

4. 討議議事録(学士課程協力フォローアップ終了時評価調査時)

MINUTES OF MEETINGS
BETWEEN
THE JAPANESE EVALUATION TEAM AND
THE AUTHORITIES CONCERNED OF THE GOVERNMENT
OF THE REPUBLIC OF KENYA
ON FOLLOW-UP PROGRAMME OF JAPANESE TECHNICAL COOPERATION
FOR
JOMO KENYATTA UNIVERSITY OF AGRICULTURE AND TECHNOLOGY
(UNDERGRADUATE PROGRAMME) PROJECT

The Japanese Evaluation Team (hereinafter referred to as "the Japanese Team"), organized by the Japan International Cooperation Agency (hereinafter referred to as "JICA") and headed by Prof. Hiroji Nakagawa, visited the Republic of Kenya from February 11 to February 19, 2000.

During its stay in the Republic of Kenya, the Japanese Team had a series of discussions with the Kenyan authorities concerned, and jointly evaluated the present achievements of the Follow-up programme for Jomo Kenyatta University of Agriculture and Technology (Undergraduate Programme) project (hereinafter referred to as "the Project") and exchanged views on the project activities to fulfill the Record of Discussions signed on February 5, 1997.

As a result of the discussions, the Japanese Team and the Kenyan authorities concerned agreed to report to their respective Governments the matters referred to in the document attached hereto.

Nairobi, February 18, 2000



Prof. Hiroji Nakagawa
Japanese Leader
Evaluation Team
Japan International Cooperation Agency
Japan



Mr. W.K.K. Kimalat, MGH
Permanent Secretary
Ministry of Education, Science and
Technology
The Republic of Kenya

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THE ATTACHED DOCUMENT

1. INTRODUCTION

1-1. The Evaluation Team

The Japanese Evaluation Team (hereinafter referred to as "the Japanese Team") organized by the Japan International Cooperation Agency (hereinafter referred to as "JICA"), headed by Prof. Dr. Hiroji Nakagawa, visited the Republic of Kenya from February 11 to February 19, 2000 in order to jointly evaluate with the authorities concerned of the government of the Republic of Kenya. The visit aimed to evaluate the achievement of the Japanese technical cooperation for the Jomo Kenyatta University of Agriculture and Technology (hereinafter referred to as "the Project") on the basis of the Record of Discussions signed on February 5, 1997 (hereinafter referred to as "R/D").

The Japanese Team discussed and studied together with the Kenyan side regarding among other things, the achievement, impacts and sustainability of the Project.

Through careful studies and discussions, both sides summarized their findings and observations as described in this document.

1-2. Schedule of the Japanese Evaluation Team

(February 11 - February 19, 2000)

<u>Date</u>	<u>Schedule</u>
February 11 (Friday)	Arrival at Nairobi Courtesy call and discussions with Japanese ambassador Meeting with JICA Kenya office
February 12 (Saturday)	Meeting and discussions with Japanese experts
February 14 (Monday)	Courtesy call to Mr. W.K.K. Kimalat, MGH Permanent Secretary of Ministry of Education, Science and Technology Interview with Mr. Obonyo, Senior Deputy Director (University Education) Courtesy call to Vice Chancellor Prof. Michieka and discussions with JKUAT Steering Committee
February 15 (Tuesday)	Department level meeting and management level discussion
February 16 (Wednesday)	Department level meeting and management level discussion Department level discussion Preparation of Minutes of Meetings
February 17 (Thursday)	Joint Coordinating Committee
February 18 (Friday)	Signing of the Minutes of Meetings Report to the Embassy of Japan
February 19 (Saturday)	Report to JICA Kenya Office Departure from Nairobi

1-3. Evaluators

1-3-1 The Japanese Side

Prof. Hiroji Nakagawa	Leader / Civil Engineering and Architecture
Prof. Yutaka Fukui	Mechanical Engineering and Electrical / Electronics Engineering
Prof. Masaharu Masuda	Horticulture
Prof. Atsushi Yomota	Agricultural Engineering and Food Science
Mr. Toshihiro Obata	Educational Evaluation
Mr. Jumpei Watanabe	Evaluation Planning
Mr. Akira Matsumoto	Evaluation Analysis
Mr. Kazuro Shibuya	Cooperation Planning

1-3-2 The Kenyan Side

Mr. W.W. Kimalat	PS, Ministry of Education, Science and Technology
Mr. K. Khasiani	Representing PS, Ministry of Finance and Planning
Mr. S. P. M. Kyungu	Director of Education, Ministry of Education, Science and Technology
Mr. J. S. Obonyo	Senior Deputy Director of Education (University Education), Ministry of Education, Science and Technology
Mr. J.M. Wekesa	Chief Finance Officer, Ministry of Education, Science and Technology
Mr. C. K. Thuku	Assistant Director of Education, Ministry of Education, Science and Technology
Ms. Shobhna Shah	Ministry of Finance and Planning
Prof. R.W. Michieka	Vice Chancellor, JKUAT
Prof. H.M. Thairu	Deputy Vice Chancellor, Academic Affairs
Prof. F.N. Onyango	Deputy Vice Chancellor, Administration, Planning and Development
Prof. F.Kaberia	Deputy Vice Chancellor, Research, Production and Extension
Dr. C.I. Nindo	Dean, Faculty of Agriculture
Dr. P.N. Kioni	Dean, Faculty of Engineering
Prof. Mabel Imbuga	Dean, Faculty of Science
Dr. L. A. Oyugi	Director, Institute for Human Resource Development
Mr. J.M. Mberia	Registrar, Academic Affairs
Mr. J.G. Kinyanjui	Ag Registrar, Research, Production and Extension
Mr. E. M. Cheptumo	Ag Registrar, Administration, Planning and Development
Mr. F.N. Mwenja	Finance Officer

1-4 Methodology of Evaluation

1-4-1 Method of Evaluation

The evaluation study was conducted in accordance with the JPCM (Japan Project Cycle Management) method in following steps:

- 1) The Project Design Matrix (hereinafter referred to as "PDM") was agreed upon by both sides as a basis of the evaluation.
- 2) Achievement of the Project was studied by collecting data and other relevant information.
- 3) Analysis was made for five (5) evaluation criteria described below.

1-4-2 Evaluation Criteria

The Project evaluation was conducted based on the following five (5) criteria, which are in line with those used for the evaluation works by DAC (Development Assistance Committee), OECD and other international assistance organization:

- 1) **Effectiveness** was assessed by analyzing the achievement of project outputs and purpose, followed by an analysis on the factors for any deviations from the original plan.
- 2) **Efficiency** of project implementation was analyzed focusing on quality, quantity, timing of input, overall management of project activities and the utilization of project input.
- 3) **Impact** of project was identified focusing mainly on the positive and negative direct impact of project, and is related to the overall goal of project realized at the time of evaluation, followed by an analysis of future prospect of realization of overall goal.
- 4) **Relevance** of project was reviewed based on the latest PDM, and the validity of project purpose and goals was assessed in connection with the development policy of the Kenyan government, needs of the beneficiaries, and then process of planning was also reviewed.
- 5) **Sustainability** of project beyond the time of the donor's involvement was forecast by examining major factors affecting sustainability such as organizational / financial / technical aspects.

1-4-3 Sources of Information Used for Evaluation

The following sources of information were used in this evaluation study:

- 1) Documents agreed by both sides prior to and/or in the course of the Project implementation including:
 - R/Ds,
 - Minutes of the Meetings,
 - Tentative Schedule of Implementation (hereinafter referred to as "TSI"),
 - Technical Cooperation Programme (hereinafter referred to as "TCP") and
 - Others
- 2) PDM (Annex 1)
- 3) Record of inputs from both sides and activities of the Project
- 4) Interviews and questionnaires to project counterpart personnel, Japanese experts, related organizations
- 5) Observations of equipment and facilities of JKUAT



2. BACKGROUND AND SUMMARY OF THE PROJECT

2-1. Background of the Project

After the project-type technical cooperation for Jomo Kenyatta University College of Agriculture and Technology at Diploma level was successfully completed, the Kenyan Government had submitted a request for the Japanese government to continue her assistance to Jomo Kenyatta University College of Agriculture and Technology at undergraduate level.

In response to the above request, JICA dispatched several Survey Teams to examine the technical issues and the purpose, outputs, activities of the programme. As the result of the survey, the R/D was signed on April 5, 1990.

At the last year of implementation stage, the Evaluation Team was dispatched in August 1994, and the extension of the duration of the programme for two years, was agreed upon October 19, 1994. When the Evaluation Team of the above-extended duration was dispatched August 6, 1996, the Evaluation Team had recommended the follow-up programme.

After the extension, the follow-up programme for three years was agreed upon February 5, 1997.

2-2. Chronological Review of the Project

1990	March	Commencement of Grant Aid construction
	April	Commencement of a new Technical Cooperation
	November	First Graduation Ceremony of JKUCAT
1992	October	Second Graduation Ceremony of JKUCAT
1993	February	Commencement of Third-country Group Training Course (supported by JICA)
	March	Completion of Grant Aid Construction
	December	Third Graduation Ceremony of JKUCAT Declaration of full-fledged University status to become Jomo Kenyatta University of Agriculture and Technology (hereinafter referred to as "JKUAT")
1994	November	Enactment of the JKUAT Act in Parliament
	December	Inauguration of JKUAT and First Graduation Ceremony (Undergraduate)
1995	January	Commencement of First In-country Training Course (supported by JICA)
	October	Second Graduation Ceremony of JKUAT
1996	February	Approval of revised syllabi by JKUAT Senate
	April	Implementation of revised syllabi
	September	Third Graduation Ceremony of JKUAT
1997	April	Fourth Graduation Ceremony of JKUAT Commencement of follow-up Technical Cooperation Programme
1998	April	Fifth Graduation Ceremony of JKUAT
1999	April	Sixth Graduation Ceremony of JKUAT
2000		Implementation of 6 Third-Country Group Training Courses

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2-3. Objective of the Project

The original objectives and outputs of the Project stated in the R/D were reviewed by the Kenyan Team and the Japanese Team in order to evaluate the results of the Project properly, and rephrased as follows in the PDM:

Overall Goal: The graduates of JKUAT contribute to promotion of agricultural and industrial development in Kenya.

Project Purpose: Students with sufficient knowledge and skills required in the fields of agriculture and technology graduate from the seven designated departments at JKUAT.

Outputs:

- 1) Management system of JKUAT is improved.
- 2) Theoretical and practical higher education to undergraduate students is provided.
- 3) Quality of academic staff is improved.
- 4) The facilities and equipment necessary for degree courses and research activities are improved.
- 5) Research is conducted.

The Activities of the Project are reviewed based on the Outputs and also Indicators and Means of Verification are described in the PDM for Evaluation in Annex 1.

2-4. Tentative Schedule of Implementation (TSI)

The tentative schedule of implementation at this survey is shown in Annex 2.

3. EVALUATION

3-1. Achievement of the Implementation Plan

Achievement of the Implementation Plan is shown in the Annex 3.

3-2. Results of Evaluation

3-2-1. Effectiveness

The Project has been implemented successfully in general, even though the outputs varied in each department.

The success of the Project owes much to the strong support and commitment from both Japanese and Kenyan governments, the close and long-term collaboration among Japanese experts and Kenyan Counterpart Personnel (hereinafter referred to as the "C/P").

Achievement of Project Outputs

The following outputs have been achieved within the Project period:

1) University Management

In November 1994, the Jomo Kenyatta University College of Agriculture and Technology was elevated to a full-fledged university; the Jomo Kenyatta University of Agriculture and Technology (JKUAT), through an Act of Parliament. The enactment empowered JKUAT to obtain a firm legal and organizational foundation upon which it can pursue future consolidation and development.

In August 1996, JKUAT was jointly evaluated by the Japanese evaluation team organized by JICA and the authorities concerned of the government of Kenya in terms of the University's effectiveness to facilitate full achievement of the objectives of the project and to ensure the project's sustainability. As a result of the evaluation, it was recommended that JKUAT should take measures to have more efficient and decentralized management systems such as;

- (1) delegating to the appropriate staff members some of the Vice-Chancellor's administrative tasks of daily operational nature,
- (2) making annual budget disbursement plan according to each department's planned activities, and
- (3) developing effective budgeting and accounting systems.

Since then, JKUAT has taken realistic measures according to the action plan set by Vice Chancellor, Prof. R. W. Michieka in April 1998. The action plan is given in Annex 4. The list and schedule of the actions which JKUAT has taken and will take in the near future have been compiled for reference among the staff of JKUAT.

It is noted that JKUAT has been developing the computerized systems in order to formulate the annual revenue and budget plan, which is based on the respective departmental annual plans of activities. The first revenue and budget plan for the FY 1999/2000 was compiled through the systems in June 1999. It is the first documentation of this kind of annual plan for JKUAT in its history. It is also noted that the systematic planning and disbursement at JKUAT has reached an advanced stage compared to other public universities in Kenya.

2) Provision of theoretical and practical higher education

The University has continued to provide theoretical and practical higher education. All the teaching programmes of undergraduate courses reached full cycle and the University has produced graduates from all the seven (7) departments concerned. The number of graduates has grown to 510 in total during last three years.

The review of curriculum was completed in all the seven (7) departments' courses, and the syllabus was prepared. Through the preparation and review, the Kenyan C/P have acquired the capacity to undertake syllabus review. Further, common subjects have been harmonized to reduce duplication and encourage sharing of resources.

3) Improvement of quality of staff

Firstly, JKUAT has made considerable achievement in terms of the staff development. Therefore, JKUAT has highly trained academic and technical staff in each field.

Secondly, individual members of staff have attained remarkable progress in the research and educational capability since the undergraduate programme was started in 1990.

Most of the academic and technical staff who were on study leave have reported back to the University after acquiring higher degrees/certificates, and have strengthened the research and educational capability of the University. During the undergraduate programme, approximately 130 staff members have attained higher degrees.



4) Improvement of facilities and equipment

The facilities and equipment required for degree courses and research activities have been improved. In addition, the equipment is well utilized and properly maintained.

5) Research Activities

In parallel with the establishment of facilities, the research environment has gradually improved. Most of the academic staff is involved in research work and they regularly present technical papers. As a result, the output of research activity has increased considerably. JKUAT staff members are focusing on undertaking applied research relevant to the economic and social needs using locally applicable technologies.

Major Factors that Affected Project Implementation

Utilizing sufficient facilities and equipment, the University has been offering practical education and also adopted a highly technical-oriented curriculum. At the same time, excellent students have been admitted to JKUAT.

In fact, student disturbance and strikes on campus were rare compared to the other universities in Kenya. Therefore, the semesters have been implemented on schedule, which enable JKUAT to produce graduates earlier than other public universities.

On the other hand, there are some factors that adversely affected the progress of Project.

The JKUAT activities have sometimes been adversely affected by the attitude of some academic and technical staff towards teaching, research and poor attendance to meetings.

Owing to the power failure, the Project activities were sometimes interrupted.

The budget of the university was affected by the deterioration of economic situation in Kenya.

3-2-2 Efficiency

1) Timing of Inputs

Japanese side

Dispatch of experts, provision of machinery/equipment and C/P training, have been implemented smoothly on schedule. Inputs to the Project have been mostly appropriate and utilized effectively.

Timing of the training in Japan was appropriate and technical transfer became more efficient as a result of the training. However, some equipment was only provided at the end of the year, so timing of the inputs was not adequate.

Kenyan side

The Science Complex/Architecture Building which Kenyan side has to provide, have not been made available and the construction has been suspended. The suspension has been an obstacle for the education and research in seven departments.

Under the strict economic situation in Kenya, the university budget has been limited. Budgetary allocation for teaching and research activities to the department was inadequate over the years and there have been constraints for efficient management of departments. Nevertheless, its influence to the Project activities was minimized by the financial support

from JICA. Lastly, the Kenyan side has managed to a great extent to meet its obligations to implement the Project.

2) Quality, Quantity and Timing of Inputs

Quality, quantity and timing of inputs was appropriate, and was reflected by the outputs sufficiently. Machinery and equipment was fully utilized and well maintained, but there have found partly that some equipment was out of production and there were difficulties in purchasing spareparts. Maintenance of facilities and management of spareparts was in some cases inadequate. Local costs by Japanese side, was utilized effectively and contributed to the smooth implementation of the Project.

Relationship with Relevant Organizations and Projects

The Project has been efficiently implemented with the help of JICA, and also supported by collaboration with various institutions from Japanese universities and ministries.

The implementation of Third-country and In-country training programmes has contributed to the Project, by upgrading the capability in each department, good utilization of farm, workshop and equipment. In additions, the programmes have contributed to the improvement of management system in University.

Technical exchange with other African Universities has become active and there is hope to enhance regional collaboration in training and research. Acquisition of higher degree is a key incentive for C/P, thus the Monbusho scholarship, in this sense, strongly assisted many C/P to study and attain higher degrees in Japan. Finally, there has been adequate support of the dispatch of experts and acceptance of C/P in Japan for the Project.

3-2-3. Impact

1) Direct Impact (Project purpose level)

Individual Impact

A long-term view is required to assess the impact of human resource development, and it is noted that JKUAT staff development is still ongoing. However, it is possible to count some important effects of the Project as follows.

All JKUAT staff is becoming confident in both teaching and research activities by upgrading academic qualification and skills profile through appropriate staff development programme.

The employment of the JKUAT graduates is quite a favorable outcome, even though finding a job is becoming difficult in Kenya due to the deterioration of economic condition. The general response is that most employers would prefer the graduates of JKUAT to the graduates of other universities in the corresponding fields of expertise. They are well trained both in theory and practice, and adapt well to work environment. Further, JKUAT is now able to employ some of its graduates to join the academic staff and receive further training locally and abroad. On the other hand, the University is approved a new appointment/promotion criteria which is applied fairly so as to attract and retain qualified staff.



Institutional Impact

Through the sponsorship of in-country/international seminar and conferences supported financially by JICA, the University has enjoyed the benefits of staff motivation and management of JKUAT as well. By the research presentation toward academic journals, it is clear that this support has contributed to the activation of education and research.

2) Indirect Impact (Overall goal level)

The higher level impact shall be difficult to analyze qualitatively because of the short period of JKUAT history so far. It is expected that JKUAT contribute to the promotion of agricultural and industrial development in Kenya, judging from the achievement of the overall goal. From the point of performance of JKUAT students, their enrollment and performance is high.

3) Other Major Factors

Not only Kenyan but also other country persons have benefited from the extension programme, e.g., Third-country and In-country programme. Such programmes are contributing to the human resource development steadily in each country. Further, the training programme is linked to the good reputation of JKUAT.

Significant negative impact of the Project is not observed or foreseen.

3-2-4 Relevance

In the 8th National Development Plan (1997-2001), as one of the strategies for achieving rapid and sustained economic growth and also the Kenyan government declared Industrial Transformation by the year 2020.

JKUAT has coherence with this policy, in that it has developed, making a great deal of contribution to the training of human resources, which are necessary to fulfill the above-mentioned policy. With the precise review of contribution of JKUAT, it has not only done many researches applied to actual use in the field of agriculture and technology, but also has prepared the students for the practical attachment in the curriculum which they must be engaged in. Thus the Project, which cooperates with JKUAT, is found relevant.

In order to meet the needs of the Kenyan society, the Project is found to hold relevance. About 80% of the gross population in Kenya are engaged in the agricultural sector and Kenyan export depends mainly on agricultural products to the level of about 50%. At the same time, industrialization is the urgent goal by 2020 as mentioned above, technicians and experts who have strong leadership and knowledge based on science technology are going to be necessary to the society as soon as possible.

At the level of the Project Purpose, which is described as "Students with sufficient knowledge and skills required in the field of agriculture and technology graduate from the seven designated department at the JKUAT", the outputs have already been seen from the fact and figures that graduates from JKUAT have entered private enterprises and ministries by fully making use of their specialty on actual and applied researches. Also as an implementation organization of the Project, JKUAT is found relevant because of the base and the culture of respecting actual learning.

As a result the Project Purpose is still found relevant from the view of raising human resources that can solve the problem and meet the needs of Kenyan society in the field of

agriculture and technology.

3-2-5. Sustainability

3-2-5-1. Organizational Sustainability

As is stated in 3-2-1. 1), the JKUAT has taken realistic measures in order to improve its management systems according to the action plans set by Prof. R.W. Michieka, Vice Chancellor of JKUAT in April 1998. These steady efforts would certainly make the JKUAT a more effective and efficient organization.

The improvement of the university management systems is one of the indispensable conditions for JKUAT to become a center of excellence in practical higher education in the fields of agriculture and engineering in Kenya as well as Africa as a whole. It is highly expected for JKUAT to make further continuous efforts for betterment of its management.

3-2-5-2. Financial Sustainability

Due to the current weak economic situation in Kenya and also due to the Kenyan government's policy shift which put priority on funding primary and secondary education than on the higher education, the governmental budget allocations for universities including JKUAT are said to be far short for their necessities.

JKUAT has 439 million KShs in total amount of the FY 1999/2000 budget. The budget is composed of 329 million KShs transferred from the central government, 68 million KShs from tuition on fees and 42 million KShs from others. Within the revenue, JKUAT could assure the proper educational activities to the students. JKUAT has, however, faced the difficulties in implementing necessary research and development activities, which weakens the sustainability of JKUAT's mission.

It is pointed out that the government allocation on the basis of the single unit cost per student has resulted in the shortage of research and development budget of the universities. The Ministry of Education, Science and Technology has recognized this issue and started to consider the differentiated unit cost based on the field of studies. Also, the Ministry has prepared for the official request to the Treasury in order to expand its budget in the research and development and to deal with the shortage in the budget for universities.

JKUAT itself is reactivating income-generating activities in order to cover the shortage in its budget. At the moment, JKUAT is in the process of formalizing formation of an organization charged with the responsibility of coordinating all the activities of income generating units. Profits made in these units are ploughed back to departments for improvement of academic programmes.

JKUAT needs to strengthen the financial foundation by increasing its revenue from the income generating activities. Also, JKUAT needs to reduce the unnecessary expenditure through effective management of the university.

3-2-5-3 Technological Sustainability

The Kenyan C/P as a whole are fully developed to conduct most of the lectures and practical on their own, and it is expected that the undergraduate degree programme courses at JKUAT will be carried out more or less self-reliantly in the year 2000. Although JKUAT enjoys a high rate of retention of C/P unlike some of the other institutions at this stage, it does not appear so likely that JKUAT remains an exception for long, unless appropriate



countermeasures against head-hunting are seriously considered and put into practice by the Kenyan government. The guidelines on procedures and criteria for appointment and promotion for academic staff members set by JKUAT in 1999 would be expected to give good incentives to the Kenyan academic staff to retain in JKUAT through the transparency of the JKUAT's promotion policy.

The Kenyan teaching staff as a whole is now more active in research and development activities, but the level of activities varies from one individual to another. There is need for the staff to devote more of their energy to researches, especially on those subjects which are more appropriate to and focused on local needs and locally applicable technologies. The allocation of research funds available for JKUAT needs to be more focused on such subjects mentioned above rather than the funds distributed discursively to as many individuals as possible. The teaching staff should also be encouraged to carry out researches as a group on a longer-term basis.

4. CONCLUSIONS

The Japanese Team and the authorities concerned of the Government of the Republic of Kenya reached the following understandings for the Joint Evaluation after a series of meetings and discussions.

4-1 Results of Evaluation

The project has been making efforts to complete the consolidation of the basis for undergraduate education and to reform the university management systems during three years' follow-up period since April 1997. In general, the project has been progressing as a result of mutual efforts and cooperation by the two sides.

Japanese technical cooperation on undergraduate programme has been continuing for ten years. The project purpose is to produce students with sufficient knowledge and technical skills required in the fields of agriculture and technology at JKUAT, which is evaluated to have achieved on the whole.

The overall goal of the project is that the graduates of JKUAT contribute to promotion of agricultural and industrial development in Kenya. Although quite a long time is required for proper assessment of the achievement on this point, the high reputation for the graduates can show that the first step toward the overall goal of the project has already been taken.

Further efforts are required to improve the contents and quality of education and research, the university management systems, the financial condition and the like. However, the basis of the sustainability as an institution of higher education has been established.

4-2 Lessons Learnt

Following lessons are derived from the experiences through the Project.

- 1) Japanese technical cooperation for JKUAT, which was originally the project of diploma programme, has been continuing for a long time of twenty years. Although JKUAT is the youngest institution of higher education in Kenya, both the undergraduate course and the diploma course have enjoyed high reputation from the industry, the society and students.

The main reason of this consists in JKUAT's unique educational policy, which attaches importance to actual social needs and contribution to the society.

2) The technical cooperation concerned with improvement of the management systems and vitalization of income generating activities will improve the project's sustainability.

4-3 Future Prospects

JKUAT is expected to maintain its unique practice-oriented educational policy and to advance further as an institution of higher education, which greatly contributes development of Africa as well as Kenya.

In October 1998, the idea of establishment of the "Bases for African Human Capacity Building" was addressed in TICAD-II and JKUAT was suggested as the first Base. The Base aims at solving various problems concerned with development of African societies by practice-oriented research, experimental field tests, training and information exchange. As this idea is consistent with the way that JKUAT should advance, JKUAT is strongly expected to serve as the Base. JKUAT, however, has to complete the management reform and strengthen locally applicable research activities in order to properly fulfill the new mission.



Project Design Matrix -The Jomo Kenyatta University of Agriculture and Technology Project (Undergraduate Programme)

Duration: April 19, 1997 - April, 18, 2000

Implementing Agency in Japan: JICA

Implementing Agency in Kenya: Jomo Kenyatta University of Agriculture and Technology (JKUAT)

Country: The Republic of Kenya

Target Area: Kenya

February 2000

Overall Goal	Indicators	Means of Verification	Important Assumptions
<p>Overall Goal The graduates of JKUAT contribute to promotion of agricultural and industrial development in Kenya.</p>	<p>1-1 Evaluation of the graduates by their employers/bosses. (Customer satisfaction into JKUAT graduates)</p> <p>1-2 Number of graduates who work in the fields of agriculture and technology in Kenya.</p>	<p>Results of the questionnaire and/or interview to the companies/government agencies which the graduates work for.</p>	<p>Kenyan Governmental policy on promotion of higher education in the fields of agriculture and technology does not recede from the level at the time of the project planning.</p>
<p>Project Purpose Students with sufficient knowledge and skills required in the fields of agriculture and technology graduate from the seven designated departments at JKUAT.</p>	<p>1-1 Number and performance of graduates from seven departments</p> <p>1-2 The employment rate of graduates</p>	<p>1-1 Graduation record of JKUAT / Examination results</p> <p>1-2 Results of the survey by the JKUAT / Graduation record of JKUAT</p>	<p>a. Graduates of JKUAT continues to work for the Kenyan industry / government.</p> <p>b. Demands of the industry / government concerned for the university graduates do not decrease compared with that at the time of project planning.</p>
<p>Outputs</p> <p>1. Management system of the JKUAT is improved.</p> <p>2. Theoretical and practical higher education to undergraduate students is provided.</p> <p>3. Quality of academic staff is improved.</p> <p>4. The facilities and equipment necessary for degree courses and research activities are improved.</p> <p>5. Research is conducted.</p>	<p>1-1 Review annual plan and budget plan</p> <p>1-2 Situation of financial management by computerizing</p> <p>2-1 Number of courses conducted</p> <p>2-2 Number of graduates</p> <p>2-3 Preparation of syllabi and curricula</p> <p>3-1 Increase of academic staff with higher degree in each department</p> <p>3-2 Decrease of main subjects covered by Japanese experts</p> <p>3-3 Progress of teaching competence through guidance and advice from experts</p> <p>4-1 Sufficiency of equipment</p> <p>4-2 Maintenance condition of machinery and equipment</p> <p>5-1 Number of research reports</p> <p>5-2 Number of publication and presentation</p> <p>5-3 Number of attendance toward academic activities (seminars and conferences)</p> <p>5-4 Appropriateness of selected topics of the researches conducted</p>	<p>1-1 Annual revenue plan, annual activities and budget plan</p> <p>1-2 Progress reports of financial management by computerizing</p> <p>2-1 Record of the University</p> <p>2-2 Record of the University</p> <p>2-3 Syllabi and curricula</p> <p>3-1 Compiled information and staff development plan by the university</p> <p>3-2 Compiled information by the university</p> <p>3-3 Questionnaire & Interview with C/Ps and experts</p> <p>4-1 List of equipment inventory</p> <p>4-2 Maintenance records</p> <p>5-1 Project record / academic journals</p> <p>5-2 Project record / academic journals</p> <p>5-3 Project record / academic journals</p> <p>5-4 Record of interview with academic staff</p>	<p>a. Most of the trained academic staff continue to work for JKUAT.</p>
<p>Activities</p> <p>1-1. Making an annual revenue plan, annual activities and budget plan</p> <p>1-2. Arrange and allocate of funds to specific departments which is efficiently disbursed</p> <p>1-3. Supervise the activities and budgetary operations (hold committee and meeting)</p> <p>1-4. Computerizing Finance Department</p> <p>1-5. Confirming and evaluate results of the activities</p> <p>2-1. Teaching programmes of undergraduate courses are implemented without delay.</p> <p>2-2. Kenyan academic staff covers lecture.</p> <p>2-3. Kenyan academic staff advise on research and thesis to students.</p> <p>2-4. Prepare and revise syllabi and curricula.</p> <p>3-1. The university continues staff development and maintain optimum numbers of staff</p> <p>3-2. Implement the Third-Country Group and In-Country Training Programme</p> <p>4-1. The provided equipment are utilized</p> <p>4-2. The provided equipment are maintained.</p> <p>5-1. Select appropriate research subjects</p> <p>5-2. Conduct research</p> <p>5-3. Produce reports</p> <p>5-4. Feed back to lectures / exercises</p>	<p>Inputs</p> <p>Japanese side</p> <p>Long-term experts; Japanese team leader; Project coordinator; Horticulture Agricultural Engineering Food Science and Postharvest Technology Civil Engineering Architecture Mechanical Engineering Electrical and Electronics Engineering Supporting Fields (as necessary)</p> <p>Short-term experts (as necessary);</p> <p>Training of counterparts in Japan;</p> <p>Equipment for education / research;</p> <p>Local cost</p>	<p>Kenyan side</p> <p>Project (University) staff Vice Chancellor Deputy Vice Chancellor Academic staff Horticulture Agricultural Engineering Food Science and Postharvest Technology Civil Engineering Architecture Mechanical Engineering Electrical and Electronics Engineering Subordinate staff</p> <p>School Buildings / Office space for Japanese experts Pilot Farm / Equipment for education / research</p> <p>Local operational cost</p>	<p>a. Most of the assigned academic staff continue to teach at JKUAT.</p> <p>b. Students' movement does not hamper implementations of the project activities.</p> <p>c. Teaching staff do not go on a strike so much as to deteriorate the project activities.</p> <p>d. Number of academic staff holding higher degrees (M.Sc., Ph.D.) increases with Mondusko and other degree programmes.</p> <p>Preconditions</p> <p>a. Sufficient number of high school graduates with appropriate knowledge are enrolled in JKUAT.</p>

Tentative Schedule of Implementation

Item	Year	1997	1998	1999	2000
Terms of Cooperation		April 19			April 18
Kenyan Side					
1. Construction of Faculty of Science Complex		_____	_____	_____	_____
2. Utilization of Income Generation Units		_____	_____	_____	_____
3. Promotion of Research Activities		_____	_____	_____	_____
4. Decentralized Management and Appropriate Disbursement of Budgets		_____	_____	_____	_____
5. Recruitment and Retention of Qualified Staff		_____	_____	_____	_____
6. Dispatch of Counterparts		_____	_____	_____	_____
7. Training of Staff		_____	_____	_____	_____
8. Provision of Equipment		_____	_____	_____	_____

a) This tentative schedule is prepared on assumption that the necessary budget will be allocated.

b) This tentative schedule is subject to change within the scope of the R/D, if it necessary arises.

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Tentative Schedule of Implementation

Item	Year	1997	1998	1999	2000
Terms of Cooperation		April 19			April 18
Japanese Side					
1. Dispatch of Experts					
1-1. Long-term Experts					
(1) Team Leader					
(2) Coordinator					
(3) Experts on					
- Horticulture					
- Food Science and Postharvest Technology					
- Agricultural Engineering					
- Civil Engineering					
- Architecture					
-Mechanical Engineering					
-Electrical and Electronics Engineering					
1-2.Short-term Experts (As Necessary arises)					
2. Provision of Equipment					
3. Training of Kenyan Personnel					

Annex 3

A chieivement of the Implementation Plan

Narrative Summary	Indicators	Achievements (as of February 2000)
<Overall Goal> The graduates of JKUAT contribute to promotion of agricultural and industrial development in Kenya.	1-1. Evaluation of the graduates by their employers/bosses. (Customer satisfaction into JKUAT graduates) 1-2. Number of graduates who work in the fields of agriculture and technology in Kenya.	It is premature to evaluate.
<Project Purpose> Students with sufficient knowledge and skills required in the fields of agriculture and technology graduate from the seven designated departments at JKUAT.	1-1. Number and performance of graduates from seven Departments 1-2. The employment rate of graduates	1-1 Performance of graduates *1(A.E) (F.P) (A) (M.E) (C.E) (H) (E.E) 1997: 2.08 2.87 2.625 2.63 N/A 2.46 2.6*2 1998: 2.26 2.76 2.44 2.63 N/A 2.49 2.6 1999: 2.21 2.78 2.61 2.86 N/A 2.34 2.76 1-2. Employment rate of graduates (A.E) (F.P) (A) (M.E) (C.E) (H) (E.E) 1997: 65% 67% 88% 83% 85% 79% 86% 1998: 26% N/A N/A 54% 80% 80% 74%
<Outputs>		
1. Management system of the Project is improved.	1-1. Review annual plan and budget plan 1-2. Situation of financial management by computerizing	1-1. In progress 1-2. In progress
2. Theoretical and practical higher education to undergraduate students are provided.	2-1. Number of courses conducted 2-2. Number of graduates 2-3. Preparation of syllabi and curricula	2-1. (A.E) 63 (F.P) 78 (A) 96 (M.E) 87 (C.E) 80 (H) 68 (E.E) 58 2-2. The number of graduates (1997-1999) (cf. Pass rate during 97-99) (A.E) 26 -27 - 24 (100%-100%-94%) (F.P) 15 -21- 23 (not written) (A) 16- 17 -18 (97-95% 98-91%) (M.E) 27-32-21 (97-100% 99-89%) (C.E) not written (H) 35-39-32 (100%-99%-98.6%) (E.E) 29-18-25 (99%-97%-97%) 2-3. Done and Revised
3. Quality of academic staff is improved.	3-1. Increase of academic staff with higher degree in each department 3-2. Decrease of main subjects covered by Japanese experts	3-1. The number of Ph.D, Msc, Bsc, HND as following: (A.E) (F.P) (A) (M.E) (C.E) (H) (E.E) Ph.D: 13 9 3 6 9 7 5 Msc: 8 5 14 11 16 12(5) 17(5) Bsc: (2) 4 4 5 2 N/A 4 (3) HND: N/A/N/A 1 N/A 1 N/A N/A *() means the number of academic staffs on leave. 3-2. Almost subjects were covered by Kenyan staff. cf. Current number/ideal number of academic staff *3 (A.E) (F.P) (A) (M.E) (C.E) (H) (E.E) 23/35 18/30 23/30 21/49 32/55 20/43 26/41

	3-3. Progress of teaching competence through guidance and advice from experts	3-3. Successfully done in each department
4. The facilities and equipment necessary for degree courses and research activities are improved.	4-1 Sufficiency of equipment 4-2 Maintenance condition of machinery and equipment	4-1. Equipment fully utilized 4-2. Most machinery well maintained
5. Research is conducted.	5-1 Number of research reports 5-2 Number of publication and presentation 5-3. Number of attendance toward academic activities (seminars and conferences) 5-4 Appropriateness of selected topics of the researches conducted	5-1 <research reports> (A.E)31(3years:19)(FP)54(A)0(M.E)21 (C.E)21 (H) 33(14) (E.E)14(5) 5-2.<publication> (A.E) (FP)(A)(M.E) (C.E) (H) (E.E) <u>45(8) 68(16) 6 69(3) 29(14) 62(20) 61(25)</u> <paper presented in conference/seminar> (A.E) (FP) (A) (M.E) (C.E) (H) (E.E) <u>96(24) 32(16) 15 15(8) 1 20(0) 61(21)</u> ※Conference/seminar organized by Department(majority funded by JICA)as below: (A.E) (FP)(A) (M.E) (C.E) (H) (E.E) <u>19(6) 16, 14(0) 5(3) 8(6) 4(2) 15(3)</u> 5-3. Attendance toward academic activities as following : (A.E) (FP)(A) (M.E) (C.E) (H) (E.E) <u>49(7) 75(42) 2 36(19) 15(6) 52(13) 64(25)</u> 5-4. Topics of the researches conducted was fairly selected.

※1: M.E(Mechanical Engineering), A.E(Agricultural Engineering), F.H(Food science and Postharvest), C.E(Civil Engineering),H(Horticulture),A(Architecture),E.E(Electrical and Electronic)

※2: Method of the calculation (Data resource: Compiled information by Kenyan side [Statistics of students])

The average score of performance calculated as below :

: Multiply the holder of A to Pass by the point from 4 to 1 accordance to grade and then divide the score with the total number of students who passed the exam.

※3: Method of the calculation (Data resource: Compiled information [Established number of academic staff by designation and number of positions filled])

: The number of in -post academic staffs in 1999/2000 and the ideal number

AN ACTION PLAN FOR THE EFFECTIVE PLANNING AND
MANAGEMENT OF JKUAT: BY PROF. R. W. MICHIEKA,
VICE CHANCELLOR

1.0 Introduction and Mission of the University

The Jomo Kenyatta University of Agriculture and Technology was founded in 1981 as a middle level college awarding diplomas in Agricultural Engineering, Food Technology, Horticulture, Civil, Mechanical and Electrical Engineering. In 1988, the then Jomo Kenyatta College became a constituent College of Kenyatta University, thereby changing its name to the Jomo Kenyatta University College of Agriculture and Technology (JKUCAT). Following this development, JKUCAT started offering degree courses in agriculture, science and engineering. In 1994, the University College was elevated to a full-fledged University through an Act of Parliament. The 208 hectares of land on which the institution stands were donated by the founding father of the Kenyan Nation, the late Mzee Jomo Kenyatta.

Mission of the University

The mission of the university is clearly spelt out in the institution's statutes as:

(a) To provide directly or indirectly or in collaboration with other institutions of higher learning, facilities for university education (including agriculture, scientific, cultural, technological and professional) and integration of teaching, research and effective application of knowledge and skills to the life, work and welfare of citizens of Kenya.

(b) To participate in the discovery, transmission and preservation and enhancement of knowledge and stimulate the intellectual participation of students in the economic, technological, agricultural professional and cultural development of Kenya.

(c) To play an effective role in the development of agriculture and technology in conjunction with the industry and to provide extension services so as to contribute to the social and economical development of Kenya.



(d) Subject to the Universities Act to co-operate with the Government in the planned development of university education and in particular to examine and approve proposals for new faculties, new departments, new degree courses or new subjects of study proposed to it by any constituent college or other post-secondary institution; to determine who may teach, what may be taught, how it may be taught and when it may be taught at the university.

To realise these objectives the planning and management of JKUAT should incessantly be reviewed in order to achieve the institutions objectives of providing quality education of practical relevance to the present and future needs of Kenya. The university is currently working on the annual plan and will soon computerise its accounting and financial operations. It should also be useful at this point to appropriately position them in content of the overall planning and management mechanism in order to let the staff understand the importance of them and make immediate actions necessary for successful planning and implementation.

2.0 Objectives

The immediate objectives of this action plan are:

- (1) To strengthen the planning and management of the University for sustainable development after the termination of Kenya-Japan cooperation in April 2000.
- (2) To upgrade capabilities of both the top and the middle management personnel by clarifying job descriptions and responsibilities to enhance the execution of university plans and activities.
- (3) To improve the financial and accounting management system through periodical compilation and adjustment of the university budget within budgetary limitations.

3.0 Concept of the Management

- (1) The fundamental principle of the management of the organisation is to let its members steadily execute activities of the organisation in accordance with its annual plan. To ensure this process, an annual plan is needed. It is composed of two parts; that is, a management guideline which is a policy of the organisation for all aspects of its activities, and the

departmental plans which cover activities of respective departments and units of the organisation. The departmental plans should be prepared in conformity with the management guideline drafted by the organisation's top management in the beginning of each fiscal year.

(2) The gist of the Management is for the top and the middle management to plan, implement and control its activities which are conducted by the members of the organisation. To be more specific, contents of the Management action include :

- a. Making an annual revenue plan
- b. Making draft annual activities and budget plan
- c. Adjusting and harmonizing the contents of the draft annual activities and budget plan.
- d. Finalising the annual activities and budget plan
- e. Implementing the activities in conformity with the annual activities and budget plan.
- f. Supervising the activities and budgetary operations.
- g. Confirming and evaluating results of the activities.

4.0 JKUAT Annual Plan

4. (i) Annual Revenue and Budget Plan

The Finance Office will:

- a. Summarize the past five years performance of revenue raising activities which should cover such items as sources, time or release, amounts and nature of funds, in order to ensure future fund-raising.
- b. Make a draft annual revenue plan based on the above-mentioned sources, by taking all factors into account, including borrowed money, interests paid and received, actual governmental grants and so on (see Note. 1)

c. Summarize the past five years budgetary performance which should cover department/unit and item details of expenditure, in order to formulate workable budgetary plans.

d. Make a draft annual budgetary plan for all the departments and units (see Note 2)

e. Submit the following documents to Council and Management Board for approval.

(a) the past five years performance of revenue raising

(b) the draft annual revenue plan

(c) the past five years budgetary performance

(d) the draft annual budgetary plan for all the departments and units.

4. (ii) Principles of Financial Operations

4. (iii) - 1 Division of Revenue

The revenue of the above-mentioned draft annual revenue plan (4-1,e(b) is, in principle, to be divided into the following two categories.

(1) Revenue A

Revenue A is to be allocated to cover the draft departmental detailed plan for annual activities and budget (3-5, (1) e).

(2) Revenue B

The revenue B is to be set aside both for the draft departmental detailed plan for activities and budget which are to be conducted for two or more years including the fiscal year under review (3-5,(1)f), and for contingency fund.

4.-(ii)-2 Division of Budget

The budget of the draft annual budgetary plan for all the departments and units (3-1, e(d) is, in principle, to be divided into the following two categories:

(1) Administrative Budget

The administrative budget is allocated to cover such administrative and management costs etc.

(2) Teaching and Research Budget

The teaching and research budget is allocated to cover such payment of lecturers, and conduct research.

4-3. Management Guideline

The Management Guideline for both activities and budget of the university (MG) is formulated by the Vice Chancellor in the beginning of each fiscal year, based upon the above-mentioned annual revenue and budget plan.

4-4 Annual Activities and Budget Plan

(1) Departmental Detailed Plans for Annual Activities and Budget (DDP)

Each department or unit will:

- a. Make a draft detailed plan for its annual activities and budget in accordance with MG. Contents of activities, timing of implementation, persons in charge, estimated costs and so on should be listed for each item of activities.
- b. When necessary, make a draft detailed plan for its activities and budget which are to be conducted for two or more years including the fiscal year under review.
- c. Submit the draft plans through the DVC(APD) for Management's approval.

(2) Departmental Annual Activities and Budget Plans (DABP)

Each department or unit will:

a. Make a draft annual activities and budget plan based upon DDP. Major activities of the department or unit should be described in the sequence of time.

b. When necessary, make a draft activities and budget plan which are to be conducted for two or more years including the fiscal year under review.

c. Submit the draft plans through the DVC (APD) for Management's approval.

3. Instructions for preparations of DDP and DABP

a. Draft DDP and DABP should clearly and quantitatively be described, so that they are easily understood by the top management.

b. Their contents should be adjusted and harmonized in terms of activities, quantities of work involved, time of implementation, number of persons involved, their capabilities, estimated costs and so on

4-5 Annual Plan Meeting

(1) Annual Plan Meeting is convened by the Vice Chancellor to finalise the JKUAT Annual Plan. The following documents are to be submitted to the meeting by DVCs.

a) the past five years performance of revenue raising (Finance Office)

b) the draft annual revenue plan (Finance Office)

c) the past five years budgetary performance (Finance Office)

d) the draft annual budgetary plan for all the departments and units (Finance Office)

e) the draft departmental detailed plan for annual activities and budget (Departments and Units)

- f) when necessary, the draft departmental detailed plan for activities and budget which are to be conducted for two or more years including the fiscal year under review. (Departments and Units)
 - g) the draft departmental annual activities and budget plan (Departments and Units)
 - h) when necessary, the draft departmental activities and budget plan which are to be conducted for two or more years including the fiscal year under review (Departments and Units)
- (2) JKUAT Annual Plan is to be distributed to all the departments and units.

5.0 Implementation of the Annual Plan

Each department or unit will:

- (1) Implement its activities according to the Annual Plan. Budgetary limitations should be observed.
- (2) Report to DVC in charge, when any delay of work or excess of budget is discovered.
- (3) Consult with DVC in charge, when any changes in conditions concerned or poor planning.

6.0 Control of Implementation of Annual Plan

- (1) The control subcommittee is to be held once a month by each department or unit to check the progress of implementation of its Annual Plan and coordinate matters arising from the execution of activities. The results of the control subcommittee are to be reported to the control committee.
- (2) The control committee is to be convened once in three months by the Vice Chancellor to check the progress of implementation of the whole Annual Plan. When delay of activities, unsuccessful implementation of the

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NOTE 2. Departments and units to be entered in the draft budgetary plan:

1. Office of the Vice Chancellor
2. Office of DVC/AA
3. Academic Affairs Section
4. Library
5. Student Welfare Department
6. Catering and Accommodation Department
7. Office of DVC/APD
8. Administration Department
9. Finance Department
10. Hospital
11. Office of DVC/RPE
12. Farm Department
13. IGU Department
14. Engineering Workshop Department
15. Bookshop
16. Catering Service Centre
17. Office of Dean/Faculty of Agriculture
18. Department of Horticulture
19. Department of Agricultural Engineering
20. Department of Food Science and Postharvest Technology
21. Office of Dean/Faculty of Engineering
22. Department of Civil Engineering
23. Department of Architecture
24. Department of Mechanical Engineering
25. Department of Electrical and Electronic Engineering
26. Office of Dean/Faculty of Science
27. Department of Biochemistry
28. Department of Mathematics and Computer Science
29. Department of Chemistry
30. Department of Botany
31. Department of Zoology
32. Department of Physics
33. Institute of Human Resources Development
34. Regional Centre for Enterprise Development
35. Biotechnology Centre

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