provided in this report.

8.2. STAFFING

8.2.1. PRESENT SITUATION

The department has both local and overseas lecturing staff. According to the staff development agreement as detailed in the R/O report, some members of the local staff have received training overseas and either completed or are currently on training in various countries.

Similarly, some members of the E.F.G. Staff have been trained locally and future prospects are that more will receive training. The following is a breakdown of staff and their positions:-

<u>NAME</u>	<u>DESIGNATION</u>	<u>QUALIFICATIONS/SUBJECT AREA</u>
N. Boro	P/Lecturer - Dean	HND, Mechanical Production
J.N. Ng'ang'a	P/Lecturer	FTC, " "
S.M. Maina	S/Lect. - Dep. HOD	HND, Automotive Engineering
S. Mugo	S/Lecturer	FTC, Construction Plant
J.M. Gachaki	Lecturer	FTC, Drawing/Production
G.N. Ihoigu	"	FTC, Welding/Fabrication
M.T. Oduori	"	B.Sc., Agriculture Machinery
A. Odawa	"	FTC, " "
A. Njoroge	"	FTC, Construction Plant
G. Wanjau	"	HND, Science/Plant
D. Mukundi	"	FTC, Construction Plant
J.G. Kigla	"	FTC, Automotive Engineering
H.W. Mwai	"	HND, Science Production
I. Inoti	"	M.Sc., Agricultural Engineering
P. Klarie	Asst. Lecturer	FTC, Automotive Engineering
I. Wainaina	"	HND, Automotive Engineering
S. Wanjii	"	HND, Science Production
G.G. Wanyoike	"	HND, Science Production
Nyaga Kivuti	"	FTC, Drawing/Production
T.K. Magira	"	HND, Engineering Science/Production
G. Mwangi	"	" " "
J.M. Kabira	"	D. Dip., Welding/Production
G.G. Kung'u	Technical Teacher	D. Dip., Welding/Production
S. Kamau	Asst. Lecturer	FTC, Science/Production
Y. Onta	Expert	Agricultural Machinery
K. Hasegawa	Expert	Construction Plant
T. Inoue	Volunteer	Agric. Machinery
S. Hiraide	"	Production Engineering
I. Hamasaki	"	Automotive Engineering
H. Mwangi	Sen. Technician	Mechanical Engineering
O.N. Macharia	Technician	Agric. Machinery
A.O. Mogoi	"	Motor Vehicle
S.N. Mbugua	"	Construction Plant
J.O. Owino	"	Welding/Fabrication
S. Maina	"	Motor Vehicle
S.W. Ngotho	"	Welding/Fabrication
J. Sisa	"	Machine Technology

DEPARTURES TO WORK ELSEWHERE OR BACK TO JAPAN

1. Mr. Juma	Resigned	8/85
2. Mr. Yamamoto	Back to Japan	8/86
3. Mr. Morita	Back to Japan	4/87

8.2.2. STAFF DEVELOPMENT

(a) ALREADY TRAINED

<u>NAME</u>	<u>PLACE OF STUDY</u>	<u>SPECIALISATION</u>
1. Mr. Kigia J.G.	Japan (JICA)	Automotive Eng.
2. Mr. Kabira J.M.	Japan (JICA)	Welding/Fabrication
3. Mr. J.M. Gachaki	Japan (JICA)	Manufacturing Tech.
4. Mr. Wanjau G.	Japan (JICA)	Materials Tech.

ON TRAINING

<u>NAME</u>	<u>PLACE OF TRAINING</u>	<u>SPECIALISATION</u>
1. M.F. Oduori	Thailand (MSc. JICA)	Mech. Engineering
2. Inoti I	Japan (Ph.D.MOMBUSHO)	Agri. Engineering
3. Mukundi D.	Japan (JICA)	Const. Plant
4. Kiarie P.	Japan (JICA)	Automotive

(c) TRAINED UNDER B.O.G. STAFF DEVELOPMENT SCHEME

J.O. Owino	MSA Polytechnic	Welding/Fabl. PART III
S.N. Mbugua	J.K.C.A.T.	Const. Plant PART III

8.3. ACADEMIC PROGRAMME

8.3.1. Courses/Enrolment

Currently the existing courses are based on the Technician series but will convert to Diploma at appropriate times. The following groups of students are currently in attendance.

<u>YEAR/GROUP</u>	<u>COURSE</u>	<u>NUMBER</u>	<u>EXPECT COMPLETION</u>
1983	MVT, CPT, AMT	30	1987
1984	MVT, CPT, AMT	36	1988
1985	MVT, CPT, AMT	32	1989
1986	MVT, CPT, AMT	40	1990
1987	MVT, CPT, AMT	40	1991

8.3.2. 1987 EXTERNAL EXAMINATIONS

In July the groups in attendance will be sitting for their exams as follows:-

- 1983 group - Final examination to Part III Technician June/July 1987
- 1984 group - Technician part II, June/July 1987

8.3.3. ANALYSIS OF PAST EXAMINATION RESULTS:

Below is a table showing the performance of the courses in external examination presented by the Kenya National Examination Council.

COURSE GROUP		NO. PRESENT	EXAM LEVEL	PASSED	%	REFERRED		FAILED	
YEAR	INTAKE						%		%
	1984								
	AMT	12	Part I	5	42	6	50	1	8
	OPT	12	"	8	67	4	33	0	0
	MVT	14	"	7	50	5	36	2	14
	1981								
	AMT	Nil	Part III	Nil	Nil	Nil	Nil	Nil	Nil
	OPT	3	"	3	100	0	0	0	0
	MVT	7	"	7	100	0	0	0	0
	1982								
	AMT	10	Part II	9	90	1	10	0	0
	OPT	-	-	-	-	-	-	-	-
	MVT	14	"	11	78	2	14	1	8
	AMT	9	Part II	8	89	1	11	0	0
	MVT	12	"	4	33	5	42	3	25
	OPT	9	"	7	78	2	22	0	0
	1982								
	AMT	0.6	Part III	12	75	3	19	1	6
	OPT	13	"	13	100	0	0	0	0
	MVT	15	"	13	87	2	13	0	0
	1985								
	AMT	11	Part I	10	91	1	9	0	0
	OPT	14	"	9	64	5	36	0	0
	MVT	15	"	13	87	2	13	0	0

8.3.4. PHASING OUT OF AGRICULTURE MACHINERY COURSE

According to the recommendation of the Academic Board, Agricultural Machinery Course will gradually be phased out from Mechanical Engineering Department. The process will commence in 1988 as there will be no intake during that year. However, the existing students will continue in Mechanical Engineering to complete the balance of the course.

As the Technician Courses convert to Diploma it was found not feasible to conduct a Diploma course in Agriculture Machinery. Therefore, Agriculture Machinery will cease to exist in 1991.

The department would like to recommend that the same course be replaced with a diploma course in Mechanical Engineering preferably with the first intake coming in 1988. This would be a general course taking the option of production. If such a move is acceptable, the department would embark on preparations and planning for the new group.

At a glance, no expansion of physical facilities would be imposed by the new course; no pressure of numbers would be created as we could start by recruiting 12 students just as we have done for Agriculture Machinery. Current laboratories and workshops would cater for the new course with additions necessary as per the establishment. Demand for the course is high as shown by large numbers of applications from sponsors to those colleges running the course.

For the same course a syllabus exists and therefore there would be no lag in embarking on the new course. The department would recommend that the appropriate disbursement of assets pertaining to Agriculture Machinery be carried out after July 1991.

Some lecturers will be required to transfer to Agricultural Engineering but others may remain in Mechanical Engineering to cater for the courses left behind.

8.4. TRANSFER OF TECHNOLOGY

8.4.1. General

Co-operation between Kenyan Lecturers and Japanese Experts and Volunteers has enable transfer of technology to take place easily. Through joint teaching, joint projects, joint laboratory work, demonstrations and formal and informal discussions or other incidental encounters at the college activities have played a big role in enabling transfer to take place.

Holding of workshops and seminars have also played a positive role in such technology transfer. Continued counterpart activities will enhance possibility of rapid transfer.

8.4.2. RESEARCH

The department has taken up some projects with research content as follows:-

1. Renewable and economical methods of producing energy, Mr. Maina.
2. Manual operated low head water pump, Messrs. Maina and Ng'ang'a.
3. Solar power, Mr. Maina.
4. Wind power turbine, Messrs. Maina, Wainaina, Kabira and Thoigu.

Some of the above projects are in early stages with completion geared to the middle of 1988.

Some students projects completed in the department include:-

1. Hammer mill, Dr. Ohta and Mr. Odawa.
2. Block maker (Concrete), Mr. Arshford.
3. Hoisting cranes - light and heavy duty, Mr. Arshford.

8.5. EQUIPMENT RECEIVED

The department has received some of the equipments ordered in the

Calendar years 84, 85 and 86. Some of the equipments were locally bought and others bought overseas under Japanese Government grant. The department requires additional equipment to cater for the rapid growth in educational environment in this country, especially having in mind that we may shift from Technician to Diploma courses and possibly to degree courses in future.

OTHER ACADEMIC DEPARTMENTS

9. DEPARTMENT OF MATHEMATICS AND
SCIENCE
10. DEPARTMENT OF GENERAL
STUDIES
11. THE COLLEGE LIBRARY

9. DEPARTMENT OF MATHEMATICS AND SCIENCE

9.1. INTRODUCTION

The department was established in February, 1987 in order to enhance efficient use of resources and co-ordinate the teaching of mathematics and science subjects. Currently the department teaches mathematics, chemistry and physics.

The department aims at improving the performance in the above subjects by J.K.C.A.T students in the national examinations. Students are expected to use their knowledge of mathematics and basic sciences in the analysis of problems which they encounter in their courses of study.

9.2. STAFFING

9.2.1. Staff List

<u>Name</u>	<u>Designation</u>	<u>Qualification</u>
Mr. G. M. Gathitu	Senior Lecturer	B.Ed.(Sc)Hons.(Maths & Chem)
Miss J.W. Mungai	Asst. Lecturer	B.Ed.(Sc)(Maths/Chem)
Mr. R.G. Karue	Lecturer	B.Ed.(Sc)(Maths/Geo)
Mrs. E. Omulokuoli	Asst. Lecturer	B.Ed.(Sc)(Maths/Chem)
Mr. J.H. Ndeda	Graduate teacher	B.Sc., MSc.(Physics)
Mr. S.J. Okwach	Lecturer	B.Ed.(Sc)(Maths/Physics)

9.2.2. STAFF DEVELOPMENT

Mr. S. J. Okwach is the only member of the department who has benefited from JICA training programme.

9.3. FUTURE PLANS

The department would like to centralise the teaching of mathematics, chemistry and physics as far as possible in order to make the work of co-ordinating the teaching of these subjects easy.

The department plans to have three sections. The three sections will be a mathematics section, a chemistry section and a physics section. When the department acquires sufficient facilities, other subjects such as electricity, mechanics and biology may be included in the department. As the college continues to expand the department may eventually become a full faculty of science.

9.4. CONCLUSION AND RECOMMENDATIONS

9.4.1. STAFF

The department requires more teachers. The Present number of six members of teaching staff should be doubled in order to avoid combining classes.

9.4.2. FACILITIES

- (a) Physics Laboratory should be constructed as requested in the College Master Plan.
- (b) Chemistry Laboratory should be constructed as requested in the College Master Plan.
- (c) Offices should be constructed as requested in the College Master Plan.
- (d) The department recommends that at least one of each of the following three types of computers should be made available to the department as teaching facilities.
 - (i) NEC 9801
 - (ii) APPLE II
 - (iii) OK1 IF 800, Model 30

9.5. STAFF TRAINING

- 9.5.1. The department recommends that members of teaching staff who are below 35 years of age should be given MONBUSHO Scholarships.
- 9.5.2. Arrangements should be made so that lecturers can be sponsored by JICA to study at Kenyatta University at Master Degree level. Most of the lecturers in this department graduated from Kenyatta University. Therefore, arrangements would possibly be easy to make.

10. DEPARTMENT OF GENERAL STUDIES

10.1. INTRODUCTION

The rationale for setting up this department can be summed up as follows: JKCAT graduates acquire in the course of their studies a lot of knowledge and new ideas which they put to use at their places of employment. Whatever job, they will be required to communicate with others: to fit and work with society and to take advantage of the government infrastructure that exists. In other words, General Studies Department views the graduates as agents of social change whose effectiveness depends on the ability to exploit the mass media for their purpose; the knowledge of how their government and societies are structured and operate and finally, their liberal broad outlook towards other people and issues. The subjects offered in the department reflect this view.

10.2. STAFFING

10.2.1. Staff List

<u>Name</u>	<u>Qualifications</u>	<u>Designation</u>	<u>Remarks</u>
Miss B. Nduati	B.A.(NRB) M.A.	Principal Lect.	Head Dept.
Mr. J. Kaudu	B.Phil	Lecturer	D/Head Dept.
Mrs. R. Eshiwani	B.A.(HONS) Post Grad.Dip. in Education	Senior Lect.	
Mrs. R. N. Maina	B.Ed.	Lecturer	

10.2.2. Staff Development

At present the teaching staff is predominantly in the language/communication areas. They have not benefited from staff development programmes during the extension period.

10.3. ACADEMIC PROGRAMMES

10.3.1. Subjects Currently Taught

Communication I (Theory/Language)

Communication II (Mass Media and Technology)

Technical Report Writing

Government Procedure

Environmental Studies

Rural Sociology

The first four subjects have been on offer continuously since the inception of the department. Rural Sociology has been on and off depending on the availability of staff, and Environmental Studies is a new subject offered for the first time during the May - August, 1987 Term.

10.3.2. Students' Enrolment

The Department teaches all the enrolled students of the College.

10.3.3. Performance in Examination

Until now the subjects taught have not been examinable at national level. The importance of this Department has been recognised nationally in that all Colleges taking General Studies will have their students examined shortly. The Electrical/Electronics Department has already acquired a new syllabus to this end. This will be examinable at Part One and Part Two, starting next year.

The performance in the exams we set internally has been adequate.

10.4. RECOMMENDATION

10.4.1. Staff

Staff training scholarship should be made available for study either locally or anywhere else.

10.4.2. Equipment

- (a) The Audio/Visual room to be equipped to enable micro-teaching and demonstrations to be carried out.
- (b) One Language Laboratory to be provided for the teaching of communication skills e.g. phonetics, intonations etc.

11. THE COLLEGE LIBRARY

11.1. INTRODUCTION

The library is a full academic department with a central role to play in the College's pursuit and achievement of its academic and social goals. Its primary role is to anticipate and satisfy the study, teaching, research and information needs of the College community. It also provides for general and recreation needs of the community.

11.2. STAFF

11.2.1. Staffing Position

<u>Designation</u>	<u>Name</u>	<u>Qualifications</u>
Principal Lecturer/Librarian	R.M. Kamonde	B.A.(Hons) P.G. Dip.Lib.
Lecturer/Assistant Librarian	Vacant	
Senior Library Assistant	G.K. Mungai	Lib. Asst. Cert.
	L.B. Ogutu(Miss)	Lib. Asst. Cert.
	A.M. Obonyo	Lib. Asst. Cert.
	M. Mutungi (Miss)	Lib. Asst. Cert.
Library Assistant	R.M. Njogu	Lib. Asst. Cert.
	M.N. Muri (Miss)	"
	C.N. Nganga(Miss)	"
	S.K. Mwangi	"
	M.M. Kitonyi	"
	R.W. Wachira	"
	E.N. Mwangi	"
Printing Technician	J.K. Mouthia	Printing Cert. (CGLI)
Other Staff		
Shorthand typist	1	
Library Attendants	4	
Reprographic Attendants	3	
Messenger	1	
Cleaner	1	
Library Assistant Trainee	1	

11.2.2. Staff Development

(a) BOD Training

The Board of Governors has been able to train Library Staff for Library Assistant Certificate Course at Kenya Polytechnic as follows:-

1983/84	2	1984/85	1
1985/86	1	1987/88	1
Printing Finishing and Book Binding		1987/88	2

(b) JICA Training

In August, 1987, the Librarian will start a Postgraduate Librarianship Course in a Japanese University.

11.3 ACADEMIC PROGRAMMES

11.3.1. Services

To ensure good and efficient services as well as better utilization of staff, the Library has continued to be innovative in organising the system of operation of the Library. The Library offers the following services:

(a) Readers' Services

Issue Desk: All ordinary book loans to students and staff; reservation of books; registration of library users.

Reserve Collection: All short loan materials (books in greatest demand); examination collection (papers, syllabii & regulations); inter-library loan services.

Periodicals Section: Acquisition and organisation of all periodicals; current awareness; selective dissemination of information (by actual need); newspapers and periodicals indexing; guidance for researchers (periodicals literature).

Reference and User Education: Reference and enquiry services; development of Audio-visual services; promotion of the exploitation of library materials; gift and exchange of documents; guidance for researchers (reference and special literature); all special and miscellaneous literature; organising lectures on library and information services for both students and staff.

(b) Technical Services

Processing of Books: Cataloguing and classification of all new books; book repairs; the library catalogue and accessions lists.

Acquisition of Books: Book selection through College departments; acquisition of books; liaison with donors and suppliers.

Inventory and Records Control: Maintaining and up-dating of the inventory; commitment register and local orders follow up; summary of all library operational records; caretaking of building and assets.

Reprographic Unit: Photocopying; stencil scanning and duplicating; simple binding and document production; printing; black and white photo production.

11.3.2. Hours of Service

Term Days	Monday - Friday	08.00 a.m. - 10.00 p.m.
	Saturday	09.00 a.m. - 04.00 p.m.
Holidays	Monday - Friday	08.00 a.m. - 01.00 p.m. 02.00 - 05.00 p.m.

11.4 EQUIPMENT

The Library has continued to receive equipment through JICA. Most of the equipment received is in good working order and is of great assistance to the department. However, although the following items of equipment have been received, they have not been utilized for the reasons indicated:

<u>Item</u>	<u>Remarks</u>
1. Wire Stitching Machine (Quat 7)	The Japanese Repair Mission (1986) which looked at the machine did not rectify the fault. (Important part missing)
2. Collater (Uchida S-8)	Has never been commissioned.
3. Card Printer (Minolta)	Repaired but broke down soon after. The item supplied was not as per specifications.
4. Auto Printer (Ricoh, 1310)	Machine not utilized because paper feeder is faulty.

5. Cutting Machine(Uchida H-46) Not fully utilized for lack of spare blades
6. Cutting Machine(Uchida paper cutter) No spare blades

11.5. BOOKS

The current stock in the library stands at 13,400 volumes. A further 1,000 volumes are on order bringing the total to 14,400 volumes. Between April, 1985 and June 1987, books have been acquired through the following sources:

Source	No. of Volumes	Approx. Cost
JICA	2261	£.21,500.00
British Council	377	£. 5,733.00
Netherlands	52	£. 780.00
Kenya Government (College Funds)	1875	£.13,810.00
Others	43	£. 645.00
	4608	£.42,468.00

The growth in the book stock has been satisfactory and we are grateful to JICA, the Kenya Government and other Donors for their generous support. The College budget for all the expenditure is £.20,000.00. It would be appreciated if a special provision for the purchase of books is given.

Target stock for 1986 is 19,000 volumes. Thereafter, we foresee a rapid increase in the stock to take care of new or higher courses as well as to cater for increased research activities in the College.

11.6. PERIODICALS

The level of acquisitions has remained steady and the current position is as follows:

SOURCE	CURRENT			PROPOSED 1987/88		
	Current No. of titles	Approx. Cost per title	Total Cost KShs.	Projected No. of titles	Cost per title	Total Cost KShs.
Overseas subscription	75	959.00	71,925.00	150	1,065.00	159,750.00
Local Subscription	15	470.00	7,050.00	25	600.00	15,150.00
TOTAL	90		79,000.00	175		174,900.00

Utilization is vigorous and there is need to acquire more copies of some technical and general periodicals.

11.7. FUTURE PLANS

11.7.1. Staff

Staff are a crucial component in any provision of a comprehensive library service. Consequently, we need to continually recruit and retain qualified and competent staff. In order to improve efficiency as well as the professional prospects of the staff, efforts must continue to be made to train them for higher courses. It would be desirable to train library staff to Master's Degree, Bachelor's Degree and Diploma levels as appropriate.

11.7.2. Space

Whereas the current library space of 1250m² seems adequate, it is unlikely that this situation will continue. As the book and periodical stock increases, and as more staff and students discover the value of working in the library, space will need to be increased.

As has been shown in the Master Plan, we are requesting that a new library building be constructed to cater for the increasing stock and user population. A new building of 3367m² would suffice.

11.7.3. Books and Periodicals

It is hoped that the stock will continue to grow at the rate of 3,500 volumes per year. More technical and general periodicals will be acquired to cater for the needs of the users. A target stock for 1988 is 19,000 volumes.

11.8. CONCLUSION AND RECOMMENDATIONS

11.8.1. Library Resource (Books and Periodicals)

Acquisition of books and periodicals should continue vigorously. The Kenya Government and JICA should continue (and increase) their commitment and support so that more books and periodicals may be acquired.

11.8.2. Library Services

These will be enhanced by continuous appraisal and the institutionalizing of staff.

11.8.3. Library Staff

Staff training should continue locally. Training opportunities outside Kenya to be sought for the certificate level staff. There is need to recruit staff with degree and Post-graduate qualifications gradually as the College prepares to begin offering Higher Courses.

11.8.4. Space, Furniture and Equipment

The current building should be improved qualitatively with security measures as well as organizational needs in mind. The acquisition of equipment, primarily through JICA sources should continue. However, it is important to ensure that the equipment that comes is easily serviceable locally. The building up of a complete in-house printing system should continue.

12. ESTATES DEPARTMENT

12.1. INTRODUCTION

This department is responsible for carrying out repairs, maintenance and improvement of College buildings and equipment. It is also responsible for all the landscaping works and general cleanliness of the grounds and implementation of minor development projects.

12.2 STAFFING

12.2.1. CURRENT STAFFING POSITION

Senior Inspector Mechanical	-	1
Artisans technician	-	9
Foreman	-	3
Head Cleaners	-	6
Boiler Attendants	-	4
Cleaners	-	35
Groundstaff	-	<u>32</u>
TOTAL	-	<u>90</u>

There are seven vacant posts as follows:

Estates Officer	-	1
Senior Building Inspector	-	1
Artisans	-	3
Foreman	-	1
Electrical Technician	-	<u>1</u>
TOTAL		<u>7</u>

12.2.2 STAFF DEVELOPMENT

Two members of staff completed training in Industrial Training Centres under BOE sponsorship, and besides attending the boilers, they are also capable of diagnosing problems related to pumps and other equipments. As some of the equipment brought to the College is of some special kind, there is need to offer training to our technicians in Japan.

NON-ACADEMIC DEPARTMENTS

12. ESTATES DEPARTMENT.

13. WELFARE DEPARTMENT.

12.3 WATER SUPPLY

The present boreholes do not provide enough water for the College community and there is need to have an alternative supply. One of the alternatives would be to provide a water treatment plant so that the river water used for irrigation could be used for drinking. Money has already been allocated for this and the Ministry of Water Development is already handling the problem.

12.4. SEWERAGE

The present draining system serves its purpose but it is always inconveniencing the College community whenever there is a breakdown of the pumps. There is need for the College to acquire spare pumps which could be used in case of a breakdown. Regular maintenance is also necessary for the system.

12.5. ELECTRICAL EQUIPMENT

Most electrical equipment was designed to use a different kind of grid and as such transformers are always used so as to step-down the voltage from 415V to 100V, and yet the spares are usually difficult to get locally.

12.6. LANDSCAPING

Planting of trees, shrubs, and flowers has continued every year during the long rains.

12.7. MAINTENANCE

As years go by, the repairs and improvement are also increasing and hence the cost of maintenance is also going up. There is therefore an urgent need to have the necessary technicians who are still required to fill the vacant posts.

12.8. CONCLUSION AND RECOMMENDATIONS

12.8.1. A more permanent solution should be found for the water problem.

12.8.2. JICA should provide some assistance in the training of Technicians for future maintenance work in the College.

13. WELFARE DEPARTMENT

13.1. INTRODUCTION

Student Welfare Services are extremely important in a residential institution, and JKDAT is no exception. This section of the Review Report covers four key areas of student welfare, namely: Guidance & Counselling; Halls and Catering; Games and Societies; and Health Services.

In general, the welfare services are provided by the following offices/sections:

- (a) The Office of the Dean of Students co-ordinates all welfare activities and undertakes student counselling.
- (b) Halls and Catering Section is responsible for hostel accommodation, kitchen and dining halls, and laundry services.
- (c) The College Dispensary is responsible for all health matters.
- (d) Games and Sports Officer is responsible for organization of all games and sporting activities undertaken by the students.

13.2. STAFFING

13.2.1. DEAN OF STUDENTS OFFICE

G.J. Nduati Ag. Dean of Students

13.2.2. HALLS & CATERING DEPARTMENT

1. Miss M.W. Gathiga	Halls & Catering Manager
2. Mrs. C. Ngige	Cateress/House Keeper
3. Mrs. I.N. Muthama	Cateress
4. Miss M.W. Karago	"
5. Miss J. Njinju	"
6. Miss O.W. Njenga	Housekeeper
7. Mrs. P. Mwangi	"
8. Miss L. Kagumba	"
9. Miss J.W. Thuo	"

Other staff include:

Head Cook	1
Assistant Head Cooks	2
Cooks	11
Kitchen Assistants	18
Storeman	1
Hostel Cleaners	<u>8</u>
Total	<u>50</u>

13.2.3. GAMES & SPORTS: The post of Games Tutor is vacant.

13.2.4. DISPENSARY

Mr. Charles M. Mbugua	Registered Clinical Officer
Miss Veronica W. Ndegwa	Registered Nurse/Midwife
Miss Eunice Wasilwa	Enrolled Community Nurse
Miss Rebecca Kailemia	" " "

13.3. FACILITIES AND EQUIPMENTS

13.3.1. HALLS & CATERING

The kitchen remained the same since the opening of the College, even though the student population has been growing. There is therefore, need to expand the kitchen and the Dining Hall in order to ease-up the congestion problem being experienced currently.

There is also an acute problem of spare parts for most of the equipments in the kitchen and an urgent solution is required. The kitchen could also do with a Japanese Expert to train the Kenyan staff on maintenance and repairs of the equipments.

During the period under review, the following equipments have been bought:-

- (i) Food Mixer
- (ii) Potato Peeler

The following equipments were requested for but have not been bought:-

- (i) Large Electric Oven
- (ii) High Gas burners
- (iii) Large Sterilizer Tank

13.3.2. DINING HALL

The furniture in the Dining Hall is inadequate for the large student numbers the Dining Hall has to cater for. The glass doors are expensive to clean and to maintain due to breakage.

13.3.3. STORAGE SPACE

Most of the College provisions have to be bought from Nairobi, and therefore there is need for adequate storage space. The ventilation in the current storage space is inadequate and improvement are, therefore, necessary in order to avoid wastage of fruits and vegetables.

13.3.4. LAUNDRY

The growing student population means more washing load for the laundry. The existing washing machine cannot cope with the washing and therefore there is urgent need for additional machines.

13.3.5. HOSTELS

The fifth hostel is under construction and it might be ready for occupation by September this year. This will go a long way toward solving the current accommodation problems.

There is need to install water storage tanks to alleviate the water problems in the Hostels when the general water level is low.

13.3.6. COLLEGE DISPENSARY

The College Dispensary provides health service to the students and the members of staff and their families. The population catered for is about 1,500 people.

13.3.7. CANTEEN/Common Room

The current common room also houses the student canteen, and also serves as the television room. It has a seating capacity of 60 people which is far too small compared with the student population. A bigger common room for TV, indoor games and general relaxation is therefore needed.

13.3.8. GYMNASIUM: This is necessary for none is available currently.

13.3.9. SWIMMING POOL: It is ideal for a student community.

13.3.10. PLAYING FIELDS

The current playing fields require a lot of modification for them to serve the purpose intended. The following should be provided:-

1. A well drained soccer field which can also serve as a running track on the sides
2. A rugby pitch
3. Two well drained hockey pitches
4. A netball court
5. Volleyball courts
6. Lawn Tennis courts
7. Basketball courts

8. Long jump and high jump pits

9. Polevolt jump pit

10. Steeple chase track.

13.4. CONCLUSIONS AND RECOMMENDATIONS

13.4.1. The completion of the fifth hostel will be an added advantage to the College.

13.4.2. The kitchen facilities require urgent attention so as to ground that important facility.

13.4.3. Student recreational facilities are far from being adequate for the current student population.

S U M M A R Y

14 SUMMARY

In this section is presented a brief Summary of the College's evaluation of the extended period with special reference to various issues. The Summary should be read in conjunction with the departmental reports contained in the earlier sections of this report.

14.1. OVERALL IMPLEMENTATION

1. The implementation of the extended project was continued along the same lines as for the initial project, and has been highly successful in most respects.
2. There was excellent co-operation between JICA and the College, as well as Japanese Experts and Kenyan Staff.
3. Effective consultation was achieved through the visits by Japanese Consultation Team (September, 1985), the Japanese Advisory Team (August, 1986), the JICA Study Mission (November, 1986), and through regular meetings of the Project Internal Steering Committee.

14.2 EXPERTS AND VOLUNTEERS

1. These were dispatched according to the College's request.
2. They did an excellent job in the respective departments.
3. They learnt a great deal about the College and the Country, and made lasting friendships with Kenyans.

14.3. EQUIPMENT AND MATERIALS

1. Departmental requests for equipment and materials have been handled expeditiously by JICA, and most items were received in good time.
2. The problem of spares for some equipment has not been solved. There is need to discuss and agree on a long term solution to this problem.

14.4 STAFF DEVELOPMENT

1. Much progress was made in the placement of Kenyan Staff in appropriate institutions and industries for advanced training.
2. In addition to JICA and MOMBUSHO Scholarships, Third Country Training scholarships were introduced by JICA.
3. The latest position is as follows:

(a) MOMBUSHO:	8 (2 to be taken October, 1987)
(b) JICA C/P:	29 (6 to go in 1987, 2 not yet nominated)
(c) JICA Group:	2
(d) JICA Third Country:	2
(e) JICA Short Term:	<u>2</u>
TOTAL	<u>37</u>
4. MOMBUSHO Scholarships have proved inadequate in meeting our demands for staff development, in view of the planned vertical growth of the College.

5. In addition to an increase in the MOMBOSHU scholarship allocations, JICA should consider local Kenyan Universities as centres for third Country training.

14.5. RECRUITMENT OF STAFF

1. Recruitment of qualified Kenyan Staff has progressed well during the extension period.
2. The situation in Agricultural Engineering as well as that of Building and Civil Engineering has improved.
3. 11 JKCAT graduates have been recruited as Technicians, and if found suitable would be sponsored for further training for future teaching positions.
4. Most JICA Experts and Volunteers have Kenyan Counterparts.

14.6. TECHNOLOGY TRANSFER

Transfer has been achieved mainly through joint/group research, team teaching, development of teaching materials, and sharing of ideas in professional meetings, and production units.

14.7. RESEARCH

1. This has been fully institutionalized as an integral part of the College's academic programmes.
2. Research Policy, Procedures, Rules and Regulations have been published and are available in the College Library.
3. Emphasis has been on group/team projects, although some individual projects have been approved and implemented.
4. Two successful research workshops have been implemented to improve staff knowledge, skills and attitudes, especially with regard to research methodology.
5. Several research seminars have been held within the departments and for all College Staff.
6. JICA has continued to support research activities through funding of specific projects.
7. Contacts have been created through joint seminars and exchange visits with other research institutions.

14.8. UTILIZATION OF FACILITIES

1. Steps have been taken to increase the efficiency and effectiveness of utilization of College facilities, e.g. classrooms, laboratories, workshops, equipment and staff.
2. Mathematics and Science Department has been created and all the teachers of these subjects now operate under one department.

3. A decision has been made to discontinue the Agriculture Machinery Technicians Course (available currently in Faculty of Engineering) by 1988, so that the present staff and equipment are transferred to the Department of Agricultural Engineering. Agriculture Machinery specialization could be introduced as an option in the HND Course in Agricultural Engineering.

14.9. DEMONSTRATION (TUITION) FARM

1. Some progress has been made in the effective utilization of the Demonstration Farm.
2. Further development is being undertaken in the livestock and crops sections. Fruit Orchards and pasture plots are being established.
3. The College is in the process of recruiting a Farm Manager within the ISC establishment.
4. The problem of the leakage in the IRRIGATION DAM has not been solved to date. This has slowed down the planned development of the farm. The retention period has been extended to April, 1988, to give the Consultant and Contractor adequate time to find an appropriate solution. It is hoped that before this period expires, something positive will have been done to rectify the situation.

14.10 CONSTRUCTION OF THE FIFTH HOSTEL AND STAFF HOUSES

1. Construction of the Fifth Hostel is at an advanced stage, and the project should be completed and handed over to the College before the end of this calendar year.
2. Two staff houses are under construction as student projects, supervised by the department of Building and Civil Engineering.
3. Funds totalling KShs.15,000,000 have been made available to the College by the Treasury, under Japanese Commodity Aid to Kenya, and the Board of Governors has approved the use of such money for the construction of staff houses, and other facilities considered as high priority. The College will ensure that work on these projects is started as soon as practicable.

14.11 FUTURE OF THE COLLEGE

1. The College has prepared a Master Plan whose major aim has been clearly spelt out as:
"... to increase the teaching facilities and up-grade the quality of staff in order to facilitate horizontal and vertical growth, so that the institution may offer Higher National Diploma Courses, and eventually Bachelor of Technology Courses, as well as undertaking research and development, and other academic activities".
2. The original Master Plan is for the period 1988 to 1997, and was submitted to the Government of Japan in December, 1986.
3. A revision was subsequently made and an implementation strategy drawn covering the first period of five years, that is 1988 to 1992.
4. Two request documents were prepared, one for Technical Cooperation (A), and the other for Grant Aid (B). These have been presented to His Excellency the Japanese Ambassador, for onward transmission to the Government of Japan.

APPENDIX

POSTING OF JKCAT GRADUATES

APPENDIX I: EMPLOYMENT AND POSTING OF JKCAT GRADUATES

1. FACULTY OF AGRICULTURE

1.1. AGRICULTURAL ENGINEERING

1984 GRADUATES

(a) POSTING BY MINISTRY OF AGRICULTURE

<u>NO.</u>	<u>NAME</u>	<u>POSTING/EMPLOYMENT</u>
1.	Gitaka J. K. Kimani	Embu Inst. of Agriculture
2.	Peter N. Materi	Central W/Shop, Nakuru
3.	Paul G. Gathuo	AMTU - Ciakago
4.	Duncan M. Muchira	Central W/Shop, Nakuru
5.	Cornel Omatu	AMS - Ciakago
5.	Peter N. Gicharu	PDA, Nyanza
7.	Frugene Kenneth Mbifwa	PDA, Central
8.	Barak C. Moho	PDA, Nyanza
9.	Mary Mbugua	PDA, Central
10.	Pije Ngari Mathuko	PIU, Kisumu
11.	Kariuki Ibrahim Wanyoike	Baringo F.T.C.
12.	Felix W. Njuguna	PIU, Nakuru
13.	Richard Miotoga Waweru	PIU, Mombasa
14.	Joseph T. Cituri	PIU, Kakamega
15.	James M. Muriithi	PIU, Nakuru
15.	Edward Gituto Wambugu	PIU, Nakuru
17.	Anthony Karuku	NDPRS, Katumani
18.	Baraka Okaba	IDRP, NAL
19.	John P. M. Wambua	ID/NSRS, Yibos
20.	James Karanja Cichanga	N.H.P.S. Thika
21.	David D. P. Gitahi	PDA, Coast
22.	John Njenga	PDA, Nyanza
23.	Tabitha Irura	PDA, Rift Valley
24.	David Thiru	PDA, Central
25.	Cerald Mbugua	PDA, Eastern
26.	John Mwirichia	PDA, Eastern
27.	David Njoroje	PDA, North Eastern
28.	Gabriel Oluwa	PDA, Coast
29.	Gilbert Wataka	PDA, Western.

(b) OTHER

1.	F. O. Okania	Customs Dep., Mombasa
2.	P. W. Kanyi	Insurance Company, Nairobi
3.	F. K. Mwirebua	Not Known

1955 GRADUATES

<u>NO</u>	<u>NAME</u>	<u>POSTING/EMPLOYMENT</u>
1.	P. M. Ferechi	Matuga Research Station, Kwale
2.	J. M. Nzyoka	Machakos
3.	W. Wanyonyi	Minor Irr. Scheme, Garisa
4.	E. K. Mugo	Manager, AMS, RTDU, Meru
5.	D. G. Njonge	Central Province, PIU
6.	D. K. A. Mutai	AMS, Kipkerion
7.	S. O. Nyatuoro	MOE Western
8.	J. N. Thimba	Central Provincial Coffee Factory Tech.
9.	R. K. Kiptanui	Manager, AMS, Kajlalo
10.	J. K. Chirchir	AMS, Kipkerion or AMS, Eldoret
11.	M. S. Sio	Kwale
12.	D. N. Gacheru	AMS, Ruiru or AMS, Nyahururu
13.	E. K. Ikubu	Central Province
14.	L. M. Muthoka	NDFRS, Machakos
15.	C. A. N. Kageme	RTDU, Nakuru
16.	A. C. Mwangi	Central Prov. Coffee Fac. Tech. Kiambu.
17.	K. C. Stephen	Central Province Wxtension Work
18.	S. Lemeria	AMS, Narok
19.	F. N. Gichohi	MEO, Laikipia District, Nyahururu
20.	S. G. Kariuki	MEO, Muranga
21.	C. M. Mwangi	AMS, Nyahururu
22.	C. A. Omoding	PIU WESTERN
23.	J. M. Thuri	Mitungu Irrigation Scheme
24.	B. M. Mugo	AMS, Garsen, Tana River District
25.	N. O. Ondimu	FTC, Kisii or Coffee T. Tech. Itisli.
26.	E. M. Kondo	Mombasa, Coast Province
27.	F. K. Gatheri	Uasin-Gishu, AMS, Eldoret
28.	H. W. Mzumbi	MEO Taita
29.	B. M. Muasya	NDFRS, Katumani, Machakos
30.	S. C. Rua	MEO, Kilifi
31.	C. K. Kiambati	PIU, Eastern Province.
32.	J. N. Achiel	PIU, Kisumu or Makueni
33.	J. O. M. Malingu	AMS, Nakuru or Eldoret
34.	F. T. Njoroge	Central Province
35.	C. R. Chepkoech	Kenya Tea Development Authority

1983 GRADUATES

<u>NO</u>	<u>NAME</u>	<u>POSTING/EMPLOYMENT</u>
1.	Umuro Dido Chanchato	AMS Mariakani
2.	William Kimtai Rolich	R.T.D.U. Kitui
3.	Francis E. Adagala	M.E.O. Bungoma
4.	Jackson Laon Swakei	R.T.D.U. Mtwapa
5.	George Eric Onyiloh A.	M.E.O. Busia
6.	James Enoit Imo	M.E.O. Tran Nzoia
7.	Kashera E. Lewa	M.E.O. Narok
8.	Jacob Kipkorir Bett	M.E.O. Nandi
9.	Kipruto Rono Kirwa	M.E.O. Laikipia
10.	Daniel B. Koëch	M.E.O. Meru
11.	Florence M. Musyoka	R.T.D.U. Siakago
12.	James Maina Murin	R.S.U. Nakuru
13.	Joseph Kipkoëch A.C.	M.E.O. Kisumu
14.	Cornel Omuse Omatu	AMS. Nakuru
15.	Dorothy Nyambura Gacheru	R.T.D.T. OL Joro Orok
16.	Fred Kinyanjui Gatheri	AMS Eldoret
17.	Catherine K. Kiambati	R.S.U. Nakuru
18.	Paul Gathera Gathuo	R.S.U. Nakuru
19.	David K. A. Mutai	M.E.O. Elgeyo Markwet
20.	Stephen Gitau Kariuki	R.S.U. Nakuru
21.	Stanley Lemeria	AMS Kipkelion
22.	Moses Wachanga G.	P.I.U. Rift Valley Province
23.	Wanjala Wanyanyi	AMS Marigat
24.	Joseph O. M. Malingu	AMS Cikariga
25.	Johanes Makodiah	P.I.U. Coast
26.	Kuresh Ali Dahiya	Matuga R.T.D.U.
27.	Cliny J. Dena	Baringo R.T.D.U.
28.	Thomas Okello Opondo	Bukura R.T.D.U.
29.	J. Nyakundi Orima	Nakuru R.T.D.U.
30.	Paul M. Gichohi	Katumanî R.T.D.U.
31.	Jesse Nichihah Muchai	Siakago R.T.D.U.
32.	Mozackaru Njiru Ndirangu	R.T.D.U. Nakuru
33.	James Mburu Ndirangu	R.T.D.U. OL Joro Crok
34.	William Ouma Umuja	R.T.D.U. Busia

NOTE

AMS	Agricultural Mechanisation Station
RTDU	Rural Technology Development Unit
MEO	Mechanisation Extension Officer
PIU	Provincial Irrigation Unit
AMTU	Agricultural Machinery Testing Unit
RSU	Rural Structure Unit.

1.2. FOOD TECHNOLOGY

STUDENT NAME

FIRM

1984 Graduates

1. Kyambu J.S.	Unga Ltd.
2. Nwangi T.G.	Njoro Canning
3. Otieno D.S.	K.T.D.A.
4. Muhara J.M.	Kenya Nut Co. Ltd.
5. Ndegna A.	K.N.T.C.
6. Rukunga B.G.	Elliots Bakeries
7. Wanjie J.W.	Teacher
8. Kwangi W.	Ideal Farm
9. Nacharia H.N.	Teacher
10. Karanja N.W.	Tamarinde Ltd.
11. Karari E.W.	Patian Bakery
12. Muraharu L.W.	K.C.C.
13. Kiruja C.	Self employment
14. Mungai E.W.	East Africa Industries
15. Kaka D.W.	ILARD

1985 Graduates

1. L. Waititu	Elliots Bakeries
2. A. Vainaina	Elliots Bakeries
3. S. Njau	Chuo Kaihatsu
4. M.S. Fulei	Nairobi Airport Service
5. A.K. Said	Tetra-Pak
6. M. Kairu	Student for HED
7. E. Nwangi	J.K.C.A.T
8. K. Nwangi	C.F.C. Kenya
9. D.K. Were	Agro-Chemical and Food
10. R. Ndeda	Nzio Sugar
11. J.K. Kennedy	Chuo Kaihatsu
12. F. Maranya	N.C.F.F.
13. N. Iwithiga	Njoro Canning
14. F. Kingori	House wife
15. G. Otarawa	House wife
16. I. Nyita	Self employment
17. E. Ngwa	
18. E. Iwale	Student
19. W.R. Kiriba	East Africa Industries
20. K.H. Iwadende	Kenya Port Authority
21. F. Irogo	Ministry of Agriculture

1986 Graduates

1. C.E. Akinku	Naivasha Veg. Plant
2. L.N. Fundi	Naivasha Veg. Plant
3. T.T. Kadere	Naivasha Veg. Plant
4. E.K. Kagwa	
5. S.C. Kibii	KCC Sidoret
6. E.G. Eihumbu	Naivasha Veg. Plant
7. E.J. Masinde	Naivasha Veg. Plant

STUDENT NAME

FIRM

1986 Graduates (Contd)

8.	D.J. Kua	Government Chemist
9.	W.K. Nwangi	J.E.C.A.T
10.	J.H. Ewilandi	Kenya Breweries
11.	E.H. Minda	
12.	A.H. Ngowa	
13.	E.G. Kjeru	
14.	E.J. Kyambo	
15.	P.H. Dali	
16.	M.P. Sichangi	KCB Naivasna
17.	E.H. Wachiro	
18.	L.W. Wathika	

1.3. HORTICULTURE

1984 Graduates

NAME	SEX	SVC	JOB	PO
1. C. NYONGESA	M	IN	P.D.A. RIFT VALLEY-MUMIAS SUGAR	
2. A. OGAO	M	IN	P.D.A. RIFT VALLEY	TO
3. S. B. MISIKO	M	IN	P.D.A. WESTERN	TO
4. E. K. KARANJA	M	IN	P.D.A. COAST	TO
5. K. M. KWANGI	M	IN	P.D.A. RIFT VALLEY (MAU EAST)	TO
6. T. S. MUNYUA	M	IN	P.D.A. EASTERN(MBOONI DIVISION)	TO
7. J. K. N. KARIUKI	M	IN	EMBU INSTITUTE OF AGRICULTURE	TO
8. C. K. MUNYAO	M	IN	P.D.A. EASTERN	TO
9. G. N. GITAU	M	IN	P.D.A. COAST	TA
10. T. ITA	M	IN	NATIONAL AGRICULTURE LABORATORIES	TO
11. J. KIAMA	M	IN	F.T.C. KIRINYAGA - P.D.A. CENTRAL	TO
12. J. M. MWARANIA	M	IN	P.D.A. EASTERN-CLINICAL CHEMICAL	-
13. J. O. OGWENO	M	IN	P.D.A. COAST	TO
14. C. N. MURANGA	M	IN	P.D.A. CENTRAL	TO
15. A. W. WATHAKA	F	IN	P.D.A. CENTRAL (NYERI)	TO
16. R. J. BOWEN	F	IN	P.D.A. RIFT VALLEY	TO
17. K. A. KIGEN	M	IN	HCDA	TO
18. N. J. MATATA	M	IN	P.D.A. WESTERN - P.D.A. COAST	TA
19. G. O. WAKHWALE	M	IN	M.O.A.L.D. (KILIMO HOUSE)	TO
20. P. N. MAUNDU	M	IN	N.H.R.S. (AIR PORT)	TO
21. R. S. NTOYAI	F	IN	P.D.A. RIFT VALLEY	TO
22. E. G. M'RERI	M	IN	P.D.A. CENTRAL (SABASABA, MURANGA)	TO
23. L. M. BAKARI	M	IN	P.D.A. CENTRAL (NYANDARUA DAO)	TO
24. R. K. SIELE	M	IN	P.D.A. NYANZA (SONDU)	TO
25. G. M. KIILU	M	IN	P.D.A. EASTERN	TO
26. N. K. KIRUI	M	IN	P.D.A. COAST	TO
27. V. O. OMOTTO	M	IN	DIRECTOR, LANDS & SETTLEMENT	TO
28. J. I. LIKOVELE	M	IN	DIRECTOR, LANDS & SETTLEMENT	TO
29. F. N. GIKONYO	F	IN	DIRECTOR, LANDS & SETTLEMENT	TO

NOTE M stands for male and F for female in SEX.

SVC means Service and IN means IN-SERVICE and PRE for PRE SERVICE.

P.D.A. stands for Provincial Director of Agriculture in JOBS, F.T.C. for Farmers Training Centre, N.G.R.S. for National Horticultural Research Station, DAO for District Agriculture Office, and DSO for District Settlement Office..

- means transfer or change of job. MOALD stands for Ministry of Agric. and Livestock Development. PO stands for Post; TA means Technical Assistant and TO means Technical Officer. NDPRS stands for National Dryland Farming Research Station, and HCDA for Hort. Crops Dev. Authority, A.D.C. for Agric. Development Corporation.

1985 Graduates

NAME	SEX	SVC	JOBS	PO
1. R. A. ATIENO	F	PRE	P.D.A. NYANZA	TO
2. S. N. MULLI	F	PRE	N.H.R.S.	TO
3. J. N. KAHINGA	M	PRE	P.D.A. CENTRAL	TO
4. J.M. GIKABA	M	PRE	P.D.A. RIFT VALLEY	TO
5. R. M. MBUTHI	M	IN	P.D.A. RIFT VALLEY	TO
6. J. K. NDUNGU	M	IN	P.D.A. CENTRAL (KIKUYU)	TO
7. P. M. GATHOKA	M	PRE	P.D.A. WESTERN	TO
8. P.S. KISHOYIAN	M	PRE	P.D.A. CENTRAL	TO
9. P. M. NDUBI	M	PRE	P.D.A. WESTERN	TO
10. C. A. NDINYA	F	PRE	RESEARCH DIV. (KILIMO HOUSE)	TO
11. A. M. KURIA	M	IN	P.D.A. WESTERN	TO
12. D. K. LANGAT	M	PRE	P.D.A. CENTRAL	TO
13. G. W. CHEGE	F	PRE	RESEARCH DIV (KILIMO HOUSE)	TO
14. R. K. KITHIEKA	F	PRE	P.D.A. EASTERN	TO
15. J. K. RUGAH	M	IN	P.D.A. RIFT VALLEY (KINANGOP)	TO
16. J. M. MUTISYA	M	IN	P.D.A. EASTERN	TO
17. H. K. MUNENE	M	IN	P.D.A. CENTRAL	TO
18. C. J. MACHIRA	M	IN	HCDA	TO
19. E. M. MULINGE	F	IN	P.D.A. RIFT VALLEY	TO
20. S. L. O. KARIA	M	IN	P.D.A. CENTRAL	TO
21. P. N. GACHUKI	M	IN	N. SEED QUALITY CONTROL SVC.	TO
22. G. X. KAKO	M	IN	P.D.A. WESTERN	TO
23. J. M. NJUGUNA	M	IN	P.D.A. CENTRAL	TO
24. L. W. GICHUKI	F	IN	RESEARCH DIV. (KILIMO HOUSE)	TO
25. S. K. CHESEREK	M	PRE	P.D.A. NORTH EASTERN	TO
26. A. W. SCRA	M	PRE	P.D.A. NORTH EASTERN	TO
27. D. K. CHERUIYOT	M	PRE	P.D.A. COAST	TO
28. E. W. KIRIMA	F	PRE	P.D.A. CENTRAL	TO
29. L. M. WATHAKA	F	PRE	D.A.O. NAIROBI	TO

1986 : Graduates

NAME	SEX	SVC	JOB	PO
1. J. M. KWANZIWI	M	PRE	P.D.A. EASTERN	TO
2. J. E. LO'ABONG	M	PRE	P.D.A. RIFT VALLEY	TO
3. A. O. MAKHULO	M	PRE	KENYA NUT CO.	-
4. M. MUGAMBI	M	PRE	P.D.A. COAST	TO
5. G. J. MOROGO	F	PRE	A.D.C. UP-COUNTRY FARM	-
6. I. N. K. MUHOYA	F	IN	EMBU INSTITUTE OF AGRIC.	TO
7. D. Z. BEJA	M	IN	P.D.A. COAST (MTUWAPA)	TO
8. D. M. NGIBUINI	M	PRE	P.D.A. COAST	TO
9. K. M. NGWIRI	F	PRE	P.D.A. COAST	TO
10. W. G. YAKO	M	PRE	HCDA	TO
11. D. M. GITHINJI	M	PRE	P.D.A. RIFT VALLEY	TO
12. M. O. O. SIGU	M	PRE	P.D.A. NYANZA	TO
13. C. K. NKUKUU	M	PRE	P.D.A. EASTERN	TO
14. J. N. KANTHIIRI	M	IN	P.D.A. EASTERN (EMBU)	TO
15. A. M. MOHAMED	M	PRE	P.D.A. NORTH EASTERN	TO
16. J. A. MOSONGO	M	IN	P.D.A. NYANZA (KISII)	TA
17. C. O. OPWAPO	M	IN	P.D.A. NYANZA (YALA)	TO
18. J. M. KIHAIU	M	IN	P.D.A. RIFT VALLEY (MOLO)	TA
19. I. LIDUBWI	M	IN	P.D.A. WESTERN (KAKAMEGA)	TA
20. A. OKBACHI	M	PRE	P.D.A. COAST (TAVETA)	TO
21. T. O. YAYA	M	PRE	HCDA	TO
22. P. G. MURIGI	M	IN	P.D.A. CENTRAL (MURANGA)	TO
23. M. A. ODONDI	M	PRE	HCDA	TO
24. L. M. MWOLOLO	M	PRE	P.D.A. COAST	TO
25. M. K. YEGO	M	PRE	P.D.A. NORTH EASTERN	TO
26. P. K. BUSIENEI	M	PRE	P.D.A. CENTRAL	TO
27. J. A. KEBAYA	M	PRE	P.D.A. RIFT VALLEY	TO

Those graduates who were employed by the Ministry of Agriculture were put as Horticultural officers at district level or division level.

2. FACULTY OF ENGINEERING

2.1. BUILDING & CIVIL ENGINEERING

ARCHITECTURAL TECHNICIAN (ART) - 1985 GRADUATES

<u>COLLEGE NO.</u>	<u>NAME</u>	<u>EMPLOYMENT</u>
1. 81/041	M. J. O. Odiko	M. O. W. D
2. 81/042	D. K. Gatimu	N. C. C.
3. 81/044	J. C. Wachira	M. O. W. D
4. 81/045	S. N. Kareithi	
5. 81/048	J. K. Bareh	M.O.W.H & P.P
6. 81/050	B. N. Kangethe	Self Employed
7. 81/051	L. K. Oruko	M.O.W.H & P.P
8. 81/126	C. M. Mungai	J. K. C. A. T
9. 81/203	N. K. Waita	Mutiso Munezes Inter.

ART 1986

1. 82/004	R. B. Majimbo	Rabaloo Associates
2. 82/021	C. M. Muchemi	M.O.W.H. & P.P
3. 82/022	S. W. Kariri	M.O.W.H. & P.P
4. 82/075	J. M. Njoka	M.O.W.H. & P.P
5. 82/080	F. M. Waweru	M.O.W.H. & P.P
6. 82/098	M. K. Kinuthia	M. O. W. D
7. 82/099	M. W. Maala	M. O. W. D
8. 82/100	J. S. Ndeke	M. O. W. D
9. 82/101	C. Mathugu	M. O. W. D
10. 82/132	P. M. Bosita	M.O.W.H. & P.P
11. 82/163	N. N. Wachuga	N. C. C
12. 82/173	A. M. Murani	M.O.W.H. & P.P

BUILDING CONSTRUCTION TECHNICIAN (BCT) - 1985 GRADUATES

<u>COLLEGE NO.</u>	<u>NAME</u>	<u>EMPLOYMENT</u>
1. 85/003	J. G. Mwangi	J. K. C. A. T
2. 81/191	J. N. Mbui	M.O.W (KERICHO)
3. 81/114	J. A. Olengo	M.O.W (COAST)
4. 81/115	P. N. Wainaina	Konoike
5. 81/205	D. O. Sitandi	J. K. C. A. T
6. 81/199	T.T. Ntimama	N.H.C U.S.A Studies
7. 81/179	J.O. Nyajoin	Private Company
8. 81/207	S. M. Githae	M.O.W (COAST)
9. 81/002	J. M. Gichira	J. K. C. A. T
10. 81/182	F. N. Mage	M.O.W (COAST)
11. 81/204	R. K. Mwithinga	Self Employed
12. 81/208	J. K. Kaairi	M. O. W

BCT 1986

1. 82/081	L. M. Omandi	M. O. W
2. 82/019	D. D. Tsui	M. O. W
3. 82/029	H. K. Njagi	M. O. W
4. 82/006	D. M. Miano	M. O. W
5. 82/047	J. N. Mungai	M. O. W
6. 82/049	F. M. Mbugua	Konoike
7. 82/083	Z. N. Ndege	Konoike
8. 82/096	L. K. Mutharia	M. O. W
9. 82/118	J. M. Kariuki	M. O. W
10. 82/156	S. K. Mutunga	M. O. W
11. 82/168	S. C. Mwangi	M. O. W
12. 82/172	P. L. Imbogo	Konoike
13. 82/200	L. M. Kibunge	M. O. W
14. 82/203	S. K. Chege	M. O. W
15. 82/180	T. M. Mutura	M. O. W
16. 82/181	T. K. Kahuhu	M. O. W
17. 82/183	P. K. A. Bii	M. O. W

IRRIGATION TECHNICIAN (IRT) - 1985 GRADUATES

<u>COLLEGE NO.</u>	<u>NAME</u>	<u>EMPLOYMENT</u>
1. 81/131	D. K. Rop	M. O. A
2. 81/037	F. K. Githogo	M. O. W. D
3. 81/039	W. R. Chebollet	M. O. W. D
4. 81/040	R. K. Sinei	M. O. W. D
5. 81/127	S. K. Nganga	J. K. C. A. T
6. 81/128	H. G. Kasasi	M. O. A
7. 81/129	S. N. Mutune	M. O. A
8. 81/130	S. Musyimi	M. O. A
9. 81/133	M. N. Adhan	M. O. A
10. 81/134	F. O. Odeyo	M. O. A
11. 81/135	P. K. Murage	M. O. A
12. 81/154	G. K. Kinyanjui	M. O. A
13. 81/140	G. W. Ochieng	M. O. W. D

IRT 1986

1. 82/086	E. K. Cigua	M. O. A
2. 82/091	D. O. Owuori	M. O. W. D
3. 82/092	J. K. Mutiso	M. O. W. D
4. 82/093	C. M. Muriuki	M. O. W. D
5. 82/095	D. M. Muchori	M. O. W. D
6. 82/102	S. K. Simiyu	M. O. A
7. 82/104	M. W. Githongori	M. O. A
8. 82/128	M. R. Nyaga (mrs)	M. O. A
9. 82/160	J. M. Rukenya	M. O. A
10. 82/161	A. S. Takoy	M. O. A
11. 82/166	G. I. Mwakitema	M. O. A
12. 82/167	S. Y. Kavisu	M. O. A
13. 82/204	N. K. Francis	M. O. A

2.2. ELECTRICAL AND ELECTRONICS ENGINEERING1985 ELECTRONICS

<u>NAME OF STUDENT</u>	<u>EMPLOYER</u>
1. Munandi Aside Andrews	Ministry of Agriculture
2. Richard Muchemi Weiragu	Ministry of Agriculture
3. John Nyapola Okello	Voice of Kenya
4. Ng'ang'a Joseph Gitau	Voice of Kenya
5. Wellington Oduor Aloo	Voice of Kenya
6. John Ndico Nderu	Voice of Kenya
7. James Mwalugha W. Mwanysi	Voice of Kenya
8. Richard Kipkemoi A. Sigey	Ministry of Agriculture

1985 INSTALLATION

1. Pauline Wachera Kamau	Ministry of Works, Housing & Physical Planning
2. Richard Ruirie	" "
3. Barrack E. O. Omotto	" "
4. James Onuko Orina	" "
5. Jackson M. Kahindi	" "
6. Raphael Wanjohi Nyaga	" "
7. Denis Njau Mungai	Ministry of Labour
8. Andrew Simon Kibunja	" "
9. Philip Musyimi Mue	" "
10. Peter M. Wac'ira	" "
11. Grace K. Kimani	Ngilu and Associates
12. Thomason Karanja Kamau	Ministry of Works, Housing & Physical Planning
13. Rosemary N. Ng'ang'a	" "

1986 ELECTRONICS

1. Silas Anthony Obanda	Business Machines Ltd.
2. Simon Okadi Wanyonyi	Post office
3. Timothy Dzonbo Chirumba	Business Machines Ltd.
4. Colinar Sensus Nyanga	Post office
5. Jot Akiranga Eakinya	"
6. Lilfred Matharia Miriti	"
7. John Otieno Aloys	"
8. Meshack Oumba Djado	"
9. Herman M. Kumba	"
10. Isaac Kimaru Githinji	"
11. Stanley Mburu Murgue	"
12. Alphance Kipyego Kandie	Music Craft Ltd.
13. Wanjire M. Waira	Post office
14. Margaret Mwakali Albert	Business Machines Ltd.
15. Walter Mvilo Ngundi	Post office
16. John Wanjohi Mureithi	"

1986 INSTALLATION

1. Joseph Cheruiyo Korir	Pan African Foods
2. Patrick K. A. Rono	Ministry of Works, Housing and Physical planning
3. James Munene Mugo	" "
4. Frederick Rotich Siele	" "

5.	John Ajue Njiru	Ministry of Works, Housing
6.	Dennis Nyambu	"
7.	Samuel Kiplangat Mitei	"
8.	Charles Otieno Orure	"
9.	Rebecca Wangechi Nderitu	"

2.3. MECHANICAL ENGINEERING

MOTOR VEHICLE TECHNICIAN

<u>1985 GRADUATES</u>		<u>1986 GRADUATES</u>	
<u>NAME</u>	<u>EMPLOYER</u>	<u>NAME</u>	<u>EMPLOYER</u>
1. Eleazar K. Rono	ISC	1. J.K. Ihiga	MOTC
2. King'ori Ndung'u	JKCAT	2. J.M. Lempesa	MOU
3. J.M. Kimani	KENGO	3. Moasu Bakari	MOTC
4. P.K. Kibiro	MOTC	4. S.K. Ngonga	"
5. I.K. Kanyungu	"	5. J.K. Njoroge	MOU
6. D.M. Karuri	"	6. W.K. Kipsoi	Jason Service Station
7. J.M. Wathing'o	MOU	7. J.K. Kipyakwai	MOTC
8. P.N. Mukami	"	8. S.K. Karichor	"
9. P.K. Karanja	"	9. A.V. Muinde	"
10. E.M. Wambugu	MOTC	10. J.A. Ambasi	"
11. G.G. Waiithaka	"	11. A.K. Joseph	MOU

CONSTRUCTION PLANT TECHNICIAN

1. Charles M. Mutema	MOTC	1. David M. Obuong	MOTC
2. J.M. Gatimu	"	2. C.M. Cheuno	"
3. Rowland S.M. Kamau	"	3. Atanas L. Cherop	"
4. Esei O. Alando	"	4. Charles Wazir	"
5. Michael O. Odhiambo	"	5. Daniel O. Adeya	"
6. Bernard N. Ihuku	"	6. Nelson K. Mwangi	"
		7. Geoffrey A. Mbitu	"

AGRICULTURE MACHINERY TECHNICIAN - 1986 GRADUATES

<u>NAME</u>	<u>EMPLOYER</u>
1. J.G. Muchai	Lagum Agric. Machinery
2. M.N. Mwangi	MOA
3. W.O. Umija	"
4. H.M. Shitundo	Kenya Nut Co. Ltd.
5. E.N. Mwangi	National Agricultural Laboratory
6. J.N. Oriha	MOA
7. J.M. Ndirangu	"
8. S.M. Wanjuki	"
9. T.O. Opondo	"

4. 専門家派遣実績

岡山大学 専門派遣実績表

1988年2月1日現在

No.	氏名	指導科目	派遣期間	人月	派遣時期	派遣先
	(チームリーダー)			TOTAL		
1	川口 龍夫	電	S.55.10.6 ~ 58.10.5	72		新日本政府コンサルタント
2	和田 安	チームリーダー	S.56.11.1 ~ 60.4.20	17		
※3	杉山 医彦	食品化学	S.61.4.18. ~ 63.4.20.			(JOCV OB)
	(アシスタントチームリーダー)			TOTAL		
4	中島 行男	実務調整	S.55.11.18 ~ 58.3.31	29		国際協力事業団
5	中野 繁	実務調整	S.58.5.21 ~ 61.4.20	35		国際協力事業団
※6	杉山 医彦	食品化学	S.55.10.6 ~ 63.4.20.			(JOCV OB)
※7	木村 伸一	建築設計	S.56.3.29 ~ 63.4.20			(JOCV OB)
※8	岡田 尚次	教育工学	S. . . ~ 63.4.20			(JOCV OC)
※9	大田 光彦	実務調整	S.62.1.31 ~ 64.1.30			国際協力事業団
	(農学部園芸学科)			TOTAL		
9	守屋 誠司	菜	S.55.10.24 ~ 63.4.20			(JOCV OB)
10	尾原 進ノ菜	菜, A.T.L	S.56.3.29 ~ 57.11.	20		フランク・ソウエチャー
11	早川 祐治	作物学	S.56.5.22 ~ 58.5.21	24		特内農業高校
12	真山 滋志	植物病理学	S.58.2.28 ~ 58.4.2	(知) 2		香川大学 農学部 園芸学科 助手
13	瀬野 裕六	昆虫学	S.58.2.21 ~ 58.3.23	(知) 2		大東文化大学 教養学部 教授
※14	森田 啓晴	ソノ	S.58.4.1 ~ 63.4.20			(JOCV OB)
15	森次 益三	作物学	S.58.4.9 ~ 59.4.8	12		岡山大学 農学部 助教授
16	関 太郎	植物分類	S.56.11.7 ~ 59.11.6	12		広島大学府県高島自然博物館 助教授
17	松原 幸子	植物病理	S.58.12.22 ~ 59.2.16	(知) 2		岡山大学 農学部 総合農業科学科 助教授
18	奥 八郎	植物分類	S.58.12.29 ~ 59.2.25	(知) 2		岡山大学 農学部 総合農業科学科 教授
19	高見 伸治	植物生理	S.59.10.4 ~ 59.11.30	(知) 2		広島大学 理学部 助例
20	橋目 伸弘	蔬菜園芸	S.60.7.5 ~ 61.6.28	12		香川大学 農学部 園芸学科 助教授

No.	氏名	名	特種科目	教職	期	人	所	試	先
1.2	其山 敬志	植物病理学		S.60.8.30 ~ 60.10.19	(知) 2	香川大学 農学部 園芸学科	助手		
2.1	中村 英可	花卉園芸		S.62.4.17 ~ 62.4.16		前 滋賀大学 教育学部	教授		
1.6	岡 本 隆	園 芸		S.60.8.30 ~ 60.10.19	(知) 2	広島大学附属広島自然植物実験所	助教		
(農学部農工学科)									
TOTAL									
2.2	中 沢 宗一	農業機械		S.56.9.15 ~ 58.9.30	31	日本工営株式会社			
2.3	杉 田 冨	農業土木		S.56.3.29 ~ 60.4.19	49			(JOCV OB)	
2.4	松 田 清明	農業機械		S.57.10.8 ~ 59.4.4	18	前広瀨産大 工学部 農業工学科	講師		
2.5	坂 井 純	農業機械		S.58.7.29 ~ 59.3.19	(知) 1	九州大学 農学部 農業機械学科	教授		
2.6	松崎 浩一	農業機械		S.58.10.27 ~ 59.1.26	(知) 3	九州大学 農学部 農業工学科			
2.7	木村 俊彦	農業機械		S.58.11.1 ~ 59.10.27	12	岩手大学 農学部 農業工学科	助手		
2.8	平塚 彰	土木工学		S.58.11.1 ~ 59.10.28	12	大阪産大 工学部 土木工学科	講師		
2.9	須 坂 正和	農業土木		S.59.12.30 ~ 60.9.9	(知) 2	京都大学 農学部	助手		
3.0	藤 田 清	農業土木		S.59.12.30 ~ 60.3.31	(知) 3	石川県立金沢短期大学	助手		
3.1	渡 辺 忠	農業土木		S.60.1.18 ~ 60.2.2	(知) 1	岡山大学 農学部 総合農業科学科	教授		
3.2	中山 政隆	農業土木		S.60.9.12 ~ 60.11.28	(知) 2	東京農工大学 農学部 農業工学科	助教		
3.3	藤 和 夫	農業土木		S.60.9.12 ~ 60.11.28	(知) 2	高知大学 農学部 農業工学科	助教		
3.4	藤部 九二雄	農業土木		S.60.12.24 ~ 61.12.23	12	鳥取大学 農学部 農業工学科	助手		
3.5	森 原 雄	農業土木		S.61.1.9 ~ 61.4.3	3	大阪府立大学 農学部 農業工学科	助教		
3.6	角 田 学	農業土木		S.61.3.3 ~ 63.4.20		前 東京工業大学 工学部 土木工学科	助手		
3.7	水 田 雅輝	農業機械		S.61.3.18 ~ 62.3.17	11	香崎大学 農学部 農業工学科	助教		
3.8	島 根 誠	農業機械		S.60.4.18 ~ 61.4.18	12	岩手大学 農学部	助教		
2.5	坂 井 純	農業機械		S.61.7.14 ~ 61.8.1	(知) 1	九州大学 農学部 農業機械学科	教授		
3.9	岡 田 安雄	農業機械		S.62.3.24 ~ 63.3.23				(JOCV OB)	
4.0	石 橋 延一	農業機械		S.62.4.2 ~ 63.4.1	12	前広瀨産大 工学部 農業化学科	助教		
4.1	野 中 俊博	農業土木		S.62.4.28 ~ 62.9.30	(知)	鳥取大学 農学部 農業工学科	助教		
4.2	若 武 英崇	農業土木		S.62.9.17 ~ 63.3.31	(知) ✓	愛媛大学 農学部 農業工学科	助教		

No.	氏名	名指課程科目	派遣期	期間	人月	派遣時所	職名
(農学部食品加工学科)							
TOTAL			90		(JOCV OB)		
4.3	杉山 啓彦	食品化学, TL	S.55.10.5 ~ 63.4.20	(短)	2	広島大学 生物生産学部	教授
4.3	保原 秀明	食品工学	S.55.11.17 ~ 56.1.18	(短)	2	東京農業大学	助教
4.4	浅利 晋泰	加工指	S.58.2.25 ~ 58.4.2	(短)	2	岡山大学 農学部	総合農産科学科 助手
4.5	宮本 裕	食品微生物	S.58.5.16 ~ 59.5.15		12	渡辺橋外起業	
4.6	渡辺 義男	工指計産	S.59.1.21 ~ 60.4.20		15	広島大学 生物生産学部	教授
4.7	久保田 清	食品工学	S.59.9.28 ~ 59.10.28	(短)	1	広島大学 生物生産学部	教授
4.8	楠本 秀夫	食品衛生	S.59.9.28 ~ 59.11.24	(短)	2	岡山大学 農学部	総合農産科学科 教授
4.9	楠本 茂吉	食品加工	S.60.10.12 ~ 63.4.20				
5.0	中江 利孝	食品微生物	S.61.7.28 ~ 61.8.18	(短)	1	香川大学 農学部	园艺学科 教授
5.1	北川 啓敏	果実・蔬菜加工	S.62.10.15 ~ 62.11.7	(短)	1		
TOTAL			90		(JOCV OB)		
1.4	森田 啓晴	蔬菜栽培	S.60.2.5 ~ 63.4.20				
5.2	野坂 海朗	農薬土木	S.60.5.19 ~ 63.4.20			日本工務株式会社	
5.3	野木 伸治	農薬栽培	S.60.12.9 ~ 63.4.20				
5.4	島村 和夫	農場管理	S.61.6.20 ~ 61.9.4	(短)	1	岡山大学 農学部	総合農産科学科 教授

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No.	氏名	指導科目	派遣期間	人月	派遣時期	派遣先
(工学部土木建築)						
TOTAL						
55	勝田順一	水質学	S.55.10.6 ~ 57.10.5	24	東京都庁	
56	伴川智光	建築材料	S.56.3.1 ~ 58.2.28	36	高層建設株式会社	
57	六事 昭	建築	S.58.3.7 ~ 58.4.3	(短) 1	京都大学 工学部 建築学科 教授	
58	井上英文	建築, ATL	S.56.3.29 ~ 58.6.29	27	久米建築事務所	(JOCV OB)
※6	米村伸一	建築, ATL	S.56.3.29 ~ 58.4.20	32		(JOCV OB)
59	佐 依 隆	水質学	S.58.3.23 ~ 60.4.20	25		
60	岡田佳久	建築	S.58.4.9 ~ 60.4.20	24	パトス建築設計	(JOCV OB)
※61	荒井徳昭	土質学	S.59.4.21 ~ 61.4.20	46		
62	中山 隆夫	建築	S.59.10.18 ~ 59.11.8	(短) 1	福山大学 工学部 建築学科 助教授	
63	野町隆三	建築	S.60.2.11 ~ 60.4.6	(短) 2	国際協力事業団 国際協力専門員	
※64	楠本 勝	建築	S.61.6.18 ~ 63.4.20	19	国際協力事業団 国際協力専門員	
65	村上正彦	土木工学	S.61.9.12 ~ 61.11.20	(短) 2	京都大学 工学部 土木工学教室 助手	(JOCV OB)
66	渡辺史夫	建築	S.62.10.1 ~ 62.11.16	(短) 2	京都大学 工学部 建築系教室 助教授	
(工学部機械工学科)						
TOTAL						
67	吉田 哲	建設機械	S.56.3.29 ~ 58.3.28	24	国土開発工業	
68	藤井佳明	機械工学	S.56.3.29 ~ 58.9.30	30	国際協力サービスセンター	
69	鈴木隆彦	自動車	S.56.5.22 ~ 58.5.21	36		(JOCV OB)
70	二宮 嘉弘	建設機械	S.58.5.21 ~ 59.6.13	13		
71	藤山 潤	建設機械	S.58.12.29 ~ 59.4.9	(短) 3	マルヤ重機株式会社	
72	森田英嗣	建設機械	S.59.3.24 ~ 62.4.20	37	三菱重工業株式会社	
73	菅本 啓二	農業機械	S.59.3.24 ~ 59.12.15	9	帯広畜産大学 畜産学部 農業工学科 教授	
※74	坂谷川 功次	建設機械	S.60.4.18 ~ 63.4.20	21	マルヤ重機株式会社	
75	安部 武美	農業機械	S.60.8.22 ~ 61.8.21	12	愛媛大学 農学部 農業機械学研究室 助教授	
76	大田 義彦	農業機械	S.61.8.5 ~ 62.8.4	12	埼玉大学 農学部 農業工学科 助教授	
77	谷本 規和	建設機械	S.61.10.13 ~ 61.12.6	(短) 2	京都大学 工学部 土木工学科 助教授	

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No.	氏名	名指	種	種	期	間	人	月	派	送	所	派	先
(工学部電気電子工学科)													
TOTAL													
1	川口 隆夫	電気	子	S.55.10.8	～	58.10.5	36		新日本技術コンサルタント				
78	小野 泰文	電気	子	S.55.12.7	～	57.12.6	24					(JOCV OB)	
79	長谷川 利治	電気	子	S.58.3.7	～	58.4.3	(短) 1		京都大学 工学部 数理工学科 助教授				
80	三浦 隆	電気	子	S.58.4.9	～	60.4.8	24		東京電気工務所			(JOCV OB)	
81	小林 康浩	電気	子	S.59.1.15	～	59.2.15	(短) 2		鳥取大学 工学部 電気工学科 教授				
82	齋藤 啓彦	電気	子	S.59.1.15	～	59.4.18	(短) 3		鳥取大学 工学部 電気工学科 助教授				
83	都築 英	電気	子	S.59.3.5	～	62.4.20	38		国際協力事業団 国際協力専門員				
※84	大久保 孝志	電気	工学	S.59.3.9	～	61.4.20	47						
85	湖井 裕	電気	子	S.59.7.16	～	59.8.3	(短) 1		鳥取大学 工学部 電気工学科 教授				
86	松岡 節	電気	子	S.61.7.7	～	61.8.1	(短) 2		鳥取大学 工学部 電気工学科 講師				
82	斎藤 隆彦	運管	指導	S.62.1.17	～	62.1.17	(短) 2		鳥取大学 工学部 電気工学科 助教授				
87	森谷 圭介	運管	指導	S.62.5.13	～	62.6.8	(短) 1		鳥取大学 工学部 電気工学科 教授				
85	湖井 裕	電気	工学	S.62.9.26	～	62.10.19	(短) 1		鳥取大学 工学部 電気工学科 教授				
(教習工学)													
※7	岡田 尚美	教習	工学	S.59.3.8	～	61.4.20	47					(JOCV OG)	
(調整員補佐)													
※88	小川 益志夫	調整員	補佐	S.61.4.28	～	63.4.27	22					(JOCV OB)	
(施設管理指導)													
89	菊池 敏彦	施設管理	指導	S.59.7.25	～	59.8.8	(短) 1		株式会社久米建設事務所				
(教材振付)													
90	関 孝夫	牛乳貯蔵	振付	S.60.5.18	～	60.6.2	(短) 1		新夏乳酪株式会社 技術部長			(JOCV OG)	
91	岩本 克己	牛乳貯蔵	振付	S.60.5.18	～	60.6.2	(短) 1		深尾乳酪株式会社			(JOCV OB)	

※ 現在派遣中の専門員
☆ 兼務

5. 青年海外協力隊員派遣実験

ジェモ・ケニヤック農工大学 隊員派遣実績

No	氏名	指導科目	隊次	派遣期間
農学部園芸学科				
1	鈴木洋二	作物	55-3	S. 56. 3. 6 ~ 58. 3. 5
2	中西健二	土壌肥料	56-2	S. 56.10. 7 ~ 58.10. 6
3	井戸栄治	植物学	56-2	S. 57. 9. 7 ~ 58.10. 6
4	高尾晃彦	作物	58-1	S. 58. 7.29 ~ 60. 7.28
5	田中樹	土壌肥料	58-2	S. 58.10. 7 ~ 62. 4. 6
6	高橋誠	花卉	58-2	S. 58.10. 7 ~ 60.10. 6
農学部農業工学科				
7	高見順一	数学	55-3	S. 56. 3. 6 ~ 56. 6. 物故
8	山本郁夫	農業機械	56-2	S. 56.10. 7 ~ 58.10. 6
9	伊佐清代治	農業土木	57-3	S. 58. 2.12 ~ 60. 3.11
10	片平寛	農業機械	58-2	S. 58.10. 7 ~ 60.10. 6
11	松井秀樹	農業機械	58-4	S. 59. 4. 4 ~ 61. 4. 3
12	長谷川庄司	農業土木	59-1	S. 59. 7.27 ~ 61. 7.26
13	江島均	農業機械	60-1	S. 60. 7.26 ~ 62. 7.25
14	長谷川啓光	農業機械	60-3	S. 61. 3.29 ~ 63. 3.28
15	橋本祐一	農業土木	61-1	S. 61. 8. 2 ~ 63. 8. 1
16	新井伸一	農業機械	62-1	S. 62. 8. 3 ~ 64. 8. 2
農学部食品加工学科				
17	小崎浩	食品加工	55-3	S. 56. 3. 6 ~ 59. 4. 5
18	西山栄徳	食品化学	57-1	S. 57. 7.30 ~ 60. 7.29
19	秋本徹	食品加工	58-2	S. 58.10. 7 ~ 61.10. 6
20	古川隆利	食加(肉)	58-3	S. 59. 1.21 ~ 61. 1.19
21	荒西睦雄	食品加工	60-1	S. 60. 7.26 ~ 62. 7.25
22	関友博	食品加工	62-2	S. 12.12.21 ~ 64.12.20

ジョモ・ケニヤッタ農工大学 隊員派遣実績

No	氏名	指導科目	隊次	派遣期間
農場				
23	田中昭彦	家畜飼育	60-1	S. 60. 7. 26 ~ 62. 7. 25
24	番義弘	果樹	60-2	S. 60. 12. 20 ~ 62. 12. 19
日本語				
25	川窪敏子	日本語	55-4	S. 56. 3. 31 ~ 58. 3. 30
26	長瀬修	日本語	57-3	S. 58. 1. 21 ~ 61. 1. 20
27	中沢秀樹	日本語	57-4	S. 58. 4. 1 ~ 60. 4. 30
28	前田幸彦	日本語	60-2	S. 60. 12. 20 ~ 62. 12. 19
29	駒井利江	日本語	シニア	S. 62. 12. 10 ~ 63. 4. 4
30	桑村さと子	日本語	62-3	S. 63. 3. 28 ~ 65. 3. 27
工学部土木建築科				
31	村上正吾	土木水利	56-1	S. 56. 7. 29 ~ 58. 7. 28
32	渡辺岳志	土木工学	58-1	S. 58. 7. 29 ~ 61. 7. 28
33	古木泰雄	測量	60-1	S. 60. 7. 26 ~ 62. 7. 25
34	加藤康浩	建築	60-2	S. 60. 12. 20 ~ 62. 12. 19
35	大矢俊次	土木水利	61-1	S. 61. 8. 2 ~ 63. 8. 1
36	澤益男	測量	62-2	S. 62. 12. 21 ~ 64. 12. 20
工学部機械工学科				
37	時田邦弘	農業機械	55-3	S. 56. 3. 6 ~ 59. 3. 5
38	高橋勉	自動車	56-1	S. 56. 7. 29 ~ 58. 7. 28
39	山本日出樹	自動車工学	58-1	S. 58. 7. 29 ~ 61. 7. 28
40	井上高志	農業建設機械	シニア	S. 58. 11. ~ 63. 4. 18
41	平出貞夫	工作機械	60-2	S. 60. 12. 20 ~ 62. 12. 19
42	浜崎竜英	自動車整備	61-3	S. 62. 3. 27 ~ 64. 3. 26
工学部電気・電子学科				
43	遠藤晋	電子機器	55-3	S. 56. 3. 6 ~ 58. 3. 5
44	深田秀夫	電気工学	57-3	S. 58. 1. 21 ~ 60. 1. 20
45	鎌谷啓行	電子工学	59-1	S. 59. 7. 27 ~ 61. 7. 26
46	井上善次郎	電気機器	59-3	S. 60. 3. 29 ~ 62. 3. 28
47	森田高広	電子機器	61-1	S. 61. 8. 2 ~ 63. 8. 1

6. JICA 研修員受け入れ実績

JICA 研修員受け入れ実績

No.	年度	学部	学科	氏名	研修科目	研修期間	受入先	職歴	最終学歴	備考
1	1980	農学部	園芸	E. M. Gichuki	昆虫学	1981-01-08~1983-03-31 帰	岡山大学農学部	ナイロビ大学理学部教官	ナイロビ大学動物学 1975 卒	
2	(6)	(3)	園芸	D. O. Sigunga	竹学	1991-02-11~1983-03-31 帰	岡山大学農学部	農業省農業試験場	ナイロビ大学農学修士 1980 卒	
3			食品	G. M. Kenji	食品分析	1981-02-12~1982-12-27 帰	岡山大学農学部	大統領府・食品検査官		
4		工学部	電気	C. W. Nyukuri	電気設備	1981-02-12~1982-03-31 帰	京都大学工学部		ナイロビ大学電気工学	
5		(8)	土建	P. N. Kaoau	石工	1981-02-11~1982-03-31 帰	京都大学工学部		ケニアポリテク土木建築	
6			土建	A. Wanyoike	木工	1981-01-09~1982-03-31 帰	庄田鉄工・住友建設助		ケニアポリテク	
7	1982	農学部	園芸	E. E. Omutere	果樹栽培	1982-06-17~1984-03-31 帰	岡山大学農学部	農業省地方事務教官	ナイロビ大学農学部	
8	(13)	(5)	園芸	(Miss)	野菜栽培	1982-06-17~1984-03-31 帰	岡山大学農学部	農業省地方事務教官	ナイロビ大学農学部	
9			農工	M. G. Mbugua	農薬土木	1982-06-17~1983-12-31 帰	東京農大農学部	高等学校農学教師	ケニアポリテク農学部	
10			農工	E. N. Kamotho	農薬機械	1982-06-17~1984-01-31 帰	東京農大農学部	農業省地方開発担当官	ナイロビ大学農学部	
11			食品	R. B. Akenga	食品衛生	1982-06-17~1984-03-31 帰	広大生物衛生学部	自然資源省水産教官	ナイロビ大学理学部	
12		工学部	土建	S. M. Njoroje	配管	1982-06-24~1983-07-14 帰	大坂電気暖房		ナイロビ大学地形学	
13		(8)	土建	S. N. Mugere	水資源工学	1982-10-05~1984-03-25 帰	京都大工学部	水開発省陸水担当官	ナイロビ大学土木科	
14			土建	E. D. Kamara	土木	1982-10-05~1984-03-25 帰	京都大工学部	ケニア鉄道公社技術補	ナイロビ大学土木科	
15			土建	A. Akumi	建築	1982-10-05~1984-03-25 帰	福山大工学部	国立住宅公社技術員	ナイロビ大学建築科	
16			機工	M. F. Oduori	農業機械	1982-10-05~1984-03-25 帰	常大農学部	ケニア鉄道公社技術補	ナイロビ大学機械科	
17			機工	S. N. Muiru	農業機械	1982-06-24~1983-07-04 帰	京都大工学部			
18			機工	C. N. Arshford	土木	1982-06-24~1983-11 帰	京都大工学部			
19			電気	J. P. Mburu	発電	1982-06-24~1983-07-04 帰	京都大工学部			
20	1983	農学部	園芸	A. O. Watako	花卉園芸	1984-01-31~1985-04-02 帰	岡山大学農学部	農業省研究官	ナイロビ大学農学部	
21	(13)	(3)	農工	J. T. Makanga	農業機械	1984-01-31~1985-03-04 帰	帯広畜大	農業省教官	ケニアポリテク 機械工学	
22			食品	P. N. Kariuki	食品加工機	1983-06-23~1984-06-22 帰	帯広畜大			
23		工学部	土建	D. G. Waereu	建設施工	1983-11-22~1984-12-26 帰	京都大工学部		ケニアポリテク 構造学科	
24		(10)	土建	M. S. Ibrahim	水資源工学	1983-11-22~1984-12-26 帰	鳥取大工学部	水資源省技術補	ケニアポリテク 構造学科	
25			機工	S. M. Maina	自動車	1983-11-22~1984-12-26 帰	大阪造大工学部	建設省	ケニアポリテク 機械工学	
26			機工	A. C. Juma	土木機械	1983-11-22~1984-12-26 帰	京都大工学部		科	

No.	年度	学部	学科	氏名	研修科目	研修機関	入学先	職歴	最終学歴	備考
27	1983	工学部	機工	A. O. Odawa	農業機械	1983-11-29 ~ 1984-12-24 婦	京都大学農学部	Hughes Ltd.	K.T.T.C.1981年卒	
28			機工	G. N. Thoigu	接	1983-06-23 ~ 1984-06-22 婦	大阪工大		ケニテ利電気学科 1979年卒	
29			電気	J. M. Mwangi	器	1983-11-22 ~ 1984-12-26 婦	京都大工学部		ケニテ利電子学科 1979年卒	
30			電気	E. W. Mwangi	電子工学	1983-11-22 ~ 1984-12-26 婦	京都大工学部		ケニテ利電気学科 1982年卒	
31			電気	E. N. Ndungu	電子工学	1983-11-22 ~ 1984-12-26 婦	鳥取大工学部	E. A. Power&Lighting		
32			電気	E. M. Mwaniki	電子工学	1983-11-22 ~ 1984-12-26 婦	鳥取大工学部			
33	1984	農学部	食品	G. C. Walyaroo	製パン	1984-05 ~ 1984-12-24 婦	日本製パン学校	高等学校技官	1974年卒	
34	(8)	(3)	農工	(Mrs.)	農業機械	1984-05 ~ 1985-07 婦	岩手大農学部	農業省技官	1980年卒	
35			食品	J. A. Owaka	食品微生物	1984-12 ~ 1985-10 婦	岡山大農学部	労働省電力管理官		
36				S. B. C. Gichuru						
37										
38		工学部	電気	S. J. Nyaga	電気通信	1984-04 ~ 1985-06 婦	鳥取大工学部	情報報道省	ケニテリ警察学校 1981年卒	
39		(5)	電気	J. O. Otieno	電力	1984-11-15 ~ 1985-12-25 婦	鳥取大工学部	労働省電力管理官		
40			電気	J. O. Konyango	電力	1984-11-15 ~ 1985-12-25 婦	鳥取大工学部			
			電気	C. Mamalwa	電力	1984-11-15 ~ 1985-12-25 婦	鳥取大工学部			
			機工	J. G. Kigia	自動車	1985-02-26 ~ 1986-3 婦	大阪産大工学部			
41	1985	農学部	園芸	V. W. Ngumi (Miss)	植物生理	1985-09-16 ~ 1986-03-22 婦	広島大農学部			
42	(12)	(3)	園芸	W. N. Gachathi (Miss)	農業協同組合論	1986-02-25 ~ 1986-10-03 婦	岡山大農学部			
43			食品	L. B. Mwajuma (Miss)	食品加工	1985-09-30 ~ 1986-04-30 婦	香川大農学部			
44										
45		工学部	電気	G. O. Otieno	電気	1985-12-05 ~ 1986-12-22 婦	鳥取大学			
46		(9)	電気	F. K. Kisingu	電気	1985-12-05 ~ 1986-12-22 婦	鳥取大学			
47			機工	J. M. Kabira	溶接・板金	1985-04-18 ~ 1986-03-20 婦	集団コース			
48			土建	N. W. Waitthaka	木工	1985-04-18 ~ 1986-03-20 婦	集団コース (木材加工)			
49			機工	G. W. Wanjau	機工	1985-08-01 ~ 1986-07-05 婦	大阪産大			
50			土建	H. G. Mwaura	コンクリート工学	1985-08-23 ~ 1986-04-02 婦	京都大学			
51			土建	F. W. Simba	建築デザイン	1985-09-30 ~ 1986-11-01 *	福山大学・小建築設計室			
52			電気	P. K. Kingara	電子	1985-08-01 ~ 1986-10-04 婦	鳥取大学			
			土建	G. M. Thumbi	公衆衛生・灌漑	1985-09-05 ~ 1986-10-04 婦	大阪産大大学・筑波農業センター			