

AGENCY FOR INTERNATIONAL DEVELOPMENT
 WASHINGTON, D. C. 20523
BIBLIOGRAPHIC INPUT SHEET

FOR AID USE ONLY ARDA
Batch 78

1. SUBJECT CLASSIFICATION
 A. PRIMARY
Food production and nutrition AE10-0000-G140
 B. SECONDARY
Agricultural economics—Kenya

2. TITLE AND SUBTITLE
Professional and subprofessional agricultural manpower in Kenya; demand, supply, education and utilization: Appendices A thru F and H

3. AUTHOR(S)
Hecht, Kurt; Simmons, R.J.; Smith, W.T.; West, Howard; Brown, Albert

4. DOCUMENT DATE
1978

5. NUMBER OF PAGES
152p, 144p.

6. ARC NUMBER
ARC

7. REFERENCE ORGANIZATION NAME AND ADDRESS
ATAC

8. SUPPLEMENTARY NOTES (*Sponsoring Organization, Publishers, Availability*)
(Main work, 180p.: PN-AAF-265; append. G 1 & G 2, 192p.: PN-AAF-267)

9. ABSTRACT

This document contains the appendices A thru F and H to the report "Professional and Subprofessional Agricultural Manpower in Kenya (Demand, Supply, Education and Utilization)". The report estimated the requirements for academically trained agricultural manpower and for development of the educational system to fill these needs. These appendices include: terms of reference for a study of professional and sub-professional agricultural manpower, the questionnaire used for the agricultural manpower supply and demand survey, details of the sector coverage, a discussion of the three types of rates determined (retirement rates, outflow rates, and manpower growth rates), sample expansion to totals, an explanation of computer calculations, and a list of documents, publications and reference material reviewed.

10. CONTROL NUMBER PN-AAF-266	11. PRICE OF DOCUMENT
12. DESCRIPTORS Data Education Kenya Manpower Manpower needs	13. PROJECT NUMBER
	14. CONTRACT NUMBER AID/afr-C-1142 GTS
	15. TYPE OF DOCUMENT
13. PROJECT NUMBER Manpower utilization Personnel development Surveys Utilization	

REPORT

Appendices
A thru F & H

CR-A-210

Professional and Subprofessional Agricultural Manpower in Kenya (Demand, Supply, Education and Utilization)

Submitted to:

**U.S. AID Mission to Kenya
and
Government of Kenya**

**Prepared as
Work Order 52 of AID/afr-C-1142**

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March 1978



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TERMS OF REFERENCE

Terms of Reference

for a study of

Professional and Sub-Professional Agricultural Manpower

I. Background

In 1967, an Agricultural Education Commission, led by J. R. Weir, examined documents and working papers and conducted hearings which established agricultural subprofessional (certificate and diploma) and professional (graduate and post graduate) staffing levels, projected demand for similar staff through 1980, and recommended expanded educational facilities to meet this demand. Most of the Weir Commission recommendations were implemented, with the result that, until recently, Kenya's agricultural education system has been able to supply most of the Nation's subprofessional staff and an increasing proportion of its professional requirements.

Despite excellent progress made in this agricultural education system, events have overtaken the Weir Commission's projections and these no longer serve as an adequate basis for estimating demand for staff trained at the certificate level and above. The primary reasons which (in retrospect) one may adduce for this discrepancy are: (1) inadequate information about private sector demand, (2) a conservative orientation which failed to consider fully the implications of new programs and institutions, and (3) the decision by the Ministry of Agriculture to improve staff competence by replacing the JAA's (who have no formal agricultural training) with Agricultural Assistants.

The Ministry of Agriculture is currently primarily responsible for training agricultural manpower at the certificate level in the Embu, Bukura and AHITI institutes and for supporting Egerton College (diploma level) through fellowship sponsorship of most of its students. Although the graduates of these institutions usually start work in the Ministry, they also staff the parastatal agencies and the private sector, usually after working sometime in the Ministry. These institutions thus have tremendous influence on the supply of educated manpower to the entire agricultural sector. The ability of the Ministry to plan for, justify and develop a supply capability commensurate with expected demand over the next decade requires an understanding of the nature and magnitude of that demand.

The Faculties of Agriculture and Veterinary Science of the University of Nairobi, together with the Faculty of Agricultural Sciences of Makerere (Uganda) and other foreign institutions have provided most of the professional manpower available to Kenya over the past decade. The University of Nairobi

has also added postgraduates training in several subjects in response to evident need, and this trend is expected to continue. These universities, like the Institutes of the Ministry and Egerton College, need data on prospective demand for professional manpower so that they, too, may expand and redirect their efforts to meet expected requirements.

II. Purpose

To conduct a study of the supply and demand (number, characteristics and distribution) existing in 1977 for specially trained professional and subprofessional staff in the agricultural sector, and estimate their projected growth by 1980, 1985 and 1990. This information is needed in order to anticipate the need for and the financial implications of expansion and/or redirection of existing training facilities or the creation of new ones.

III. Areas for Study

A. Identification of User and Supplier Agencies

Lists will be prepared of organizations in the public and private sectors who employ and/or train personnel in agricultural specializations at the certificate level and above. These will include:

1. User Agencies

a. Public Sector

- Ministries of Agriculture, Education, Cooperative Development, Lands and Settlement, Labor (National Youth Service) and Home Affairs (Prisons)
- Statutory commodity boards and other parastatal organizations, public service corporations
- Universities, colleges and institutes

b. Private Sector

- Cooperative and associations
- Large scale agri-business and agro-industry
- Independent professionals

Note: It would not be cost effective to attempt to identify all possible users. However, this list should account for 95 percent or more of the total specialized staff in the agricultural sector.

2. Supplier Agencies

a. Public Sector

- Nairobi University and Egerton College
- Institute of Embu, Bukura, AHITI.
- Foreign Institutions (On fellowships processed by Government of Kenya)

b. Private Sector

- National Christian Council of Kenya

B. Existing Staff and Unsatisfied Demand

A simple questionnaire and instructions will be sent to each user agency requesting a tabulation of all professional and sub-professional personnel by organizational location, academic attainment, salary, grade, age, and years of experience, and the previous year's turnover. Each agency will be requested to supply the number of established but unfilled vacancies, by academic requirement. This information will be collected and discussed at a subsequent interview (see below). The collection of this information will establish the current numbers and distribution of agricultural staff and the unmet demand.

C. Projected Demand

The head of each user agency (or significant subunit thereof) will be interviewed to obtain interpretive information, and to ascertain the expectations for employing additional or differently trained staff in 1980, 1985 and 1990. During this interview, information will be collected on constraints which may limit expectations, e.g., budget position limitation, too few candidates. The analysis of this material should result in a reasoned assessment of demand in 1980, 1985 and 1990. It will hopefully also establish a statistical base from which a sample survey may be drawn from time to time to adjust these estimates.

D. Existing and Projected Supply

Each supplier agency will be surveyed to determine current enrollment and output, unused capacity (and its cause), and the expected wastage. Approved plans for nearterm expansion and their expected impact will be examined, as will possible ways for handling increased enrollment and their financial implications. These data will establish the immediately available supply and that which can be achieved (up to rated capacity, including approved development plans) and the costs of achieving rated capacity.

E. Personnel Utilization

The efficiency of preservice training and the effectiveness with which professional and subprofessional personnel are used are believed to be affected primarily by three things: (1) the relevancy of their educational qualifications to the post to which they are assigned; (2) the adequacy of logistic and administrative support with which they are provided; and (3) the adequacy of their initial orientation and supervision and the subsequent course of inservice training and supervision. Each of these areas will be examined in the following manner:

(1) **Relevance of Education Qualification to the Position.** This will consist of a comparison of educational requirements and job descriptions of a representative sampling of Ministry of Agriculture positions, and discussions with supervisors of this relationship. A distinction will be made between a requirement for a given level of education per se and a requirement for agricultural specialization at the level. This distinction is necessary in order to determine whether the training might be supplied from another source than the agricultural institutions which are the primary focus of this study.

(2) **Adequacy of Logistic Support.** An analysis will be made of logistic supporting services for professional and subprofessional personnel in various types of positions. This will consist of a budget review of transportation, travelling and accommodation allowances, fringe benefits, and other non-personnel costs which affect staff performance and morale. Discussions with field staff and their supervisors will help to interpret these figures and their impact. The agility of the procedures used for procurement and other authorizations which affect the efficiency of staff performance will also be examined.

(3) **Adequacy of Supervision.** Initial inservice orientation and supervisory guidance have a notable impact on the initial effectiveness and subsequent performance of recently inducted staff. This study will concentrate on the way in which these elements are handled in a sampling of District Offices, relating these practices to policy guidance from Provisional and Headquarters Offices. A tabulation of inservice training over the prior years will help determine the adequacy of this element.

F. Recommendations

The anticipated supply in 1977, 1980, 1985 and 1990 will be arrayed against the expected demand. Shortfalls will be noted and alternative methods for meeting these shortfalls will be considered. These methods may include expanding existing institutions, creating new institutions, improving efficiency, and curtailing employment. The developmental implications of each approach will be reviewed, recommendations will be made and an estimate made of the costs of each.

Terms of Reference

for a study of

AGRICULTURAL EDUCATION AND TRAINING IN KENYA

I BACKGROUND

The Ministry of Agriculture is a central institution in Kenyan agricultural education. As a user agency, it employs most of the professional and subprofessional output of the university faculties, colleges and institutes in Kenya. As an employer, it sponsors an in-service training program which includes specialized schools, seminars, and fellowships to higher education institutions in Kenya and abroad. As a producer, it operates three institutes which provide the bulk of certificate level specialists, and, through the Directorate of Personnel and Management, sponsors a large number of students at Egerton College. The Ministry also deals formally with adult education through some thirty Farmer Training Centres and informally through a widespread extension service.

The pre-service agricultural education system in Kenya consists of the following institutions:

Graduate and Postgraduate Level

- Faculty of Agriculture, University of Nairobi
- Faculty of Veterinary Sciences, University of Nairobi

Diploma Level

- Egerton College

Certificate Level

- Embu Institute of Agriculture
- Bukura Institute of Agriculture
- Animal Health and Industry Training Institute (AHITI)

Special In-Service Training Schools*

- Naivasha Dairy Training Centre
- Athi River Meat Training Centre

*The Ministry of Agriculture also sponsors in-service seminars and special training and sponsors staff improvement courses through fellowships to Kenyan and international education institutions.

Farmer Training Centres

- Large Scale (2)
- Small Scale (30)

II PURPOSE

To examine the adequacy (quality, capability and relevance) of Kenya's agricultural education system to meet current and projected needs, to identify problem areas or weaknesses, and to suggest possible remedial action. The financial implications of these remedies will be assessed where suggested action requires significant investment or recurrent expenditures.

The study will deal with the following areas:

- (1) Preservice agricultural education at the certificate level and above.
- (2) In-service agricultural education sponsored by the Ministry of Agriculture, including the Athi River and Naivasha Centres, formal in-country staff development programs, and the international scholarship program.
- (3) The Farmer Training Centre Program.

The study will examine the relationships of these programs to the field extension program, in order to relate the education and training output to the needs of the service, but will not evaluate the field programs themselves.

III AREAS FOR STUDY

A. Pre-Service Training

1. Assessment of User Requirements

This section will concentrate on user expectations and their assessment of the ability of recent graduates to meet these expectations. This effort will focus on the sponsoring agencies, primarily on the Ministry of Agriculture at the District level, where the vast majority of students begin their employment.

This part of the study will be conducted in collaboration with the Manpower Survey, with an education questionnaire and subsequent interview being handled by the same people, under guidance from the education specialists. It is the intent of this research to determine the users' perceptions of how well their new employees have been prepared for their assignment by the educational system. Discussions of these perceptions

with the various faculties may be useful in dispelling unwarranted user expectations as well as in correcting real deficiencies.

2. Capability of Educational Institutions

This part of the study will summarize the resources of the various institutions in quantitative and qualitative terms (staff, physical facilities, capital equipment, budget); their operations and output; plans for future development and the status of those plans. It will also examine possible avenues for increasing capacity, for example, through multiple use of facilities or selective expansion of a limiting facility.

3. Adequacy and Relevance of the Educational Function

The quality of each educational institution will be examined in light of its own policy and intended performance, and in consideration of the perceived interests of the users of their output. This is admittedly a subjective area which cannot be evaluated directly with any degree of certainty. The review will focus therefore on curriculum, faculty and institutional management. Each of these areas will be reviewed by education specialists whose judgment has been formed by many years of reviews of this nature, in collaboration with a Kenyan specialist of similar broad experience.

The curriculum of each institution will be reviewed to determine its relevance to the students' prospective employment and its consistency with current and prospective training goals. The extent and type of laboratory instruction and other teaching methods will also be considered as it relates to future employment probabilities.

The academic preparation and experience of the faculties of the respective institutions will be examined as they relate to the subject matter which is taught and their influence on the way in which it is taught. This sensitive area will be treated only with the intervention of the Principal and Department Heads, and any information collected will be presented only by numbers and groups with no reference to any individual. All individual personnel information here and elsewhere in these studies will be kept entirely confidential.

The review of institutional management will focus on the efficiency with which resources are used, primarily the balance which is maintained among various resource components to establish an overall level of effectiveness.

4. Other Services

Educational institutions traditionally develop a coterie of services which they provide to non-educational institutions or the general public. Some of these are educational or quasi-education, e.g.,

libraries, audio-visual educational aids, specialized short courses and seminars. Others, e.g., diagnostic services, research, consultation, are not related so much to the education function as to the qualifications of the faculty. This part of the study will investigate and summarize the extent of these additional services and the source of their support. An attempt will be made to determine the degree of consonance or conflict with the primary educational function of the institution and of its importance to the user agency. The capacity of the educational institution to absorb additional functions of this nature will also be examined, considering the tradeoffs with its primary function.

B. In-Service Training

1. The Specialized Training Centres

The characteristics of the two Centres will be described in terms of their capability and adequacy for the specialized role which they play. The examination will be made in much the same manner as for the pre-service institutions, i.e., an examination of resources, curricula and methods, but in less depth because of the more limited nature of the Centres. Senior Specialists of the Ministry of Agriculture Meat Inspectorate and Animal Production Division will be asked to participate in this review and confirm the adequacy of the training output.

2. In-service Fellowship Program - National and International

The source, numbers, duration, location, intent and results of fellowships granted by the Ministry to develop public agricultural sector employees over the last five years will be summarized from Ministry of Agriculture records. The methods and policies used to select personnel and subjects for study will be described, together with the terms of the fellowship and the procedures used to manage them. Recommendations will deal with problems encountered and the desirability and feasibility of shifts in categories of training subjects, levels and personnel categories in order to complement pre-service training objectives, and fulfill the specialized needs of the sector. Particular attention will be directed to the capacity of Kenyan institutions and to their cost effectiveness in satisfying these training requirements.

C. Farmer Training Centres

The cost effectiveness as well as the methods of Farmer Training Centres have occasionally led to criticism. However, it may well be that these questions are related primarily to the management of individual Centres and the way that they are integrated into other community activities and training programs, rather than to the concept per se. The quality of teaching as well as mission and environment will vary from district to district. It is hoped that the study will be able to provide some data to help the Ministry decide on the most effective role for these institutions.

1. Program Description

Detailed cost and output data will be collected on the entire program from Ministry of Agriculture sources. This information will include staff, capital equipment, buildings, operating costs, type and duration of courses taught and number of students. Visits will be made to both of the Large Scale Farmer Training Centres and to approximately ten of the Small Scale Farmer Training Centres to establish the Centres' view of their mission and to ascertain problems which affect their operating efficiency.

2. Relations to Extension Program

Training Centre - Extension Program relationships will be probed in connection with the above visits. An attempt will be made to categorize the effectiveness of the different Training Centres and to relate the differences among them to various environmental factors as described by the DAO. Among these factors may be the role which the extension service assigns the FTC, the farming system of the community, the social coherence of the community, and other factors.

IV IMPLEMENTATION PLAN

A. Team Organization

The manpower requirements and utilization survey and the agricultural education study are closely related and will be carried out together. Under this coordinated approach, the work has been divided into six tasks (see below), to be carried out by four study units:

The Data Collection Unit will consist of three survey specialists provided by GRC/ATAC, who will themselves develop, administer and collate the results of a survey to be carried out among users at the District, Province and Headquarters levels. During the preparation stage, it will be necessary for this group to work closely with the Personnel Office of the Ministry in order to develop lists of characteristics of personnel by location such as those which are being prepared by Mr. Mureithi. They will also need to contact Personnel Offices of other user agencies for the same purpose. Their work would be greatly facilitated if the Ministry could assign a personnel officer who is familiar with the Kenya personnel system in the Ministry and in other agencies to work with them during the first two weeks of their tour.

The Manpower Unit should be headed by an economist provided by GRC/ATAC. It is highly desirable that he work throughout with a Ministry of Agriculture official who will have a direct and continuing concern with implementation of the results of the survey. This might be someone from either the Manpower Development Branch or the Planning Department.

The Education Unit will consist of two agricultural educators supplied by GRC/ATAC working continuously with two Kenyan educators. It is probable that this unit will break up into two subunits, one concentrating on preservice training and one on the inservice and farmer training. The latter unit will require augmentation on occasion by one or two senior staff members of the Department of Livestock Development for review of the Athi River and Naivasha Centres.

The Manpower Utilization Unit will consist of a public administration specialist provided by GRC/ATAC working with a senior Executive Officer of the Ministry whose familiarity with the administrative practice of the Government can facilitate both the interpretation of the intent of these practices and the development of recommendations which are consistent with this intent.

B. Task Scheduling

The schedules which follow are believed to be reasonable, based on experience on similar studies. However, they must be considered tentative and subject to some modification, compression or slippage to permit adjustment to unexpected conditions encountered in the execution of the work.

It is expected that the Data Collection Unit will arrive in Nairobi about two to three weeks before the principal investigators so that survey data will be available for the latter in time for analysis. These principal investigators will spend a week in Team Formation (orientation and scheduling activities) before entering a three-week period of intensive interpretive interviews. A week of additional analysis will be culminated by the combined team presenting orally its observations and tentative recommendations to Government of Kenya officials and obtaining the latter's initial reactions.

Specialist personnel will then return to the US where they will spend approximately three weeks in further analysis and editing of a draft final report which will be sent to the Ministry of Agriculture for distribution and review by the concerned agencies. About three weeks have been allowed for distribution and review, after which the three senior specialists will return to Kenya for a detailed review of the draft document. Any necessary corrections and essential additions will be incorporated in a final report.

Task I. Data Collection

This consists of a survey of all user agencies to establish:

- (1) current staffing and projected requirements by type and class of agriculturally trained personnel;
- (2) turnover of staff over the last year and causes to which it may be attributed;
- (3) user perceptions and expectations of the educational qualifications of recent graduates; and
- (4) in-service orientation and supervision provided recent employees.

A strenuous attempt will be made to identify all users, their current staff and turnover. Questionnaires related to perceptions and practices will be administered to a representative sample of employers, stratified by province and type of employer.

1. Preparation. A questionnaire designed to obtain this data will be prepared by team members in Washington, brought to Kenya and pretested in the first week (see Appendix - Task Scheduling Chart). During this same week, a detailed list will be prepared of public and private user agencies by geographic location (District, Province and Headquarters), together with data on personnel at each location compiled from central personnel files. A travel schedule and a sampling chart will be prepared.

2. Survey. Three interviewers will then visit the principal officer of each agency in approximately 33 Districts. Distant and sparsely populated districts, e.g., Lodwar, Marsabit, Wajir, Garissa, Lamu and Galole, will be canvassed by mail. The canvas will start in each District with the District Agricultural Officer, who will be asked to verify or add to the list of employers of professional and subprofessional personnel in his district. The surveyors will contact each employer to verify data on the lists which have been prepared, making such modifications as may be necessary and administering the questionnaire to the preselected sample. In the event that an employer cannot be contacted, the DAO will be asked to provide tentative data and obtain a completed personnel questionnaire from that employer to be mailed in.

3. Collation. The answers obtained from the questionnaires will be collated in three sets (manpower demand, educational qualifications, and personnel utilization) with stratification by type of employer, level of education and location. These data will be analyzed by the senior specialists in light of the conditioning information received by them in their interpretive interviews.

Task II. Team Formation

While data collection is still underway, other members of the team will be assembled in Nairobi. The first week of their residence will be spent in obtaining policy and program guidance, identifying sources of information, establishing rapport with their colleagues, elaborating an understanding of their respective tasks and roles, and preparing a detailed schedule of travel, interviews and analyses. It is expected that team members will receive an orientation by Ministry personnel on major policies bearing on or to be affected by the study results, the institutional organization of the agricultural sector, and the current relationships between education and employment in the public and private sector. Team members should also have the opportunity to meet the leadership of user agencies and to explore with them the sources of information which they will need.

Throughout the study, the team should have frequent access to a designated contact in the Ministry to help resolve any problems or issues which occur. The Task Scheduling Chart includes five scheduled meetings: (1) an initial orientation by the Ministry, (2) an introductory meeting with other agencies, (3) a progress report meeting with the Ministry, (4) a debriefing on observations and tentative recommendations with all agencies, and (5) a meeting with all agencies to discuss the draft final report.

Task III. Manpower Demand and Supply Analysis.

This task will be under the responsibility of an economist with experience in estimating manpower requirements for rural/agricultural development activities.

1. Interpretive Interviews. Following team formation, the specialist will conduct a series of interviews with directive personnel of the user agencies in the Western (Western, Nyanza), Rift, Central and Eastern (Eastern, Coast) part of the country. The purpose of these interviews will be to obtain opinions about the probability of upgrading entrance requirements in the future, the probability of new programs or significant alterations in methods which will affect demand, and the types of constraints which may prevent anticipated demand from becoming effective.

2. Analysis and Recommendations. The assembled manpower demand data from the initial survey will then be examined in light of the interpretive information. Drawing on this information, and the partial historic data available (e.g., from the Weir Report and Nairobi Budgets), and specifying the assumptions, demand will be forecast at high, expected and low levels in 1980, 1985, and 1990. This information will be compared with supplier information being assembled by the education specialists and utilization data from the utilization unit. Where shortfall is probable, suggestions will be made for its resolution, either through more effective utilization and/or increased training activity. These suggestions will be accompanied by an estimate of costs involved.

Task IV. Agricultural Education and Training.

This task will be under the responsibility of two agricultural educators with experience in the development of professional and subprofessional manpower for the purpose of agricultural improvement through research, extension and policy formation. Their joint responsibility will be to assess the capability and quality of preservice agricultural education and training at the graduate, diplomate and certificate level; the inservice training programs available through specialized schools of scholarships; and the farmer training provided by the Farmer Training Centres.

1. Interpretive Interviews. Like the economist, they will conduct a series of interviews with directive personnel of the user agencies in the main geographic locations to obtain basic information with which to interpret their observations. These interviews will be coupled with more detailed data collection, observation and interviews with the managers of each of the training facilities encountered. These will include specifically the Faculties of Agriculture and Veterinary Science of the University of Nairobi, Egerton College, the Embu, Bukura and AHITI Institutes, the Athi River and Naivasha Centre, and a selection of large scale and small scale Farmer Training Centres. Other public and private agricultural training institutes will be reviewed where encountered, but in less detail.

At each of the institutions, information will be collected on human, financial and material resources, current output and future plans for expansion. The adequacy of the curricula, the faculties and the teaching methods to fulfill user requirements will also be assessed. The relationships of these institutions to user agencies and the services they offer will be examined in terms of their own expectations and that of the agencies which they serve.

2. Analysis and Recommendations. As indicated under Task III, the education unit will contribute its knowledge to joint recommendations about future expansion or modification of existing institutions to meet demand. They will also draw up a set of recommendations related more particularly to educational improvement. Such recommendations may be directed to the educational system as a whole, to one or more types of institutions, or to a specific institution.

Task V. Manpower Utilization.

This task, which seeks to determine the effectiveness and efficiency of use of trained manpower, will be under the supervision of a public administration advisor. He will attempt to establish the validity of agricultural preservice training in relation to the job requirement; analyze the adequacy of support available for optimization of the performance of professional and subprofessional employees; and examine the adequacy of inservice orientation and training.

1. Interpretive Interviews. This unit will also perform interpretive interviews in a sample of districts in the Western-Rift and Central-East areas of Kenya, seeking to determine any inefficiency in the utilization of trained agricultural manpower and to what factors it may be attributed. Included in these interviews will be comparison of actual duties with job descriptions, examination of work records and training and orientation programs, and discussions with personnel and their supervisors about the frequency and duration of delays and their causes. Procedures or processes which might be the source of inefficiencies will be described to determine possible corrective action.

2. Analysis and Recommendations. The results of the interpretive interviews will be combined with data obtained by the data collection unit. Conclusions will be drawn about the overall utilization of trained personnel, and if possible about the utilization of major classes of professionals and subprofessionals. Any deficiencies encountered will be attributed to relevance of training to the job, adequacy of supporting services, or adequacy of orientation, training and supervision. Remedial action will be prescribed where necessary. An input will be made to the assumptions about manpower availability.

Task VI. Reporting.

This task includes the process of drafting, review, discussion and presentation of a final report. It is expected that team members will have completed much of the analysis and prepared a good part of the descriptive material and supporting quantitative data before their departure from Kenya. Their final meeting with the affected agencies, in which they present tentative conclusions and recommendations will provide reactions to these statements.

1. Preparation of Draft Final Report. Additional analysis, drafting and editing will take place in the U.S., both to refine the presentation and in review of the reaction to the tentative conclusions and recommendations. It is expected that this will take about three or four weeks, with a draft final available for distribution in Kenya within five or six weeks.

2. Review. The affected agencies should have approximately two weeks to review the draft final and note any errors or inconsistencies.

3. Discussion. The three principal investigators will then return to Kenya to meet collectively and individually with the agencies to receive their comments.

4. Redraft to Final Report. These comments will be taken into account in drafting the final report. This report will be delivered to AID in Washington for transmittal to the Government of Kenya. GRC/ATAC will provide an initial set of 50 copies and a master typescript suitable for reproduction of additional copies.

C. Logistic Support

Office space and furnishings, secretarial staff and transport for the team are to be furnished by GRC/ATAC, together with support of its personnel. The Ministry will provide support for Kenyan team members. Any additional support, assistance and cooperation provided by the Ministry or the U.S. AID Mission will be deeply appreciated.

APPENDIX B

QUESTIONNAIRE

DATE _____
ORGANIZATION _____
LOCATION _____

A T A C
AGRICULTURAL MANPOWER
SUPPLY AND DEMAND SURVEY

SURVEY TEAM:
Edmond J. Keller
James Ferkins
Tim Rose

2. What were the reasons for leaving?

NUMBER OF DEPARTURES OVER
LAST THREE YEARS

- a. Insufficient training
- b. Insufficient performance
- c. Other opportunities in private business
- d. for government position
- e. personnel reasons
- f. other reasons

for

AGRICULTURAL SECTOR MANPOWER DEMAND TABLE : 1978 - 1990Objective:

This form is designed to secure information on the present existing demand for agricultural manpower; as well as to secure estimates of future needs over the next 12 years.

Such information will be compared with data from the supplying educational institutions to determine if a manpower gap or surplus does or will exist. With such knowledge, action can then be taken to bring manpower demand and supply into balance.

To Fill in Form:

Column (1) : If the field of specialization of any staff is not covered in the list in this column, write in the actual specialization(s) in the spaces provided at the bottom.

Column (2) : How many persons are employed on establishment, on normal continuing contracts, or other similar arrangements? For each field of specialization noted in Column 2, fill in the numbers employed, for each qualification level.

Column (3) : How many vacancies exist on the staff? For each qualification level and field of specialization, fill in the number of existing vacant posts.

Column (4) : How many non-citizens are presently employed in posts which will be Kenyanized when appropriately qualified citizens become available? Fill in these numbers for each qualification level and field of specialization.

Column (5) : How many individuals will likely be leaving the organization over the next 12 years? Fill in estimates year by year.

In making such estimates, the bases of judgement may often include: probable retirement dates of persons, fulfillment of contracts, resignations, dismissals, losses to other sectors of the economy, and so on.

Column (6) : How many new posts will likely be created over the next 12 years? Fill in estimates year by year.

In making such estimates, the bases of judgement may often include: political and budgetary feasibility, probably program and project expansions or contractions, and so on.

2. Do you think you will be able to fill all vacancies from the available manpower in Kenya.

1. Yes

2.No

2.a.If no, why do you say this?

3. In general, do you prefer to recruit your trained manpower directly from the group of recent graduates coming out of the agricultural training institutions and universities, or do you recruit from the public sector, or from other private sector employers.

3.a.Why do you prefer to do this?

III. User Perceptions of Present Manpower Training and Performance

This section of the questionnaire seeks your opinion about the types of qualifications most need by your staff in order for them to carry out their assigned duties. It would be helpful if you could give us your candid opinion on this. I will ask you questions about all of your trained staff according to their level of training.

1. In general, how adequately trained would you say your certificate, diploma, and University degree holding staff are immediately after leaving school. Would you say they are:

Education Level	Extremely Well Trained	Well Trained	Adequately Trained	Not Well Trained	Extremely Poorly Trained
Certificate					
Diploma					
University					

2. (If poorly trained, not well trained, or adequately trained). In your opinion, why would you say this is so?

3. How do you think training at each level could be improved?

4. Overall, how would you rate the actual job performance of all those staff at the certificate, diploma and university degree levels respectively who have worked under you.

5. Would you like to see your certificate level staff replaced by diplomates or do you feel those trained at that level are generally adequate for the positions they hold?

6. Would you like to see your diploma level staff replaced by university trained staff or do you feel diplomates are generally adequate for the jobs they hold?

7. Now, among your staff who have been trained at the University, how important would you say it is for them to have had training specifically in agriculture?

1. Very important

2. Important

3. Uncertain

4. Not important

5. Very unimportant.

7a. Why would you say this?

8. How suited are people with other university degrees for the type of work you are responsible for in this firm or organization?

IV. TRAINING:

1. Does your firm (organization) provide new staff members with in-service training?

If yes,

2. What kind of training is provided for certificate holders, diplomates and graduates?

a. On-the-Job Training Programs

Subject Matters	Length	Numbers of Personnel Participants 1977
Certificate Level		
Diploma Level		
Graduate Level		

b. Off-Job-Site Training Programs

Subject Matters	Length	Numbers of Personnel Participants 1977
Certificate Level		
Diploma Level		
Graduate Level		

c. What does the training do for the participant?

d. Does the training prepare your staff for promotion?

e. What does the training not do?

f. What other in-service training should be provided? In which fields?

g. Do you plan to make any changes in your training programs for certificate holders, diplomates and graduates?

- 2 -

h. When will you do that?

i. How will you do that?

j. Whom will it affect?

k. Are there other ways in which Certificate holders, diplomates and graduates can get additional training?

If yes,

1. How?

1. SUPERVISION

1. Does your organization provide new staff members with an orientation program to their new jobs?

If yes,

- a. How is this done?

- b. By whom is the orientation done?

2. Does your organization provide new staff members with "special supervision" during the probationary period?

If yes,

- a. How is this done?

- b. By whom is the "special supervision" done?

3. How many supervisory personnel are in this organizational unit?

4. What are the duties and tasks of a supervisor?

5. In your opinion,

- a. How well is the supervisory work performed?

Excellent _____ Good _____ Not well enough _____ Poorly _____

- b. What are the major problems and obstacles to improved supervisory practices?

- c. How could the quality of supervisory work be improved?

6. Do you plan to make any changes or adjustments in the area of supervisory practice in your organization?

If yes,

7. What Changes?

8. How many staff have attended any training courses which taught supervisory skills in the past 3 years?

9. Should supervisory skills be taught at the job site _____
or at a residential center _____?

VI Adequacy of Logistical Support -

We would like to know something about the adequacy of administrative/logistical support for your staff and how it affects staff work performance and morale.

1. We would like to know what your proposed and actual budget was for FY 76 - 77. Would you provide us with the total budget and the budget for each line item.

	TOTAL PROPOSED FY 76 - 77 BUDGET	ACTUAL BUDGET FY 76 - 77	DIFFERENCE
1. Transportation and Operation			
2. Travel and Accommodation			
3. Farm Inputs			
4. Maintenance of Buildings			
5. Postal and Telegrams			
6. Other			
TOTAL			

COMMENTS:

2. Was your budgetary support in the areas listed below sufficient to cover your operational expenses for the entire 12 month Fiscal Year. When answering this question, please discuss how the adequacy or inadequacy of budgetary support as well as logistical and administrative support in each of these areas affects staff work performance and morale. Please be as detailed as possible.
- a) Transportation and Operations
 - b) Travel and Accommodation
 - c) Farm Inputs
 - d) Maintenance of Building
 - e) Postal and Telegrams
 - f) Other
3. Looking at the terms of employment for your staff, what are the major problems and/or complaints. Consider and discuss things like salary, salary increases, promotion, responsibility, supervision, administrative support, in-service training and the like. (Probe for each level of personnel - i.e. certificate, diploma, University.)

4. How would you compare the terms of service in your (Ministry, parastatal, company) for your certificate/diploma/University trained staff with that offered by the private/public sector. Please be as specific as possible.

5. Do you have a system for providing income increments on the basis of merit.

VII. WOMEN IN AGRICULTURAL EXTENSION

1. How many women agricultural extension workers are there in this district (province)?

1a. Can you break this figure down according to their grade and qualifications and the primary functions of these female officers.

<u>Education Level & Grade</u>	<u>Primary Functions</u>
Certificate:	
#1	
#2	
#3	
#4	
Diploma:	
#1	
#2	
#3	
Graduate:	
#1	
#2	

2. Do you feel the need to increase the number of women working in agricultural extension? Why?

3. Are there any problems encountered in providing agricultural extension services to women performing farming activities? (Probe)

If yes,

4. What remedies might be found to deal with these problems?

4a. Could this somehow be alleviated with an increase in the number of women extension workers?

5. Are women extension workers equally rated and paid as male counterparts?

APPENDIX C
SECTOR COVERAGE

Appendix C .

SECTOR COVERAGE

Establishments and Persons Contacted and Interviewed

Table C-1. Survey Coverage of Ministry of Agriculture
(MOA) Headquarters

Heads of Departments, Divisions, or Deputies and Assistants:

Veterinary Services
Research
Animal Production
Extension and Manpower Development
Food Crops
Horticultural Crops
Industrial Crops
Land and Farm Management
Range Management
Personnel
Development Planning
Livestock Marketing
Finance and Establishments

Others in MOA Headquarters*

Mr. Bartilol, Animal Husbandry Officer, Animal Production Division
Dr. S. Harmon, Office of the Permanent Secretary
Mr. Inyaga, Land and Farm Management Division
Mr. Kahucki, Manpower Development Division
Mr. Mayaka, Development Planning Division
Mr. Erastus Mureithi, Extension Services Officer
Mr. S. H. Muturi, Research Division
Mr. M. Nightingale, Section Head, Development Planning Division
Mr. N. P. Nzioka, Planning Officer, Development Planning Division
Mr. G. Ogola, Manpower Development Officers
Mr. A. Owino, Agriculture Personnel Officer, Personnel Division
Mr. W. S. Post, Land and Farm Management Division
Dr. H. Ruthenberg, Development Planning Division
Mr. Simwendyi, Finance and Establishments Office
Mr. P. G. Sitati, Acting Principal Finance and Establishments Officer
Dr. K. Swanberg, Development Planning Division
Dr. J. Thomas, Office of the Permanent Secretary

* Because of the significant numbers of organizations and individuals involved in this study, oversights might well have occurred, and spelling and typographical errors undoubtedly will have appeared.

Table C-2. Survey Coverage of Ministry of Agriculture
in Provinces and Districts

	<u>Interviewed</u>	<u>Questionnaire</u>		<u>Estimated</u>
		<u>Mailed</u>	<u>Received</u>	
CENTRAL PROVINCE, HQ	-			
Kiambu	-			
Muranga	-			
Nyeri	-			
Kirinyaga	-	-	0	-
Nyandarua	-			
NYANZA PROVINCE, HQ	-			
Kisumu	-			
Siaya	-			
South Nyanza	-			
Kisii	-			
WESTERN PROVINCE, HQ	-			
Kakamega	-			
Bungoma	-			
Busia	-			
COAST PROVINCE, HQ	-			
Mombasa	-			
Kilifi	-			
Kwala	-			
Lamu	-			
Tana River	-	-	0	-
Taita Taveta	-	-	0	-
RIFT VALLEY PROVINCE	-			
Laikipia	-			
Narok	-			
Kajiado	-	-	0	-
Turkana	-	-	0	-
Samburu	-	-	0	-
Nakuru	-			
Baringo	-			
Kericho	-			
Eldoret	-			
Nandi	-			
Trans Nzoia	-			
Elgeyo Marakwet	-			
West Pokot	-			

Continued

Table C-2 (continued)

	<u>Interviewed</u>	<u>Questionnaire</u>		<u>Estimated</u>
		<u>Mailed</u>	<u>Received</u>	
EASTERN PROVINCE, HQ	-			
Embu	-			
Meru	-			
Isiolo	-			
Kitui	-			
Machakos	-			
Marsabit		-	0	-
NORTH EASTERN PROVINCE, HQ*				
Garissa			-	
Wajir			-	
Mandera			-	
	<hr/>	<hr/>	<hr/>	<hr/>
PROVINCIAL HEADQUARTERS	7			
DISTRICT OFFICES	30	10	3	7

* Mail returns from the North Eastern Province combined data for Garissa, Wajir and Mandera.

Table C-3. Survey Coverage of Other Ministries

Mr. Agonda, Central Bureau of Statistics, Ministry of Finance and Planning
Mr. Amisi, Directorate of Personnel Management
Mr. Arende, Ministry of Cooperative Development
Dr. P. Delph, Ministry of Finance and Planning
Mr. Hocking, Kenya Institute of Administration, Directorate of Personnel Management
Dr. R. Hook, Ministry of Finance and Planning
Mr. Kinyua, Computer Program Section, Central Bureau of Statistics, Ministry of Finance and Planning
Mr. I. R. Kiiru, Ministry of Cooperative Development
Mr. G. K. Kinyua, Assistant Director, Ministry of Lands and Settlement
Mr. T. Kiragu, Ministry of Lands and Settlement
Mr. Masakaya, Ministry of Finance and Planning
Mr. Mathenge, Ministry of Lands and Settlement
Mr. J. Mburi, Ministry of Wildlife and Tourism
Mr. Mulaki, Directorate of Personnel Management
Mr. Munge, Directorate of Personnel Management
Mr. D. K. Mutura, Ministry of Home Affairs
Mr. Odero, Ministry of Natural Resources
Mr. J. Otieno, Agricultural Planning, Ministry of Finance and Planning
Mr. C. M. Pandya, Ministry of Lands and Settlement
Mr. Saini, Ministry of Lands and Settlement
Mr. P. Singh, Director, Central Bureau of Statistics, Ministry of Finance and Planning
Dr. Wasike, Ministry of Education
Mr. Were, Ministry of Cooperative Development

Table C-4. Survey Coverage of Agricultural Education and Training Institutions and Individuals

University of Nairobi

Dr. C. L. M. Van Eijnatten, Crop Science, Faculty of Agriculture
Dr. Karue, Dean, Faculty of Agriculture
Dr. Maloi, Dean, Faculty of Veterinary Science
Dr. Muchiri, Agriculture Mechanization and Farm Planning, Faculty of Agriculture
Dr. Mugeru, Head of Pathology, former Dean, Faculty of Veterinary Science
Dr. Musangi, Head of Animal Production, former Dean, Faculty of Agriculture
Dr. F. Okatcha, Dean, Faculty of Education
Dr. Schenk, Head of Agriculture Economics, Faculty of Agriculture
Dr. Schulthess, Food Science and Technology, Faculty of Agriculture
Dr. Wolf, Faculty of Veterinary Science

Egerton College

Mr. Auma, Teaching Staff
Mr. Karau, Teaching Staff
Mr. Kature, Agriculture Extension
Mr. Kemei, Teaching Staff
Mrs. Kigutha, Home Economics
Mr. Lugogo, Teaching Staff
Mr. Metto, Teaching Staff
Dr. Misiko, Teaching Staff
Mr. N'bongonda, Agriculture Extension
Mr. Nguyo, Registrar
Dr. Obwaka, Principal
Mrs. Ombwara, Home Economics
Mr. Onyango, Teaching Staff
Mr. G. A. Orie, Deputy Principal
Mr. Owino, Dean of Students

Athi River Meat Training Center

Mr. Kayihura, Teaching Staff
Dr. Mumyao, Director

Naivasha Dairy Training Center

Mr. Buteyo, Principal
Department Heads

Table C-4 (continued)

Animal Health and Industry Training Institute

Mr. Kauau, Principal
Mr. A. M. Munyasya, Registrar

Bukura Institute of Agriculture

Mrs. Chavagi, Deputy Principal
Mr. E. K. Kandie, Principal

Embu Institute of Agriculture

Mr. Peter Kamau, Registrar
Mrs. Kandie, Home Economics
Miss Mberia, Home Economics
Mr. Mucai, Crops
Mrs. Mucai, Animal Production
Mr. Kamau Muniu, Principal
Mr. J. C. Waboyo, Farm Management and Extension
Mr. A. M. W. Wanjama, Head of Agriculture Engineering

Farmer Training Centers

Mr. Gicharu, Farm Manager, Wambugu
Mr. Kabagi, Principal, Machakos (newly appointed)
Mr. Kenduiwa, Principal Bukura
Mrs. Kinyua, Deputy Principal, Wambugu
Mr. T. Matlanyi, Administrator and Chairman of Training, Maasai Rural
Training Center, Insinya
Mr. M. Nuku, Principal, Machakos
Miss Nzuba, Deputy Principal, Machakos
Mr. Odihambo, Principal, Ngong
Mr. J. J. Okwirry, Principal, Eldoret
Mr. Roa, Principal, Wambugu
Mr. Tsuma, Principal, Nyahururu
Mr. Weru, Principal, Kenyatta

Table C-4 (continued)

Other Persons

Dr. J. Bukhala, Staff Development Division, Economic Commission
for Africa
Mr. F. Chege, Research Fellow, Institute of Development Studies,
University of Nairobi
Dr. D. K. Leonard, Assistant Professor of Political Science,
University of California, Berkeley
Dr. A. Maleche, Director, Bureau of Educational Research,
University of Nairobi
Dr. W. Ouma Oyugi, Department of Government, University of Nairobi
Dr. A. Somerset, Research Fellow, Institute of Development Studies,
University of Nairobi

Table C-5. Survey Coverage of Parastatals, Other
Organizations and Individuals

Agricultural Finance Corporation
Canning Crops Board of Kenya
Coffee Authority
Coffee Board
Coffee Marketing Board
Coffee Research Foundation
Cotton Lint and Seed Marketing Board
Horticultural Crops Development Board
Kenya Creameries Cooperative
Kenya Dairy Board
Kenya Farmers Association
Kenya Federation of Cooperatives
Kenya Planters Cooperative Union
Kenya Meat Commission
Kenya Tea Development Authority
Maize and Produce Board
National Christian Council of Kenya
National Irrigation Board
Pig Industry Board
Pyrethrum Board
Pyrethrum Marketing Board
Sisal Board
Tea Board of Kenya
Wheat Board of Kenya

Table C-5 (continued)

Mr. Atwati, Agricultural Development Corporation
Mr. A. F. C. Bunyasi, Agricultural Finance Corporation
Mr. Hermit, Agricultural Finance Corporation
Mr. Kamuyu, Tea Board of Kenya
Mr. Kariuki, Kenya Meat Commission
Mr. P. Katingima, Coffee Board
Mr. Kimana, Kenya Planters Cooperative Union
Mr. Kuria, Kenya Cooperative Creameries
Mr. Mandi, Kenya Tea Development Authority
Mr. Mokamba, Kenya Wheat Board
Mr. Muthundu, Agricultural Finance Corporation
Mr. Opembe, Kenya Sugar Authority
Mr. Rayanga, Dairy Board

Table C-6. Commercial Sub-sector

Acit Ltd.
African Cotton Industries Ltd.
African Highlands Produce Co. Ltd.
African Marine and General Engineering Co. Ltd.
Associated Sugar Co. Ltd.
Atta Ltd.
B.A.T. Kenya Ltd.
Brooke Bond Liebig Kenya Ltd.
Bulleys Tanneries Ltd.
Cadbury Schweppes Kenya Ltd.
Central Packing Factory
Changoi Ltd.
Chemilil Sugar Co. Ltd.
Chemomi Estate
Coca-Cola (Mid-Africa) Ltd.
Cotton Lint and Seed Marketing Board
East African Bag and Cordage Co. Ltd.
East African Bata Shoe Co.
East African Industries
East African Sugar Industries Ltd.
East African Tanning Extract Co. Ltd.
Elgeyo Saw Mills Ltd.
Elianto Ltd.
Elliot's Bakeries Ltd.
Feeds Ltd.
Glaxo-Allenburys (E.A.) Ltd.
Gordhandas Dharamshi and Bros. Ltd.
House of Manji Ltd.
Kabazi Cannery Ltd.
Kakamega Food Industry

Table C-6 (continued)

Kangaita Tea Factory Co. Ltd.
Kapsumbeiwa Factort Co. Ltd.
Kenya Apiaries Ltd.
Kenya Breweries
Kenya Cannerns
Kenya Cashewnuts Ltd.
Kenya Cooperative Creameries
Kenya Meat Commission
Kenya Orchards Ltd.
Kenya Planters Cooperative Union
Kenya Sweets
Keyna Tanning Extract Co. Ltd.
Kenya Tea Development Authority
Kibos Industries Ltd.
Kisumu Cotton Mills (E.A.) Ltd.
Limuru Industries
Maida Ltd.
Marmanet Saw Mills Ltd.
Miwani Sugar Mills Ltd.
Mumias Sugar Co. Ltd.
Mwea Rice Mills Ltd.
Nakuru Oil Mills Ltd.
Nandi Tea Estates Ltd.
Pfizer Laboratories Ltd.
Plastic and Rubber Industries Ltd.
Pyrethrum Marketing Board
Rift Valley Products Ltd.
Saosa Tea Factory
Sokoro Saw Mill Ltd.
Sunflag Spinning Mills (E.A.) Ltd.
Tegat Tea Factory Co. Ltd.
Thika Cloth Mills Ltd.
Timsales Ltd.
Twiga Chemical Industries Ltd.
Unga Ltd.
Unga Ltd. Eldoret Feeds Division
Unga Ltd. Naukru Feeds Division
Vaccine Production Laboratory
Windmill Fertilizers Ltd.
Wrigly Co. (E.A.) Ltd.

APPENDIX C

TABLE C-7

INDUSTRIAL SUBSECTORS CONSIDERED

DIRECTORY OF INDUSTRIES

1974

Typed by:
Kenya Building Centre

Prepared by:
Central Bureau of Statistics
Ministry of Finance and Economic Planning

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(i) - (v)

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I.S.I.C.

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APPENDIX C

TABLE C-8

INDUSTRIAL ESTABLISHMENTS CONTACTED

PART 1

Details on manufacturing firms by industrial activity

Firms Contacted

Other firms not listed here, courtesy CBS updated
and unpublished lists.

NOTE: Those firms marked by a line have been contacted, i.e.:

-04--Uplands Bacon Factory (Kenya) Ltd.-----1946---P.O. Box 1--UPLANDS---Uplands---E-----Bacon, Ham, Canned Meat

DIRECTORY OF INDUSTRIES, 1974.

INTRODUCTION.

This is the second edition of the "Directory of Industries". The first edition was published in September, 1971 and was entitled "Register of Manufacturing Firms, 1970". This edition details up-dated information incorporating the changes that have occurred since 1970 and are known to the Central Bureau of Statistics. Additional information on the year of establishment of the firms is listed in the Directory and details on their physical location are also incorporated in this edition. In other respects the Directory has been compiled along much the same lines as its previous edition referred to above.

2. This Directory has been prepared primarily to disseminate more factual information on the manufacturing sector in Kenya. It is therefore hoped that this publication will provide commercial firms in and outside the country with reliable information on the products manufactured, processed and assembled in Kenya and on the firms responsible for manufacturing these products. In addition, it is also hoped that the Directory will be of use to researchers and scholars interested in studying this sector of the country's economy.

Coverage and Sources:

3. The coverage of the Directory has in the main remained the same as that of the 1970 edition. Firms employing five or more persons which have responded to the Bureau's inquiries are therefore covered in this edition though enterprises engaged in mining and oil prospecting have been excluded due to lack of adequate information. Enterprises engaged in quarrying have also, as in the 1970 edition, not been included. The information published in this edition was obtained from the firms, not by special inquiry, but in the course of the annual statistical surveys and supplemented where necessary with subsequently obtained details. To this extent therefore, the Directory includes particulars only of firms which have co-operated in supplying information.

4. Thus although the Directory incorporates a high percentage of the firms in the manufacturing sector, some have inevitably had to be excluded for the reason mentioned above. It is also possible that the information detailed for some firms may not be complete in every respect for the same reason. Furthermore, the description of commodities indicated against each firm is as supplied by the firm itself. Hence although every care has been taken to harmonise the description of commodities similar commodities may appear under different terms of reference in a few cases.

5. It is hoped that the firms which are not included in this edition of the Directory or which feel that the particulars shown with respect to them are not complete will in future respond to the surveys undertaken by Central Bureau of Statistics so that the next edition can be made more comprehensive and accurate.

Definition:

6. The definition of "Manufacturing" used in the Directory is consistent with the one in the 4-digit version of the 1968 International Standard Industrial Classification (ISIC) of the United Nations, slightly modified to reflect the structure of the manufacturing sector in Kenya.* The information is also detailed on the basis of the ISIC at the 4-digit group level rather than the Standard International Trade Classification (SITC) which is a commodity classification.

7. The table detailing groups into which the manufacturing activity has been categorised and their code numbers follows next in this publication.

Presentation:

8. Information in this edition of the Directory is presented in three parts. In Part I all firms are listed serially by industrial groups. The firms are then alternatively detailed in Part II alphabetically, and Part III contains list of products arranged alphabetically with serial numbers of the firms producing the same indicated against them.

9. Except for a few cases information is presented by firms rather than establishments. In cases of firms which make the same products or products in different branches, only one entry, that of the main establishment, is shown. However, there are firms whose economic activities fall into different groups of the International Standard Industrial Classification. For such firms more than one entry is shown, under each of the appropriate economic activities, if the number of employees engaged in each activity is more than 50.

* The detailed articles on the new 4-digit International Standard Industrial Classification as modified for use in Kenya was printed in the September, 1974 issue of the Kenya Statistical Digest, Vol. XI entitled "Register of Establishments in the Central Bureau of Statistics".

10. The first column of Part I of the Directory has one entry, a 2 - digit number showing the serial order of the firms listed under that activity. The second column shows, first the 2 - digit I.S.I.C. codes which indicates the GROUP, the 3 - digit (MAJOR-DIVISION) and 4 - digit I.S.I.C. codes (DIVISION) and the names of firms, in an alphabetical order which fall under that particular economic activity. The type of ownership is indicated by use of symbols identified as follows:-

PUBLIC SECTOR FIRMS

<u>Symbol:</u>	<u>Type of Ownership:</u>
•	Majority shareholding by public sector.
••	Parastatal organizations
•••	E.A. Community Public Enterprise.

PRIVATE SECTOR FIRMS

+	Minority shareholding by public sector.
++	Public Companies
†	Private Companies
††	Other Private Enterprises
†††	Private non-profit making institutions.
+†	Co-operatives.

The third, fourth, fifth and sixth columns contain the year of establishment of the firm, address and telephone number (if available) and the location of each of the firms listed. The seventh column gives some idea of the size of a particular firm in terms of its employment. However, this is not shown in numbers but rather as a code which refers to the employment group in which the firm falls. Seven Size Class codes are identified as follows:-

Size Class Code:

Number of Employees:

A	5 - 10
B	20 - 49
C	50 - 99
D	100 - 199
E	200 - 499
F	Over - 500

11. The products manufactured are shown in the last column. Some firms undertake minor activities which do not fall into those suggested by the I.S.I.C. group in which they are shown but which are, at the same time, not significant enough to warrant separate identification. In such cases, although an attempt is made to list all the products manufactured, the more important and major products appropriate to the I.S.I.C. group are shown first.

SERIAL NO.	NAME OF FIRM	YEAR FIRM ESTABLISHED	POSTAL ADDRESS	TELEPHONE	LOCATION	SIZE OF FIRM CODE	PRODUCTS MANUFACTURED
01	<p>Division: Major Group: Group</p> <p>31: MANUFACTURING OF FOOD, BEVERAGES AND TOBACCO.</p> <p>311: FOOD MANUFACTURING</p> <p>312:</p> <p>3111: Slaughtering; preparing and preserving meat.</p> <p>East African Meat Products Co. (1965) Ltd. †</p>	1965	P.O. Box 47791, NAIROBI.	RUARAKA 2210 & 2441	Baba Dogo Road, Ruaraka, Nairobi.	B	Sausages; Bacon; Ham; Canned Meat; Pork; Canned Beef & Mutton.
02	Kenya Meat Commission. **	1950	P.O. Box 30414, NAIROBI (Head Office) & Athi River Factory	NAIROBI 27731	Sadler House, Koinange Street, Athi River	E	Fresh Meat; Canned Meat; Chilled Meat; Frozen Meat; Cooked Meat Offals; Hides & Skins; Protein Meal Liver Meal; Animal by Products; Bone Meal.
03	Turi Butchery Ltd. †	1946	P.O. Box 45, MOLO.	NAIROBI 33912 MOLO 30	Molo.	A	Fresh Pork; Beef & Lamb; Bacon; Sausages; Cooked Ham; Black Pudding; Hot Dogs; Dog Biscuits.
04	Uplands Bacon Factory (Kenya) Ltd. ++	1946	P.O. Box 1, UPLANDS.	UPLANDS 251 & 252	Uplands.	E	Bacon Ham; Canned Meat; Sausages; Pork Pies; Lard; Bone Meal; Casings.

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SERIAL NO	NAME OF FIRM	YEAR FIRM ESTABLISHED	POSTAL ADDRESS	TELEPHONE	LOCATION	SIZE OF FIRM CODE	PRODUCTS MANUFACTURED
	Division Major Group 3112 Manufacture of dairy products.						
01	Cow & Gate (E.A.) Ltd. †	1965	P.O. Box 69, ELDORET.	ELDORET 2133	Eldoret.	A	Baby Foods with Milk Base.
02	Dairy Den Ltd. ††	1965	P.O. Box 43814, NAIROBI.	NAIROBI 45885	Westlands Shopping Centre, Nairobi.	A	Ice-Cream.
03	Doinyo Lemos Creameries Ltd. †	1965	P.O. Box 169, ELDORET. (Factory) & P.O. Box 45942, NAIROBI. (Office)	ELDORET 2289 NAIROBI 557074	Eldoret. Ali Khan Avenue, Industrial Area, Nairobi.	B	Cheese; Cream.
04	Food Specialities Kenya Ltd. †	1967	P.O. Box 30265, NAIROBI.	NAIROBI 557166/96	Dakar Road, Industrial Area, Nairobi.	D	Baby Foods with Milk Base; Instant Coffee.
05	Graylands. ††		P.O. Box 9, MOLO.	MOLO 45	Molo.	B	Cheese; Strawberry Jam; Geranium Oil.
06	Kenya Co-Operative Creameries Ltd. †	1925	P.O. Box 30131, NAIROBI.	NAIROBI 557444	Creamery House, Dakar Road, Industrial Area, Nairobi.	F	Fresh Milk; Dried Whole Milk Powder; Cascia; Dried Skim Milk Powder; Evaporated Milk; Ideal Milk; Ultra Heat Treated Milk; Cheese; Fresh and tinned Butter; Ghee.
07	Kenya Milk Products Ltd. †	1956	P.O. Box 816, NAKURU.	NAKURU 2861	Nakuru.	A	Milk & Cream; Cheese.
08	Lions Maid (E.A.) Ltd. †	1959	P.O. Box 42646, NAIROBI.	NAIROBI 34888	Clarkham House, Mfangano Street, Nairobi.	C	Ice-Cream & Lollies.

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SERIAL NO	NAME OF FIRM	YEAR FIRM ESTABLISHED	POSTAL ADDRESS	TELEPHONE	LOCATION	SIZE OF FIRM CODE	PRODUCTS MANUFACTURED
	Division Major Group 3112 cont. Manufacture of dairy products.						
09	Sno-Cream Parlour Ltd. †	1958	P.O. Box 48161 NAIROBI.	NAIROBI 20013	Koinange Street Nairobi.	A	Ice-Cream
10	Solai Mawa Factory. ††	1952	P.O. NAKURU.	-	Nakuru.	A	Mawa (Solidified Condensed Milk).
	3113 Canning and Preserving of fruits and vegetables.						
01	Associated Packers Ltd. †	1956	P.O. Box 18114, NAIROBI.	NAIROBI 557555	Funzi Road, Industrial Area, Nairobi.	B	Fruit Squashes; Jellies; Instant Pudding; Sauces.
02	Bean Processing Plant, Maize and Produce Board: ** (1)	1974	P.O. Box 30586, NAIROBI.	NAIROBI 558192	Enterprise Road, Industrial Area, Nairobi.	C	Beans and Groundnuts
03	Feingold, J.H. ††	-	P.O. Box 536, NAKURU.	BAHATI 237	Nakuru.	A	Strawberry Jams; Strawberry Juice.
04	Frozen Foods (Kenya) Ltd. †	1965	P.O. Box 41063 NAIROBI.	-	Nairobi.	A	Canned Fruit & Vegetables.
05	Kabazi Cannery Ltd. †	1963	P.O. Box 1000, NAKURU.	SUBUKIA 3Y5 & BAHATI 278	Upper Subukia Road, Nakuru	E	Canned Vegetables; Canned Fruit; Canned Curried Rice; Canned Tomato Juice; Fruit Salad; Chutnies.
06	Kenya Cannery Ltd. †	1948	P.O. Box 147, THIKA.	THIKA 2243 & 2467	Factory Road, Thika.	F	Canned Fruit; Pineapple Juice; Pineapple Slices & Segments; Frozen & Canned Vegetables; Haricot & Cream Beans; Peas; Beans in Tomato Sauce; Carrots; Corn; Whole Tomatoes; Tomato Sauce.

SERIAL NO	NAME OF FIRM	YEAR FIRM EST-ABLI-SHED	POSTAL ADDRESS	TELE-PHONE	LOCATION	SIZE OF FIRM CODE	PRODUCTS MANUFACTURED
	Division Major Group sion Group 3113 cont. Canning and preserving of fruits and vegetables.						
07	Kenya Fruit Processors Ltd. +	1966	P.O. Box 13, SOTIK.	SOTIK 34	Sotik.	B	Passion Fruit Juice.
08	Kenya Orchards Ltd. ++	1948	P.O. Box MACHAKOS.	MACHAKOS 14	Maa Hill, Machakos.	D	Canned Fruit & Vegetables; Jams; Marmalades; Fruit Juices; Tomato Sauce; Tomato Ketchup Condensed Soup; Custard Powder; Jelly Crystals; Blancrango Powder; Cornflour; Lemon Meat; Mince Meat.
09	Kenya Sunshine Products Ltd. ††	1941	P.O. Box 40786, RUARAKA.	RUARAKA 2239	Baba Dogo Road, Ruaraka.	A	Fruit Squashes; Concentrates & Syrups; Passion Fruit Juice; Black Currant Health Drink; Strawberry; Raspberry ; Sauces; Tomato Sauce; Tomato Ketchup; Vinegar; Ghee; Salad Oil.
10	Limuru Canning Factory. ††	1966	P.O. Box 146, LIMURU.	LIMURU 220	Limuru.	A	Canned & Fresh Peas.
11	Pan African Foods (1968) Ltd. †	1968	P.O. Box 192, NAIVASHA.	NAIVASHA 114	Naivasha.	E	Dehydrated Vegetables; Cabbages; Carrots; Onion; Leeks; Beetroots; Mixed Vegetables; Cashew Nuts.
12	Trufoods Ltd. †	1958	P.O. Box 41521, NAIROBI.	NAIROBI 557700	Jogoo Road, Nairobi.	D	Jams; Peanut Butter; Jellies; Pickles; Canned Pineapple; Tomato Sauce; Potato Crisps; Custard Powder; Baking Powder; Salad Oil; Fruit Squashes; Vinegar.
	(1) Commenced production in June, 1974.						

SERIAL NO	NAME OF FIRM	YEAR FIRM ESTABLISHED	POSTAL ADDRESS	TELEPHONE	LOCATION	SIZE OF FIRM CODE	PRODUCTS MANUFACTURED
	Division Group Major Group 3114 Canning, preserving and processing of fish.						
01	Bcl Mare Kenya Ltd. †	-	P.O. Box 15529, NAIROBI	LANGATA 395	Langata, Nairobi.	B	Fish Processing.
02	Mvita Fisheries (1970) Ltd. †	1970	P.O. Box 83563, MOMBASA.	MOMBASA 20878	Mombasa.	A	Fresh & Frozen sea products.
03	Naivasha Fisheries Co. Exploration Ltd. ††	1959	P.O. NAIVASHA.	-	Naivasha.	B	Fresh & Frozen Fish.
04	North Coast Fisheries Organisation. ††	1969	P.O. Box 358, MALINDI.	-	Malindi.	A	Fresh & Frozen Tilapia; & Frozen Sea Products.
05	Samaki Industries (K) Ltd. †	1965	P.O. Box 84708, MOMBASA.	MOMBASA 23444	Mbarak Hinawy Street Mombasa.	B	Fresh & Frozen Lobsters & Prawns; Kingfish; Crabs; Beef; Lamb.
06	Tilapia Industries Ltd. †	1964	P.O. Box 330, KISUMU.	KISUMU 2884	Kisumu.	A	Fresh & Frozen Tilapia; Tilapia Fillets.
	3115 Manufacture of vegetables and animal oils and fats.						
01	Acif Ltd. †	1969	P.O. Box 42966, NAIROBI.	NAIROBI 559447 & 557570	Lusaka Road, Industrial Area, Nairobi.	C	Salad Oil; Ghee.
02	Coastal Industries Ltd. †	-	P.O. Box 81285, MOMBASA.	MOMBASA 24850 & 24905	Mombasa.	A	Salad Oil.

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SERIAL NO	NAME OF FIRM	YEAR FIRM ESTABLISHED	POSTAL ADDRESS	TELEPHONE	LOCATION	SIZE OF FIRM CODE	PRODUCTS MANUFACTURED
	Division Major Group 3115 cont. Manufacture of vegetables and animal oils and fats.						
03	Dabois Oil Mill and Soap Factory Ltd. †	1940	P.O. Box 80374, MOMBASA.	MOMBASA 25282 & 25634	Office: Haile Selassie Road, Mombasa. Factory: Kwa Jonvu Mainland North, Mombasa.	D	Coconut Oil; Cotton Seed Oil; Soap; Maize Flour.
04	East African Industries. †	1949	P.O. Box 30062, NAIROBI.	NAIROBI 557111 & 557231	Commercial Street, Industrial Area, Nairobi.	D	Edible Oils & Fats; Fruit Squashes; Margarine; Glycerine.
05	Eastern Industrial Works Ltd. †	1970	P.O. Box 82241, MOMBASA.	MOMBASA 73319	Changanwe Area, Mombasa.	A	Coconut Oil; Copra Cake.
06	Elianto (K) Ltd. (1) †	1974	P.O. Box 11333, NAKURU.	NAKURU 3501	Tinderet Avenue, Nakuru.	D	Edible Oils & Ghee
07	Kisumuwala Oil Millers Ltd. †	1960	P.O. Box 98107, MOMBASA.	MOMBASA 25939	Hwangcha Road, Mombasa.	B	Coconut Oil; Copra Oil.
08	Nakuru Oil Mills Ltd. † (2)	1961	P.O. Box 15, NAKURU.	NAKURU 2453	Industrial Area, Nakuru.	C	Edible Oils; Cotton Oil Cake; Sunflower Oil Cake; Rope Oil Cake; Groundnut Oil Cake; Animal Feeds.
09	Produce Dealers and Millers Ltd. †	1946	P.O. Box 1750, KISUMU.	KISUMU 3069	Lahore Road, Kisumu.	D	Cotton Seed Oil & Cake; Cotton Lint; Washing Soap; Ginned Cotton; Animal Feeds.

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C-8-9

SERIAL NO	NAME OF FIRM	YEAR FIRM ESTABLISHED	POSTAL ADDRESS	TELEPHONE	LOCATION	SIZE OF FIRM CODE	PRODUCTS MANUFACTURED
10	<p>Div- Major Group sion Group</p> <p>3115 cont. Manufacture of vegetables and animal oils and fats.</p> <p>Qaizar Oil Industry. ††</p> <p>(1) To commence production towards the end of 1974. (2) Sold to Nakuru Oil Mills (1974) Ltd. w.e.f. 1st January 1974.</p> <p>3116 Grain mill products.</p>	1969	P.O. Box 84646, MOMBASA.	-	Lumumba Road, Mombasa.	A	Industrial Coconut Oil.
01	Atta Ltd. † (1)	1956	P.O. Box 82202, MOMBASA.	MOMBASA 21792	Mwangeka Road, Mombasa.	D	Wheat flour; Wheat Bran Wheat Pollard; Maize Meal; Maize Germ Meal; Maize Bran; Animal Feeds.
02	East African Dal & Flour Mills. †	1950	P.O. Box 82607, MOMBASA.	MOMBASA 26083	Simu ya Upopo Road, Mombasa.	A	Milled & Whole Pulses; Spices.
03	Farmers Flour Mills. ††	1948	P.O. Box 55, MOLO.	-	Molo.	A	Barley Meal; Maize Meal; Crushed Oats.
04	General Mahala Stores. ††	1937	P.O. Box 82172, MOMBASA.	MOMBASA 26410	Mwabanda Road, Mombasa.	A	Maize Flour.
05	Gudka Food Manufacturing Co. ††	1951	P.O. Box 40391, NAIROBI.	NAIROBI 28171 & 28046	Changanwe Road, Nairobi.	B	Milled & Whole Pulses; Ground Spices; Curry Powder.
06	Hasham Lalji & Sons Ltd. ††	1952	P.O. Box 66, ELDORET.	ELDORET 2704	Eldoret.	A	Wheat Flour; Wheat Bran; Pollard.

SERIAL NO	NAME OF FIRM	YEAR FIRM ESTABLISHED	POSTAL ADDRESS	TELEPHONE	LOCATION	SIZE OF FIRM CODE	PRODUCTS MANUFACTURED
	Division Major Group Group 3116 cont. Grain mill products.						
07	Habuini Posho Millers Co. ††	1967	P.O. Box 434, NYERI.	-	Nyeri.	B	Maize Flour.
08	Jambo Flour Millers Ltd; †	1973	P.O. Box 43628, NAIROBI.	NAIROBI 558386	Homa Bay Road, Industrial Area, Nairobi.	A	Maize Millers.
09	Kamagwe Mill & Store. ††	1969	P.O. Box 211, MERU.	-	Harambee Street, Meru.	A	Maize Flour.
10	Kaptana Store. ††	1966	P.O. Box 48, KIMILILI.	-	Kimilili.	A	Maize Flour.
11	Keera Nyamondo Power Mill. ††	1968	P.O. RONGO.	-	Rongo.	A	Maize Flour.
12	Kenya Flour Mills. †	1940	P.O. Box 42529, NAIROBI.	NAIROBI 551839	Bamburi Road, Industrial Area, Nairobi.	A	Maize Flour; Wheat Flour.
13	Kenya Grain Mills Ltd. †	1956	P.O. Box 440, NAKURU.	-	Nakuru.	A	Maize Flour; Gristles.
14	Kenya Millers Ltd. †	1966	P.O. Box 43181, NAIROBI.	NAIROBI 558863	Nairobi.	B	Milled & Whole Pulses.
15	Kenya Oatmeal Ltd. †	1920	P.O. Box 80, NAKURU.	NAKURU 2279	Nakuru.	A	Maize Flour; Porridge Oats; Mineral Water.
16	Kibon Industries Ltd. †	1965	P.O. Box 44, KISUMU.	KISUMU 3250	Kisumu.	C	Milled Rice; Maize Flour; Edible Oils; Cotton Seed Cake; Sesam Cake; Groundnut Cake.

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C-8-11

SERIAL NO.	NAME OF FIRM	YEAR FIRM ESTABLISHED	POSTAL ADDRESS	TELEPHONE	LOCATION	SIZE OF FIRM CODE	PRODUCTS MANUFACTURED
	Divi- Major Group sion Group 3116 cont. Grain mill products.						
17	Kiritiri Pocho Mill. ††	1969	P.O. KIRITIRI.	-	Kiritiri.	A	Maize Flour.
18	Maida Ltd. ††	1951	P.O. Box 41788, NAIROBI.	NAIROBI 558477/8 558450 558550	Dakar Road, Industrial Area, Nairobi.	E	Wheat Flour; Maize Flour; Wheat Offals; Maize Offals; Animal Feeds.
19	Maize Ltd. †	1967	P.O. Box 66, ELDORET. & P.O. Box 46138, NAIROBI.(Factory).	ELDORET 2704 & NAIROBI 556524	Sirikwa Street, Eldoret. Changamwe Road, Industrial Area, Nairobi.	B	Maize Flour; Maize Germ; Maize Bran; Maize Meal.
20	Modern Furniture & Power Mill. †	-	P.O. Box 12, BUTERE.	-	Butere	A	Maize Flour; Furniture.
21	Mt. Kenya Millers. †	1970	P.O. Box 143, NYERI.	NANYUKI 2279	Nyeri.	A	Maize Flour.
22	Mucandini Grinding Mill. ††	1958	P.O. KHAYENGA via KAKAMEGA.	-	Khayenga.	A	Maize Flour.
23	Mulchand Devji. ††	1930	P.O. Box 10208, NAIROBI.	NAIROBI 25824	Cross Lane, Nairobi	A	Wheat Flour; Milled & Whole Pulses; Icing Sugar; Ground Spices; Betelnut Chips; Mukhwa.
24	Mwea Rice Mills Ltd. †	1966	P.O. Box 30372, NAIROBI. (Head Office) & P.O. Box 80, KERUGOYA (Factory)	NAIROBI 22931 EMBU 4	Nairobi. Embu.	C	Milled Rice; Rice Bran; Animal Feed.

SERIAL NO	NAME OF FIRM	YEAR FIRM ESTABLISHED	POSTAL ADDRESS	TELEPHONE	LOCATION	SIZE OF FIRM CODE	PRODUCTS MANUFACTURED
	Division Major Group Group 3116 cont. Grain mill products.						
45	Unga Ltd. ††	1963	P.O. Box 30386, NAIROBI. (Head Office)	NAIROBI 31133	Chester House, Koinange Street, Nairobi.	F	Wheat Flour; Maize Flour; Wheat Offals; Maize Offals.
46	United Flour Mills. ††	1954	P.O. Box 18121, NAIROBI.	NAIROBI 558962	Industrial Area, Nairobi.	A	Maize Flour; Milled & Whole Pulse.
47	Upper Kano Posho Mills. ††	1965	P.O. KIBIGORI.		Kibigori.	A	Maize Flour.
48	Victoria Flour Mills. †† (1) Sold in March 1974 to Atta (1974) Ltd.	1943	P.O. BUTERE.		Butere.	A	Maize Flour.
	3117 Manufacture of bakery products.						
01	Ambec Ltd. †	1962	P.O. Box 41527, NAIROBI.	NAIROBI 20860	Nairobi.	B	Bread; Cakes; Pies.
02	Anglo-Swiss Bakery Ltd. †	1963	P.O. Box 83175, MOMBASA.	MOMBASA 26377	Kilindini Road, Mombasa.	C	Bread; Cakes; Pastries.
03	Aurora Baking Co. Ltd. †	1958	P.O. Box 72597, NAIROBI.	NAIROBI 28162	Pumwani Road, Nairobi.	C	Bread; Cakes; Pastries.
04	Azania Bakery. ††	1945	P.O. Box 85350, MOMBASA.	MOMBASA 24311	Miji Kenda Street, Mombasa.	B	Bread.
05	Badrudin Popat Damji. ††	1972	P.O. Box 42619, NAIROBI.	NAIROBI 558035	Bandari Road, Industrial Area, Nairobi.	A	Bread; Rolls.

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SERIAL NO	NAME OF FIRM	YEAR FIRM ESTABLISHED	POSTAL ADDRESS	TELEPHONE	LOCATION	SIZE OF FIRM CODE	PRODUCTS MANUFACTURED
	Division Major Group Group 3117 cont. Manufacture of bakery products.						
06	Batchelor's Bakery Ltd. †	1959	P.O. Box 45167, NAIROBI.	NAIROBI 559214	Lusaka Road, Industrial Area, Nairobi.	C	Bread; Cakes; Pastries.
07	Broadway Bakery. ††	1967	P.O. Box 25, THIKA.	THIKA 2057	Commercial Street, Thika.	B	Bread; Cakes; Pastries.
08	Chibugwanji, Stephen (Khayega Bakery). ††		P.O. Box 2027, KHAYEGA.		Khayega.	A	Bread.
09	Delite Bakery. ††	1970	P.O. Box 83545, MOMBASA.	MOMBASA 21983	Muslim Road, Mombasa.	A	Bread.
10	Duncans Ltd. †	1951	P.O. Box 104, ELDORET.	ELDORET 2381	Kenyatta Road, Eldoret.	A	Bread; Cakes; Chocolates; Biscuits.
11	Electric Bakery & Confectionery. †	1965	P.O. Box 230, KERICHO.	KERICHO 168	Garage Road, Kericho.	A	Bread; Cakes;
12	Elliot's Bakeries Ltd. ††	1948	P.O. Box 40175, NAIROBI.	NAIROBI 556100 & 556129	Changamwe Road, Industrial Area, Nairobi.	F	Bread; Cakes; Pastries.
13	Emmal Khamisa Bakery. ††		P.O. Box 98382, MOMBASA.		Mombasa.	A	Bread; Cakes; Pastries; Biscuits.
14	Express Bakery. ††	1963	P.O. Box 49727, NAIROBI.	NAIROBI 26280	Ngara Road, Nairobi.	B	Bread; Cakes; Pastries.

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SERIAL NO	NAME OF FIRM	YEAR FIRM ESTABLISHED	POSTAL ADDRESS	TELEPHONE	LOCATION	SIZE OF FIRM CODE	PRODUCTS MANUFACTURED
	Division Major Group Group 3117 cont. Manufacture of Bakery products.						
15	Fairview Bakery. ††	1962	P.O. Box 11930, NAIROBI.	NAIROBI 40225	Bujumbura Road, Nairobi.	A	Bread; Cakes; Biscuits.
16	G.G.G. Bakery. †	1969	P.O. Box 192, GILGIL.		Gilgil.	B	Bread.
17	Gakwa, Nahashon & Co. Bakery. † (1)	1964	P.O. Box 77, KARATINA.	KARATINA 247	Karatina.	B	Bread; Cakes.
18	Gilani Bakeries Ltd.	-	P.O. Box 510, NAKURU.	NAKURU 2995	Hobley Street, Nakuru.	A	Bread; Cakes; Pastries.
19	House of Manji (1967) Ltd. †	1954	P.O. Box 30995, NAIROBI.	NAIROBI 555944	Likoni Road, Industrial Area, Nairobi.	E	Biscuits; Sweets; Toffees; Macaroni Pasta; Spaghetti.
20	Kahama Bakery. ††	1966	P.O. Box 579, ELDORET.	ELDORET 2291	Oginga Odinga Street, Eldoret.	C	Bread.
21	Kakamega Food Industry. †	1966	P.O. Box 69, KAKAMEGA.	KAKAMEGA 55	Industrial Area, Kakamega.	C	Bread.
22	Kisumu Bakery Ltd. †	1970	P.O. Box 169, KISUMU.	KISUMU 2668	Obote Road, Kisumu.	B	Bread; Cakes; Pastries.
23	Kitale Bakery Ltd. †	1949	P.O. Box 33, KITALE.		Kitale.	A	Bread; Cakes; Biscuits; Pastries. Meringue.
24	Machakos Charity Bakery. ††	1969	P.O. Box 181, MACHAKOS.		Machakos.	A	Bread.

SERIAL NO	NAME OF FIRM	YEAR FIRM ESTABLISHED	POSTAL ADDRESS	TELEPHONE	LOCATION	SIZE OF FIRM CODE	PRODUCTS MANUFACTURED
	Division Major Group 3117 cont. Manufacture of bakery products.						
45	Westlands Bakery Ltd. †	1962	P.O. Box 14447, NAIROBI.	NAIROBI 45243	Westlands, Nairobi.	A	Bread; Cakes; Pastries.
46	Zahra Industries Ltd. † (2)	1972	P.O. Box 46878, NAIROBI.	NAIROBI 559641	Butere Road, Industrial Area, Nairobi.	D	Biscuits.
	(1) Please note these two entries i.e. 3117/17 & 3117/32 refer to the same firm. The error is regretted. (2) Expected to commence production towards the end of 1974.						
	3118 Sugar factories and refineries.						
10	Associated Sugar Co. Ltd. †	1965	P.O. Box 90134, MOMBASA.	MOMBASA 25589	Nehru Road, Mombasa.	F	Sugar; Molasses.
02	Beda Jaggery Factory. ††	1968	P.O. Box 2, MUMIAS.		Mumias	B	Jaggery.
03	Chemelil Sugar Co. Ltd. †	1965	P.O. CHEMELIL.	MUHORONI 22 SONGHOR 12 Y 3	Chemelil.	F	Sugar; Molasses.
14	E.A. Sugar Industries Ltd. †	1966	P.O. Box 2, MUHORONI.	MUHORONI 16 & 17	Muhoroni.	F	Sugar; Molasses.

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SERIAL NO	NAME OF FIRM	YEAR FIRM ESTABLISHED	POSTAL ADDRESS	TELEPHONE	LOCATION	SIZE OF FIRM CODE	PRODUCTS MANUFACTURED
	Divi- Major Group sion Group 3118 com. Sugar factories and refineries.						
05	Elago Sugar Cane Factory Trading Co. ††	1970	P.O. Box 372, KISIL	-	South Mugirango.	A	Jaggery.
06	Kabondo Jaggery Factory Co. ††	1968	P.O. MIRIGO, Via KISIL	-	East Kanyoga.	A	Jaggery.
07	Karindanda Sugarcane Crusher. †	1970	P.O. Box 303, KARATINA.	-	Nyeri.	A	Sugar cane Crushing.
08	Miwani Sugar Mills Ltd. †	1965	PRIVATE BAG, MIWANI.	KISUMU 2716	Kiunna.	F	Sugar; Molasses; Cane Seed; Methylated Spirit.
09	Mumias Sugar Co. Ltd. *	1971	PRIVATE BAG, MUMIAS.	MUMIAS 6	Mumias.	E	Sugar; Molasses.
10	Nyamoo Jaggery Factory. ††	1969	P.O. Box 61, HOMABAY.	-	Homabay.	A	Jaggery.
11	Variety Jaggery Dealers. ††	1968	P.O. Box 717, KISUMU.	-	Oginga Odinga Road, Kiunna.	A	Jaggery.
12	Yala Jaggery Factory & Produce Mills. ††	1966	P.O. Box 3, YALA.	YALA 55	Yala.	C	Jaggery.

SERIAL NO	NAME OF FIRM	YEAR FIRM ESTABLISHED	POSTAL ADDRESS	TELEPHONE	LOCATION	SIZE OF FIRM CODE	PRODUCTS MANUFACTURED
	Div: Major Group; sion: Group; 3119: cont: Manufacture of cocoa, chocolate and sugar confectionery.						
06	United Sweet Mart: †	-	P.O. Box 310; KISUMU.	-	Kisumu.	A	Indian Sweets & Confectionery.
09	Virani Confectionery, Works Ltd: †	1949	P.O. Box 101; THIKA.	THIKA: 2148	Workshop Road, Thika.	C	Sweets; Toffees.
10	Wrigley, Co. (E.A.) Ltd: †	1969	P.O. Box 30767; NAIROBI.	NAIROBI 559733 & 559743	Bamburi Road, Industrial Area, Nairobi.	C	Chewing Gum.
	3121: Manufacture of food products not elsewhere classified!						
01	African Highlands Produce Co. Ltd: †	1923	P.O. Box 72244; NAIROBI.	NAIROBI 31424	Nairobi.	C	Tea.
02	Balpon Manufacturers Ltd: †	1970	P.O. Box 40337; NAIROBI.	NAIROBI 40412	Bojumbura Road, Nairobi.	A	Bovest; Baking Powder; Custard Powder; Cocoa; Chocolates; Vitamins; Animal Feeds.
03	Bizari Industries: †	1963	P.O. Box 43622; NAIROBI.	NAIROBI 20526	Sheikh Karimo, Street; Nairobi.	A	Curry Powder; Spices.
04	Brooke Bond Lichtig Kenya Ltd: † (1)	1965	P.O. Box 42011; NAIROBI. (Head Office)	NAIROBI 29951	Stanbank House, Government Road.	E	Tea; Roasted Coffee.

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SERIAL NO	NAME OF FIRM	YEAR FIRM ESTABLISHED	POSTAL ADDRESS	TELEPHONE	LOCATION	SIZE OF FIRM CODE	PRODUCTS MANUFACTURED
	Divi- Major Group sion Group 3121 cont. Manufacture of food products not elsewhere classified.						
04	Central Packing Factory:		P.O. Box 20, KERICHO.	KERICHO 146 & 147	Kericho.	D	Packed Tea & Coffee.
05	Central Ice Factory. ††	1952	P.O. Box 81971, MOMBASA.	MOMBASA 23905	i.ikoni Road, Mombasa.	A	Industrial Ice.
06	Chai Ltd. †	1966	P.O. Box 72889, NAIROBI.	NAIROBI 23051 & 29910	Haile Selassie Avenue, Nairobi.	B	Roasted & Ground Coffee; Tea.
07	Changoi Ltd. † (3)	1953	P.O. Box 124, KERICHO.	KERICHO 70 Y 1	Kericho.	C	Tea.
08	Managing Agents: George Williamson Africa Ltd. Chebat Tea Factory Co. Ltd. † Managing Agents: George Williamson Africa Ltd.	1972	P.O. Box 42281, NAIROBI.	NAIROBI 26711	Nairobi.	C	Tea
09	Chemoni Estate. †		P.O. Box 378, KAPSABET.	KAPSABET 36	Kapsabet.		
			P.O. Box 42281, NAIROBI.	NAIROBI 26711	Nairobi.		
10	Cofresh Ltd. †	1956	P.O. Box 22, NANDI HILLS.		Nandi District	F	Tea.
			P.O. Box 42440, NAIROBI.	NAIROBI 25408	Ramesh Gantama Road, Nairobi.	B	Potato Crisps; Curried Peas & Peanut; Roasted Peanuts; Roasted Cashew Nuts; Popcorn; Peanut Fudge.

C-8-18

SERIAL NO	NAME OF FIRM	YEAR FIRM ESTABLISHED	POSTAL ADDRESS	TELEPHONE	LOCATION	SIZE OF FIRM CODE	PRODUCTS MANUFACTURED
	Division Major Group Group 3121 cont. Manufacture of food products not elsewhere classified.						
16	Fundisha Salt Works Ltd. †	1932	P.O. Box 40892, NAIROBI.	NAIROBI 22271	Kimathi Street, Nairobi.	B	Salt.
17	Glaxo-Almaburya (E.A.) Ltd. †	1964	P.O. Box 48573, NAIROBI	NAIROBI 55844 & 558683	Dakar Road, Industrial Area, Nairobi.	D	Baby Foods; Cereal & Milk Foods, Glucose; Pharmaceutical Products.
18	Ilaria Industries Ltd. (2) †	1971	P.O. Box 43474, NAIROBI.	NAIROBI 557130	Dunga Road, Nairobi.	A	Spices; Roasted Coffee.
19	Kwambi Tea Factory Co. Ltd. †	1971	P.O. Box 895, THIKA.		Thika.	C	Tea.
	Managing Agents: Brooke Bond Leinig Kenya Ltd.		P.O. Box 42011, NAIROBI.	NAIROBI 29951	Nairobi.		
20	Imenti Tea Factory Co. Ltd. †		PRIVATE BAG, MERU.		Meru.	B	Tea
	Managing Agents: Eastern Produce Africa Ltd.		P.O. Box 22, NANDI HILLS.	NANDI HILLS 20 & 34	Nandi Hills.		
21	Kaimosi Tea Estates Ltd. †	1959	P.O. KAIMOSI		Kaimosi.	C	Tea.
	Managing Agents: George Williamson Africa Ltd.		P.O. Box 42281, NAIROBI.	NAIROBI 26711	Nairobi.		

C-8-19

SERIAL NO	NAME OF FIRM	YEAR FIRM ESTABLISHED	POSTAL ADDRESS	TELEPHONE	LOCATION	SIZE OF FIRM CODE	PRODUCTS MANUFACTURED
	Division Major Group 3121 cont. Manufacture of food products not elsewhere classified.						
22	Kanguga Ltd. †	1929	P.O. Box 124, KERICHO.	-	Kericho.	B	Tea.
	Managing Agents: E.A. Acceptances Ltd.	-	P.O. Box 40310, NAIROBI.	NAIROBI 22287	Nairobi.		
23	Kaitet Tea Estate. †	-	P.O. Box 61, NANDI HILLS.	-	Nandi District.	C	Tea
24	Kangita Tea Factory Co. Ltd.	1965	P.O. Box 88, KERUGOYA.	KERUGOYA 13 Y 2	Kerugoya.	D	Tea.
	Managing Agents: George Williamson Africa Ltd.		P.O. Box 42281, NAIROBI.	NAIROBI 26711/3	Nairobi		
25	Kapchorua Tea Co. Ltd. †	-	P.O. Box 12, NANDI HILLS.	-	Nandi District.	C	Tea.
26	Kapsunbeiya Factory Co. Ltd. †	1964	P.O. Box 1, NANDI HILLS.	NANDI HILLS 6 Y 9	Nandi District.	D	Tea.
27	Karania Packers. ††	1969	P.O. Box 18292, NAIROBI.	NAIROBI 557203	Funzi Road, Industrial Area, Nairobi.	B	Cocoa Powder; Baking Powder; Salt.

C-8-20

SERIAL NO	NAME OF FIRM	YEAR FIRM ESTABLISHED	POSTAL ADDRESS	TELEPHONE	LOCATION	SIZE OF FIRM CODE	PRODUCTS MANUFACTURED
	Div- Major Group sion Group 3121 cont. Manufacture of food products not elsewhere classified.						
28	Karirana Estates Ltd. †	1961	P.O. Box 39, LUMURU.	LIMURU 324	Limuru.	C	Tea.
	Managing Agents: George Williamson Africa Ltd.		P.O. Box 42281, NAIROBI.	NAIROBI 26711	Nairobi.		
29	Kibirigo Tea Factory Co. Ltd. †	1971	P.O. Box 2040, LITEIN.		Litein.	D	Tea.
	Managing Agents: James Finlay & Co. Ltd.		P.O. Box 72244, NAIROBI.	NAIROBI 31424	Mfangano Street, Nairobi.		
30	Kenya Cashewnuts Ltd. *	1931	P.O. Box 49, KILIFI.	KILIFI 12	Kilifi.	E	Cashew Nuts; Cashew Kernels.
31	Kenya Food Products Ltd. †	1960	P.O. Box 43204, NAIROBI.	NAIROBI 557647, & 557669	Changamwe Road, Industrial Area, Nairobi.	A	Spices; Curry Powder.
32	Kenya Planters Co-operative Union. ††	1947	P.O. Box 72309, NAIROBI.	NAIROBI 28761	Nairobi.	E	Milled Coffee.
33	Kenya Spicers & Packers. ††	1970	P.O. Box 47132, NAIROBI.	NAIROBI 558454	Nanyuki Road, Nairobi.	A	Spices.

C-8-21

SERIAL NO	NAME OF FIRM	YEAR FIRM ESTABLISHED	POSTAL ADDRESS	TELEPHONE	LOCATION	SIZE OF FIRM CODE	PRODUCTS MANUFACTURED
	Division Major Group 3121 cont. Manufacture of food products not elsewhere classified.						
34	Kepchomo Tea Estate. †	-	P.O. Box 83, NANDI HILLS.	NANDI HILLS. 13	Nandi District.	C	Tea.
35	Kisajokoma Tea Factory. **, Managing Agents: Kenya Tea Development Authority.	1971	P.O. Box 30213, NAIROBI.	NAIROBI 21441	Nairobi.	C	Tea.
36	Kihwari Tea Estate Ltd. † Managing Agents: Theta Group Ltd.	1963	P.O. Box 33, NANDI HILLS. P.O. Box 40006, NAIROBI.	NANDI HILLS. 17 NAIROBI 23426	Nandi District. Nairobi.	B	Tea.
37	Kip-Koinet Tea Co. Ltd. †	-	P.O. Box 54, NANDI HILLS.	NANDI HILLS 6 Y 1	Nandi District.	C	Tea.
38	Koingat Tea Estate Ltd. †	-	P.O. NANDI HILLS.	NANDI HILLS 6 Y 3	Nandi District.	B	Tea.
39	Kynsilot Tea Factory. † Managing Agents: James Finlay & Co. Ltd.	-	P.O. Box 72244, NAIROBI.	NAIROBI 31424	Kericho District. Nairobi.	C	Tea.

SERIAL NO	NAME OF FIRM	YEAR FIRM ESTABLISHED	POSTAL ADDRESS	TELEPHONE	LOCATION	SIZE OF FIRM CODE	PRODUCTS MANUFACTURED
	Div- Major Group sion Group 3121 cont. Manufacture of food products not elsewhere classified.						
40	Leksa Tea Estate Ltd. †	1956	P.O. Box 124, KERICHO.	KERICHO 70 Y 2	Kericho.	C	Tea.
	Managing Agents: George Williamson Africa Ltd.		P.O. Box 42281, NAIROBI.	NAIROBI 26711	Nairobi.		
41	Limuru Industries. †	1972	P.O. Box 323, LIMURU	LIMURU 418	Limuru	C	Salt.
42	Litein Tea Factory Co. Ltd. †	1965	P.O. LITEIN	LITEIN 4	Litein	C	Tea.
	Managing Agents: James Finlay & Co. Ltd.		P.O. Box 72244, NAIROBI.	NAIROBI 31424	Nairobi.		
43	Man Forest Ltd. †		P.O. Box 377, KERICHO.	KERICHO 28	Kericho.	B	Tea.
44	Nairobi Food Products Ltd. †	1966	P.O. Box 11092, NAIROBI.	NAIROBI 24809	Newark Road, Nairobi.	A	Spices & Curry Powder.
45	Nandi Tea Estates Ltd. †		P.O. NANDI HILLS.	NANDI HILLS. 8	Nandi District.	C	Tea.
46	Ngorongo Tea Factory. †		P.O. Box 364, KIAMBU.	KIANDA 239	Kiambu	C	Tea.
	Managing Agents: Livingstone Registrars Ltd.		P.O. Box 30029, NAIROBI.	NAIROBI 46911	Nairobi.		

C-8-23

SERIAL NO	NAME OF FIRM	YEAR FIRM ESTABLISHED	POSTAL ADDRESS	TELEPHONE	LOCATION	SIZE OF FIRM CODE	PRODUCTS MANUFACTURED
	Division Major Group 3121 cont. Manufacture of food products not elsewhere classified.						
47	Nyambeni Tea Co. Ltd. † Managing Agents: Eastern Produce Africa Ltd.		PRIVATE BAG, MERU. P.O. Box 22, NANDI HILLS.		Meru. Nandi District.	C	Tea.
48 C-8-24	Nyankoba Tea Factory Co. Ltd. † Managing Agents: James Finlay & Co. Ltd.	1965	P.O. Box 72244, NAIROBI.	KEROKA 15 & 18 NAIROBI 31424	Kisii District. Nairobi.	C	Tea.
49	Old E.A. Trading Co. Ltd. †	1949	P.O. Box 30013, NAIROBI.	NAIROBI 27161	Tom Mboya Street, Nairobi.	B	Roasted & Ground Coffee.
50	P.J. Products Ltd. †	1964	P.O. Box 44827, NAIROBI.	NAIROBI 25578	Haile Selassie Avenue, Nairobi	C	Cornflakes; Baking Powder; Jelly Crystals; Sweets; Toffees; Pickles; Chutnies.
51	Pickwell Products (E.A.) Ltd. †	1966	P.O. Box 43126, NAIROBI.	NAIROBI 27009	Kimathi Street, Nairobi.	A	Snuff; Tobacco.
52	Popat Bros. ††	1949	P.O. Box 81364, MOMBASA.	MOMBASA 26542	Mwabundu Road, Mombasa.	A	Snuff; Tobacco.
53	Rift Valley Products Ltd. †	1958	P.O. Box 1023, NAKURU.	NAKURU 2071	Nakuru.	C	Linseed Oil; Salad Oil; Sun Flower Cake; Rapeseed/Linseed Cake; Cotton Seed Cake; Manioc.

SERIAL NO	NAME OF FIRM	YEAR FIRM ESTABLISHED	POSTAL ADDRESS	TELEPHONE	LOCATION	SIZE OF FIRM CODE	PRODUCTS MANUFACTURED
	Division Group Major Group 3121 cont. Manufacture of food products not elsewhere classified.						
59	Tegal Tea Factory Co. Ltd. † Managing Agents: James Finlay & Co. Ltd. †	1971	P.O. Box 2040, LITEIN. P.O. Box 72244, NAIROBI.	KERICHO 277 Y 1 NAIROBI 31424	Kericho District. Nairobi.	D	Tea.
60	Tinderet Tea Estates Ltd. † Managing Agents: George Williamson Africa Ltd.	1961	P.O. Box 12, LUMBWA. P.O. Box 42281, NAIROBI.	SONGHOR 13 Y 4 NAIROBI 26711	Nandi District. Nairobi.		Tea.
61	Twiga Products Ltd. †	1966	P.O. Box 40381, NAIROBI.		Nairobi.	B	Curry Powder; Spices; Grain Flour; Starch; King Sugar.
62	Virani Curry Powder & Flour Mills. ††	1967	P.O. Box 40381, NAIROBI.	NAIROBI 21053	Mfangano Road, Nairobi.	B	Curry Powder; Spices.
63	Vita Products. ††		P.O. Box 41640, NAIROBI.	NAIROBI 559626	Industrial Area, Nairobi.	A	Potato Crisps; Cashewnuts; Roasted Nuts; Peanuts.
	(1) Complete list of tea factories owned by Brooke Bond Lichig Kenya Ltd. appears on page 167 (2) Bought by C.P.C. Kenya Ltd. with effect from June, 1974. (3) Changed name to George Williamson Kenya Ltd.						

SERIAL NO	NAME OF FIRM	YEAR FIRM ESTABLISHED	POSTAL ADDRESS	TELEPHONE	LOCATION	SIZE OF FIRM CODE	PRODUCTS MANUFACTURED
	Divi- Major Group sion Group 3122 Manufacture of prepared animal feeds.						
01	A.B.C. Foods ++	1954	P.O. Box 330, NAKURU.	NAKURU 2198	Printing Works Road, NAKURU.	B	Animal Feeds.
02	Belfast Millers. ††	1970	P.O. Box 18453, NAIROBI.	NAIROBI 558488	Bamburi Road, Industrial Area, Nairobi.	A	Animal Feeds.
03	Feeds Ltd. †	1969	P.O. Box 66, ELDORET.	ELDORET 2704	Eldoret.	C	Animal Feeds.
04	Kenya Molasses Cattle Feeds Ltd. †	1972	P.O. Box 30056, NAIROBI.	NAIROBI 24381	Shell B.P. House, Harambee Avenue, Nairobi.	B	Animal Feeds.
05	Lea Bros. & Blakeman (E.A.) Ltd. †	1956	P.O. Box 43059, NAIROBI.	NAIROBI 558645	Nanyuki Road, Nairobi.	B	Animal Feeds.
06	Lucubes Ltd. †	1967	P.O. Box 109, NAIVASHA.	-	Naivasha.	A	Animal Feeds.
07	Muns Kenya Ltd. †	1973	P.O. Box 41968, NAIROBI. (Office) P.O. Box 625, THIKA. (Factory)	-	Nairobi. Thika.	A	Animal Feeds.
08	Prinical Ltd. †	1968	P.O. Box 24964, NAIROBI.	KAREN 2463	Dagoretti Road, Nairobi.	C	Dog & Cat Feeds.
09	Sher - Berry Industries Ltd. †	1971	P.O. Box 45091, NAIROBI.	-	Nanyuki Road, Industrial Area, Nairobi.	A	Animal Feeds (Bone Meal)

C-8-26

SERIAL NO	NAME OF FIRM	YEAR FIRM ESTABLISHED	POSTAL ADDRESS	TELEPHONE	LOCATION	SIZE OF FIRM CODE	PRODUCTS MANUFACTURED
	Div- Major Group sion Group 3122 cont. Manufacture of prepared animal feeds.						
10	Unga Ltd. Eldoret Foods Division. ++	1963	P.O. Box 106, ELDORET.	ELDORET 2319	Industrial Area, Eldoret.	E	Animal Feeds.
11	Unga Ltd. Nakuru Foods Division. ++	1963	P.O. Box 160, NAKURU.	NAKURU 2181	Industrial Area, Nakuru.	E	Animal Feeds.
12	Vitamins (E.A.) Ltd. †	1966	P.O. Box 41891, NAIROBI.	NAIROBI 32248	Standard Building, Nairobi.	A	Animal Feeds.
	313 BEVERAGE INDUSTRIES. 3131 Distilling, rectifying, & blending spirits.						
01	Gilbey's East Africa Ltd. †	1963	P.O. Box 18240, NAIROBI.	NAIROBI 555833	Kampala Road, Industrial Area, Nairobi.	C	Wines; Spirits.
	3133 Malt Liquors & Malt.						
01	Kenya Breweries Ltd. †	1960	P.O. Box 30161, NAIROBI.	RUARAKA 2701	Thika Road, Nairobi.	F	Beer; Stout; Malt.
02	Laikipia Beer Hall. †	1965	P.O. Box 299, NYAHURURU.		Nyahururu.	A	Beer(Local)

C-8-27

SERIAL NO	NAME OF FIRM	YEAR FIRM ESTABLISHED	POSTAL ADDRESS	TELEPHONE	LOCATION	SIZE OF FIRM CODE	PRODUCTS MANUFACTURED
	Division Major Group 3133 cont. Malt liquors & malt.						
03	Modern Breweries ††	1970	P.O. Box 73555, NAIROBI.	NAIROBI 29136	New Pumwani Road, Nairobi.	A	Beer (Local)
04	Njubi Brewery Ltd. †	1966	P.O. Box 18280, NAIROBI.	NAIROBI 558323	Lunga Lungu Road, Industrial Area, Nairobi.	A	Beer (Local)
	3134 Soft drinks and carbonated waters industries.						
01	Aggarwal Bros. ††	1942	P.O. Box 56, NANYUKI.	NANYUKI 2177	Nanyuki.	A	Mineral Waters.
02	Cadbury Schweppes Kenya Ltd. †	1970	P.O. Box 45466, NAIROBI.	NAIROBI 559172 & 559466	01 Kalou Road, Industrial Area, Nairobi.	F	Mineral Waters; Cocoa Powder.
03	Coastal Bottlers Ltd. †	1962	P.O. Box 83154, MOMBASA.	MOMBASA 20881/2	Mbaraki Industrial Area, Mombasa.	C	Mineral Waters.
04	Coca-Cola (Mid-Africa) Ltd. †	1956	P.O. Box 30134, NAIROBI.	NAIROBI 32088 & 29514	Bruce House, Nairobi.	E	Mineral Waters & Concentrates.
05	Crystal Soda Factory. ††	1965	P.O. Box 84158, MOMBASA.	MOMBASA 73333	Mombasa.	A	Mineral Waters.

C-8-28

SERIAL NO	NAME OF FIRM	YEAR FIRM ESTABLISHED	POSTAL ADDRESS	TELEPHONE	LOCATION	SIZE OF FIRM CODE	PRODUCTS MANUFACTURED
06	Divi- Major: Group: sion: Group: 3134: cont.: Soft drinks and carbonated waters industries. Equator Bottlers Ltd. ††	1962	P.O. Box 780, KISUMU.	KISUMU 2648 & 3065	Josh Street, Kisumu.	C	Mineral Waters.
07	Highlands Mineral Water Co. Ltd. ††	1950	P.O. Box 9, NYERI.	NYERI 2048	Nyeri.	A	Mineral Waters.
08	Jeffreys Minerals Ltd. ††	1970	P.O. Box 82632, MOMBASA.	MOMBASA 25670	Alladin Visram Road, Mombasa.	A	Mineral Waters.
09	Kenya Ice & Aerated Water Factory. ††	1931	P.O. Box 80546, MOMBASA.	MOMBASA 25287	Nkrumah Road, Mombasa.	A	Mineral Waters.
10	Spark Diamond Soda Water Factory. ††	1945	P.O. Box 69, ELDORET.	ELDORET 2167	Eldoret.	A	Mineral Waters.
01	314: 3140: Tobacco manufacture. B.A.T. Kenya Ltd. ††		P.O. Box 30000, NAIROBI.	NAIROBI 55555	Likoni Road, Industrial Area, Nairobi.	F	Cigarettes & Tobacco.

SERIAL NO	NAME OF FIRM	YEAR FIRM ESTABLISHED	POSTAL ADDRESS	TELEPHONE	LOCATION	SIZE OF FIRM CODE	PRODUCTS MANUFACTURED
	Division Major Group Major Group						
	3211 cont. Spinning weaving & finishing textiles.						
07	Kenya Textile Mills Ltd. +	1964	P.O. Box 44534, NAIROBI.	NAIROBI 22180 & 22025	Koinange Street, Nairobi.	F	Nylon Cloth.
08	Kinto & Allied Products Ltd. †	1969	P.O. Box 49444, NAIROBI.	NAIROBI 559047	Lokitung Road, Industrial Area, Nairobi.	B	Shoe Laces; Whistle Cord; Lanyards.
09	Kimron Cotton Mills Ltd. +	1965	P.O. Box 47, KISUMU. (Head Office & Factory)	KISUMU 2331/3	Pemba Road, Kisumu.	F	Cotton Yarn & Cloth; Cotton Waste.
			P.O. Box 30459, NAIROBI. (Office)	NAIROBI 26394	Nairobi.		
10	Sunflag Spinning Mills (E.A.) Ltd. †	1964	P.O. Box 41627, NAIROBI.	NAIROBI 557755	Bandari Road, Industrial Area, Nairobi.	E	Yarn; Knitted Fabric.
11	Thika Cloth Mills Ltd. †	1960	P.O. Box 120, THIKA.	THIKA 2257	Thika.	F	Spun Rayon, Cotton Yarn; Finishing Cloth; Woven Fabric; Knitted Fabric; Knitted Garments (Vests, Briefs & Tee Shirts)
12	United Textile Industries (Kenya) Ltd. +	1964	P.O. Box 30338, NAIROBI.	NAIROBI 25450 & 218917	Standard Bank Building, Kimathi Street, Nairobi.	F	Viscose/ Rayon Yarn; Woven Fabric; Gingham; Sarung; Keboya; Bedcloths.

C-8-30

SERIAL NO	NAME OF FIRM	YEAR FIRM ESTABLISHED	POSTAL ADDRESS	TELEPHONE	LOCATION	SIZE OF FIRM CODE	PRODUCTS MANUFACTURED
10	Div. Major Group: Division Group: 3213: cont. Knitting mills. Raymond Woolen Mills (Kenya) Ltd. ++	1969	P.O. Box 735, ELDORET.	ELDORET 2526	Eldoret.	F	Knitted & Hosiery Yarn; Knitted Piece Goods & Fabric; Knitting; Wool.
01	3215: Cordage rope & twine industries. Acid Ltd. †	1969	P.O. Box 42966, NAIROBI.	NAIROBI 559447 & THIKA 2228	Luaka Road, Industrial Area, Nairobi. Thika Industrial Area, Thika.	F	Gunny Bags; Coir Fibre; Hessian Cloth.
02	African Ropes & Twines Ltd. ††	1965	P.O. Box 40140, NAIROBI.	NAIROBI 559250 & 559244	Fenzi Road, Industrial Area, Nairobi.	D	Rope; Sisal Twine.
03	East African Bag & Cordage Co. Ltd. ++	1938	P.O. RUIRU.	RUIRU 23/29	Thika Road, Ruira.	F	Gunny Bags; Rope; Hessian Cloth; Sack Cloth; Serim; Jute & Sisal Twine; Phormium Tenax; Sisal Matting; Car Mats; Fire-side Rugs & Table Mats.
04	Harania Kapok & Coir Manufacturers Ltd. ††	1959	P.O. Box 98235, MOMBASA.	MOMBASA 24125	Baringo Road, Mombasa.	A	Coir Fibre.
05	Kenya Coir Industries Ltd. †	-	P.O. Box 82326, MOMBASA.	MOMBASA 26751	Haile Selassie Road, Mombasa.	A	Coir Fibre.

SERIAL NO	NAME OF FIRM	YEAR FIRM ESTABLISHED	POSTAL ADDRESS	TELEPHONE	LOCATION	SIZE OF FIRM CODE	PRODUCTS MANUFACTURED
	Division Major Group 3215 cont. Cordage rope & twine industries.						
06	Kenya Fishnet Industries Ltd. †	1970	P.O. Box 1878, KISUMU.	KISUMU 2113 & 2335	Nirumah Road, Kisumu.	C	Fish Nets.
07	Mombasa Coir Industry Ltd. †	1965	P.O. Box 85336, MOMBASA.	KIKAMBALA 2 Y 2	Mtwapa, Mombasa	A	Coir Fibre.
	3216 Cotton ginning & gineries.						
01	Cotton Lint & Seed Marketing Board. **		P.O. Box 30477, NAIROBI.	NAIROBI 31006	Uchumi House, City Centre, Nairobi.	C	Ginned Cotton; Cotton Lint; Cotton Seed.
02	Kenya Industries Ltd. †	1937	P.O. Box 23, KISUMU	SIAYA 36	Ndere Ginnery Kisumu.	A	Ginned Cotton; Cotton Lint; Cotton Seed.
03	Kiboa Ginnery. *	1972	P.O. Box 943, KISUMU.		Kisumu.	B	Ginned Cotton; Cotton Lint; Cotton Seed.
04	Kitui Gineries Ltd. †	1967	P.O. Box 10, KITUI.	KITUI 11	Kitui.	B	Ginned Cotton; Cotton Lint; Cotton Seed.
05	Lamu Ginners Co. ††	1950	P.O. Box 80221, MOMBASA.	MOMBASA 23903	Nyeri Street, Mombasa.	C	Ginned Cotton.
06	Maliadi Gineries Ltd. †	1932	P.O. Box 80059, MOMBASA.	MOMBASA 25758	Nirumah Road, Mombasa	B	Ginned Cotton; Clean Kapak; Cotton Lint; Cotton Seed.
07	Mwaa Cotton Ginnery. *	1972	P.O. Box 317, EMBU.		Embu.	C	Ginned Cotton; Cotton Lint; Cotton Seed.

C-8-32

SERIAL NO	NAME OF FIRM	YEAR FIRM ESTABLISHED	POSTAL ADDRESS	TELEPHONE	LOCATION	SIZE OF FIRM CODE	PRODUCTS MANUFACTURED
151	<p>Division Major Group 3220 cont. Manufacture of wearing apparel, except footwear.</p> <p>Zaverchand Stores. ††</p> <p>(1) Business Closed down late in 1973. (2) Went into receivership in 1974.</p> <p>323 MANUFACTURE OF LEATHER AND LEATHER PRODUCTS EXCEPT FOOTWEAR AND WEARING APPAREL</p>	1938	P.O. Box 41233, NAIROBI.	NAIROBI 23629	Tom Mboya Street, Nairobi.	B	Nighties & Pyjamas; Petticoats Briefs; Blouses.
01	3231 Tanneries & leather finishing.	1946	P.O. Box 72032, NAIROBI.	NAIROBI 2243	Nairobi.	B	Leather.
02	Africa Trade Agency Ltd. †	1920	P.O. Box 41075, NAIROBI.	NAIROBI 40571	Bujumbura Road, Nairobi.	B	Skins.
03	Bulleys Tanneries Ltd. †	1949	P.O. Box 15, THIKA.	THIKA 2301/2	Thika.	F	Upper & Sate Leather; Sheep & Goat Skins; Kaps; Splits; Industrial Protective Leather Gloves; Crocodile & Reptile Leather.

C-8-33

SERIAL NO	NAME OF FIRM	YEAR FIRM ESTABLISHED	POSTAL ADDRESS	TELEPHONE	LOCATION	SIZE OF FIRM CODE	PRODUCTS MANUFACTURED
04 05 06 01 02 03	Division Major Group 3231 cont. Tanneries & leather finishing.						
	East African Bata Shoe Co. Ltd. †	1940	P.O. Box 23, LIMURU.	LIMURU 251	Limuru.	F	Shoes; Leather, Canvas, Plastic, Rubber; Leather Tanning; Tubes & Bicycle Tyres.
	East African Leather Factory. †*	1942	P.O. Box 46227, NAIROBI.	DANDORA 10 Y 4	Juja Road, Nairobi.	B	Leather; Leather Belts, Bags, Cases, Shoes; Stools (Out of Elephant Legs) Leather Containers; Purses; Sandals; Chappals; Valise & Watch Straps; Wallets; Leather Laces; Dog Collars; Key Cases.
	Nakuru Tanners Caring. ††	1958	P.O. Box 225, NAKURU.	NAKURU 2645	Ebrahim Estate, Nakuru.	B	Leather; Leather Articles.
	3233 Manufacture of leather products except footwear & wearing apparel.						
	Afro Leather Goods Manufacturing Ltd. †	1968	P.O. Box 47488, NAIROBI.	NAIROBI 557978	Bonia Road, Industrial Area, Nairobi.	B	Plastics & Gamekin Ladies Handbag
	Afrolite Industries. †	1970	P.O. Box 44037, NAIROBI.	NAIROBI 558059	Factory Street, Industries Area, Nairobi.	C	Gents' Travelling Bags; Ladies Handbags; Belts; Briefcases; Kitchen Holders.
Ataria Trading Co. ††	1970	P.O. Box 28047, NAIROBI	NAIROBI 559851	Likoni Road, Industrial Area, Nairobi.	A	Leather Belts; Ladies Handbags & Gamekin Products.	

SERIAL NO	NAME OF FIRM	YEAR FIRM ESTABLISHED	POSTAL ADDRESS	TELEPHONE	LOCATION	SIZE OF FIRM CODE	PRODUCTS MANUFACTURED
	Division Major Group Group 3311 cont. Sawmills, planing & other wood mills.						
22	Elgeyo Saw Mills (K) Ltd. †	1963	P.O. Box 510, ELDORET. (Factory) P.O. Box 18043, NAIROBI.	MOIBEN 5 Y 5 NAIROBI 558289	Elgeyo Marakwet, Near Iten. Industrial Area, Nairobi.	E	Sawn Timber; Tea Chests.
23	Endima Sawmills (1957) Ltd. ††	1957	P.O. MAU NAROK.	MAU NAROK 7 Y 4	Man Narok.	A	Sawn Timber.
24	G.D. & Bros. ††	1956	P.O. Box 22, KIKUYU.	KIKUYU 2051 & 21395	Kikuyu.	D	Sawn Timber; Wooden Boxes; Fencing Posts.
25	Ghani & Hamid Ltd. †	1960	P.O. Box 175, NAKURU.	NAKURU 2175	Timber Mill Road, Nakuru.	B	Sawn Timber; Wooden Doors; Wooden Windows.
26	Githu S.M. ††		P.O. Box 84, THIKA.		Thika.	A	Sawn Timber.
27	Gurdhan Gopal & Sons. †	1944	P.O. Box 146, ELDORET.	ELDORET 2388	Eldoret.	A	Sawn Timber.
28	Gordhandas Dharamshi & Bros. Ltd. †	1942	P.O. Box 155, LIMURU.	HILL ROAD 237 & 138	Chepore Lane, Limuru.	E	Sawn Timber; Fuel; Wooden Boxes; Posts; Off Cuts; Wooden Houses.
29	Gujaram Aggarwal. ††	1958	P.O. AINABKOL.		Ainabkoi.	C	Sawn Timber (Cypress).
30	Hansraj Saw Mills. ††	1958	P.O. Box 34, ELDORET.	ELDORET 2428	Eldoret.	D	Sawn Timber.

C-8-35

SERIAL NO	NAME OF FIRM	YEAR FIRM ESTABLISHED	POSTAL ADDRESS	TELEPHONE	LOCATION	SIZE OF FIRM CODE	PRODUCTS MANUFACTURED
	Division Group Major Group 3311 cont. Sawmills, planing & other wood mills.						
48	Kwale Saw Mills. †	1956	P.O. Box 80838, MOMBASA.	MOMBASA 23085	Wahenzi Street, Mombasa.	B	Sawn Timber.
49	Maina Saw Mills Ltd. †	1968	P.O. Box 136, NYAHURURU		Nyahururu.	B	Cypress Timber.
50	Marakwet Saw Mills Ltd. †	1969	P.O. Box 146, ELDORET.	ELDORET 2388	Eldoret.	C	Sawn Timber (Podo).
51	Marmamet Saw Mills Ltd. †	1955	P.O. Box 374, NYAHURURU.	NYAHURURU 80 & 127	Nyahururu.	E	Sawn Timber; Cedar Wood Oil; Pencil Slats; Windows; Doors.
52	Masaha Saw Mills Ltd. †	-	P.O. Box 2033, ENDEBESS.	ENDEBESS 7 Y 8	Endebess.	C	Sawn Timber.
53	Mhale Saw Mills. †	1969	P.O. Box 18, KAKAMEGA.	KAKAMEGA 125	Kakamega.	C	Sawn Timber.
54	Mhoeni Timber Supply Co. ††	1964	P.O. KIKIMA via MACHAKOS.		Kikima.	A	Sawn Timber.
55	Meghji Kanji †	1953	P.O. Box 11, THIKA.	THIKA 2213	Thika.	A	Sawn Timber; Convel Blocks.
56	Molo Saw Mills. ††	1969	P.O. Box 230, MOLO.	MOLO 108	Molo.	C	Sawn Timber.
57	Mt. Blackett Saw Mills Ltd. †	-	P.O. Box 879, NAKURU.	MOLO 1 Y 6	Molo.	B	Sawn Timber.

C-8-30

SERIAL NO	NAME OF FIRM	YEAR FIRM ESTABLISHED	POSTAL ADDRESS	TELEPHONE	LOCATION	SIZE OF FIRM CODE	PRODUCTS MANUFACTURED
	Div. Major Group sion Group 3311 cont. Sawmills, planing & other wood mills.						
67	Savanna Saw Mills. †	-	P.O. Box 1410, NAKURU.	NAKURU 2707	Printing House, Nakuru.	A	Sawn Timber.
68	Shah & Patel (E.A.) Ltd. †	1949	P.O. NYAHURURU.	NYAHURURU 8	Nyahururu.	B	Sawn Timber; Pencil Slate; Cedar-wood oil; Doors; Door Frames; Flooring Blocks.
69	Shah Saw Mills Ltd. †	1958	P.O. Box 42185, NAIROBI.	NAIROBI 558037	Factory Street, Industrial Area, Nairobi.	A	Sawn Timber; Blocks; Hard Board; Plywood Products; Wooden Suitcases;
70	Shah Timber Mart Ltd. †	1949	P.O. Box 18054, NAIROBI.	NAIROBI 558353 & 557304	Homa Bay Road, Industrial Area, Nairobi.	C	Plywood Faced Block Boards; Doors; & Door Frames; Windows; Machined Timber; Mouldings; Kitchen Units Flooring Blocks.
71	Sikh Saw Mills. †	-	P.O. Box 72466, NAIROBI.	NAIROBI 557035	Bamburi Road, Industrial Area, Nairobi.	A	Sawn Timber; Planed Timber; Patterned Wood.
72	Sokoro Plywood Ltd. †	1967	P.O. Box 12, ELBURGON.	ELBURGON 36	Elburgon.	D	Plywood.
73	Sokoro Saw Mill Ltd. †	1952	P.O. Box 12, ELBURGON.	ELBURGON 21	Elburgon.	E	Sawn Timber; Planed Timber.
74	Sorget Saw Mills Ltd. †	-	P.O. Box 17, LONDIANI.	LONDIANI 36	Londiani.	B	Sawn Timber.

C-8-37

C-8-38

SERIAL NO	NAME OF FIRM	YEAR FIRM ESTABLISHED	POSTAL ADDRESS	TELEPHONE	LOCATION	SIZE OF FIRM CODE	PRODUCTS MANUFACTURED
	Divi- Major Group sion Group 3311 cont. Sawmills, planing & other wood mills.						
75	Sasani Saw Mills (1969) Ltd. †	1969	P.O. Box 258, KITALE.	-	Kitale	C	Sawn Timber.
76	Timberland Sawmills. †	1954	P.O. Box 1002, NAKURU.	NAKURU 2760	Printing House, Industrial Area, Nakuru.	C	Sawn Timber; Planed Timber; Doors & Door Frames.
77	Timco Ltd. †	-	P.O. Box 1002, NAKURU.	NAKURU 2760	Industrial Area, Nakuru.	A	Sawn Timber.
78	Timtala Ltd. †	1934	P.O. Box 18080, NAIROBI.	NAIROBI 559511	Enterprise Road, Industrial Area, Nairobi.	F	Sawn Timber; Flooring Blocks; Boxes Door Frames; Pallets; Laminated Beams & Roofs; Prefabricated Houses; Treated Timber.
79	Uttara Singh Brar. ††	1954	P.O. Box 42083, NAIROBI.	NAIROBI 558164	Factory Street, Industrial Area, Nairobi.	C	Sawn Timber; Boxes; Packing Cases.
80	Wananchi Saw Mills Ltd. *	1967	P.O. Box 481, NYERI.	NYERI 2332	Kiganjo/Mweiga Junction, Nyeri.	C	Sawn Timber.
81	Wason Timbers Ltd. †	1951	P.O. Box 120, MERU.	MERU 3 Y 1	Goods Shed Road, Meru.	C	Sawn Timber; Prefabricated Houses.
82	West Man Saw Mills. ††	1968	P.O. Box 150, MOLO.	MOLO 2 Y 5	Molo.	C	Sawn Timber.

SERIAL NO	NAME OF FIRM	YEAR FIRM ESTABLISHED	POSTAL ADDRESS	TELEPHONE	LOCATION	SIZE OF FIRM CODE	PRODUCTS MANUFACTURED
	Division Major Group 3511 cont. Manufacture of basic industrial chemicals excluding fertilizers.						
05	Orbit Chemical Industries Ltd. †	1972	P.O. Box 48870, NAIROBI.	NAIROBI 558402	Likoni Road, Industrial Area, Nairobi.	A	Manufacture of Industrial Chemicals.
01	3512 Pyrethrum extraction. Pyrethrum Marketing Board. **	1964	P.O. Box 420, NAKURU.	NAKURU 3511	Standard Bank, Building, Kenyatta Avenue, Nakuru.	F	Baled Flowers; Pyrethrum Powder; Pyrethrum Extract.
01	3513 Wattle Bark extraction. East African Tanning Extract Co. Ltd. †	1948	P.O. Box 190, ELDORET.	ELDORET 2311 & 2313	Kenmosa, Eldoret.	F	Wattle Extract; Solid & Powder; Chopped Pressed Bark.
02	Kenya Tanning Extract Co. Ltd. †	1934	P.O. Box 1, THIKA.	THIKA 2014 & 2089	Upper Road, Thika.	D	Wattle Extract; Solid & Powder; Chopped Pressed Bark.
03	Mauku Wattle Mills Ltd. †	1972	P.O. Box 40872, NAIROBI.	NAIROBI 22113	Muindi Mbingu Street, Nairobi.	A	Chopped Pressed Mimosa; Wattle Bark.

C-8-39

SERIAL NO.	NAME OF FIRM	YEAR FIRM ESTABLISHED	POSTAL ADDRESS	TELEPHONE	LOCATION	SIZE OF FIRM CODE	PRODUCTS MANUFACTURED
	Division Major Group Group 3514 Manufacture of fertilizer & pesticides.						
01	Murphy Chemicals (E.A.) Ltd. †	1957	P.O. Box 30438, NAIROBI.	NAIROBI 28034 KAMITI 222	Kamiti, Nairobi.	C	Pesticide Chemicals; Fungicides; Miteicides; Rodenticides; Wood Killers.
02	Shell Chemicals Co. of Eastern Africa Ltd. ++	1950	P.O. Box 30056, NAIROBI.	NAIROBI 24381	Harambee Avenue, Nairobi.	B	Agricultural & Industrial Chemicals.
03	Twiga Chemical Industries Ltd. †	1948	P.O. Box 30172, NAIROBI.	NAIROBI 25905 & 27787	Town House, York Street, Nairobi.	E	Agricultural, Veterinary & Industrial Chemicals; Paints; Livestock Dips; Livestock Feed Supplements & Additions.
04	Vaccine Production Laboratory. ††	1964	P.O. Box 18021, NAIROBI.	NAIROBI 558686 & 559145	Enterprise Road, Industrial Area, Nairobi	C	Foot & Mouth Disease Vaccines; Bivalent; F & M.D. Vaccine Monovalent.
05	Wellcome Kenya Ltd. †	-	P.O. PRIVATE BAG, KABETE.	FORT SMITH 2031	Fort Smith.	B	Livestock Dips; F.&M Biologicals; Livestock Feedstuff; Pharmaceuticals; Veterinary Equipment.
06	Windmill Fertilizers (E.A.) Ltd. +	1961	P.O. Box 1018, NAKURU.	NAKURU 2307 & 2925	Dalgaty House, Nakuru.	D	Fertilizers, N.P.R. Mixtures.

C-8-40

SERIAL NO	NAME OF FIRM	YEAR FIRM ESTABLISHED	POSTAL ADDRESS	TELEPHONE	LOCATION	SIZE OF FIRM CODE	PRODUCTS MANUFACTURED
26 cont. C-8-41 01 02 03 04 05 06	Division Major Group 3523 cont. Manufacture of soap, perfumes, cosmetics & other toilet preparations.						
	Wankamerwalla & Co. ††	1937	P.O. Box 80474, MOMBASA	MOMBASA 23182	Digo Road, Mombasa.	A	perfumes); Doedorant Sticks; Hair Lacquer.
	3529 Manufacture of chemical products not elsewhere classified.						
	Coates Brothers (E.A.) Ltd. †	1960	P.O. Box 30607, NAIROBI.	NAIROBI 556611	Addis Ababa Road, Industrial Area, Nairobi.	C	Ink, Printing Inks & Coatings, News Ink, Metal Decorating Ink, Flexographic Ink, Sundry Printing Product
	Diversy (E.A.) Ltd. †	1970	P.O. Box 41939, NAIROBI.	NAIROBI 559777	Butere Road, Industrial Area, Nairobi.	B	Manufacture of Industrial Chemicals.
	East African Match Co. (K) Ltd. †	1951	P.O. Box 82525, MOMBASA.	MOMBASA 73211	Kwa Jonvu, Mombasa.	D	Matches.
	Johnson's Wax (E.A.) Ltd. †	1968	P.O. Box 18373, NAIROBI.	NAIROBI 557301	Jirore Road, Industrial Area, Nairobi.	C	Aerosol Insecticides; Air Fresheners; Deodorants; Toilet Bowl Cleaners.
Jupiter Chemical Co. Ltd. †	1966	P.O. Box 40768, NAIROBI.	NAIROBI 22855	Ronald Ngala Street, Nairobi.	B	Cosmetics; Perfumes; Inks; Stamp Pad Inks; Disinfectants; Insecticides.	
Kenya Apiculture Ltd. †	1964	P.O. Box 252, NAKURU.	NAKRUR 2756	Kufanya Road, Nakuru.	C	Refined Honey; Insect Repellent; Mosquito Coils; Pyrethrum Insecticides; Refined Bees Wax.	

SERIAL NO	NAME OF FIRM	YEAR FIRM ESTABLISHED	POSTAL ADDRESS	TELEPHONE	LOCATION	SIZE OF FIRM CODE	PRODUCTS MANUFACTURED
	Div- Major Group sion Group 3529 cont. Manufacture of chemical products not elsewhere classified.						
07	Kerai Industries Co. ††	1972	P.O. Box 83565, MOMBASA.	MOMBASA 21099	Lumumba Road, Mombasa.	A	Detergent Washing Powder; Scouring Powder
08	Kivi Home Products (E.A.) Ltd. †	1961	P.O. Box 30457, NAIROBI.	NAIROBI 555222	Nanyuki Road, Industrial Area, Nairobi.	C	Shoe & Floor Polishes; Insecticides; Disinfectants; White Shoe Dressing; Wood Preservatives; Aerosols; Insecticides.
09	Local Industries Ltd. †	1958	P.O. Box 40534, NAIROBI.	NAIROBI 559245	Busia Road, Industrial Area, Nairobi.	A	Bleach; Shoe & Flour Polishes; Detergents; Scouring Powder; Air Fresheners; Aerosols Insecticides; Disinfectants; Candles.
10	Nairobi Oil Products Ltd. †	1970	P.O. Box 48426, NAIROBI.	NAIROBI 557414	Lunga Lungu Road, Industrial Area, Nairobi.	A	Wood Preservatives.
11	Finer Laboratories Ltd. .††	1957	P.O. Box 18244, NAIROBI.	NAIROBI 556555	Isiolo Road, Industrial Area, Nairobi.	C	Mineral Supplements; Vitamins; Animal Feeds.
12	Polysynthetics (E.A.) Ltd. †	1958	P.O. Box 30467, NAIROBI.	NAIROBI 557744	Mugadishu Road, Industrial Area, Nairobi.	B	Synthetic Resin Emulsions.

C-8-42

SERIAL NO	NAME OF FIRM	YEAR FIRM ESTABLISHED	POSTAL ADDRESS	TELEPHONE	LOCATION	SIZE OF FIRM CODE	PRODUCTS MANUFACTURED
	Div- Major Group sion: Group 3550) cont. Manufacture of rubber products.						
09	Highland Tyre Retreading Co. †	1961	P.O. Box 1086, NAKURU.	NAKURU 2681	Industrial Area, Nakuru.	A	Retread Tyres.
10	Kenya Retreaders Ltd. †	1974	P.O. Box 83857, MOMBASA.	MOMBASA 26189	Lilani Road, Mombasa.	A	Retread Tyres.
11	National Retreaders Ltd. †	1961	P.O. Box 49308, NAIROBI	NAIROBI 558626	Basia Road, Industrial Area, Nairobi.	B	Retread Tyres.
12	No-Tread Tyres Ltd. †	1968	P.O. Box 488173, NAIROBI	NAIROBI 558191 & 558664	Chephero Road, Industrial Area, Nairobi.	B	Car & Truck Retread Tyres; Casings; New Tyres; Bicycle Tyres.
13	Plastic & Rubber Industries Ltd. †	1965	P.O. Box 46957, NAIROBI	NAIROBI 558605	Basia Road, Industrial Area, Nairobi.	C	Sponge; Rubber & Soling Sheets; Rubber Straps for Sandals; Rubber Beach Sandals; Rubber Soles for Sandals; Unvulcanized Rubber Compound; Retread Tyres; Rubber Resin Soling Sheets.
14	Rubber Products Ltd. †	1969	P.O. Box 18410, NAIROBI	NAIROBI 557368	Bandari Road, Industrial Area, Nairobi.	A	Camel Back (for use in Tyre Retread- ing).
15	Vacuum Traction Tyres (K) Ltd. †	1952	P.O. Box 45041, NAIROBI	NAIROBI 559210/9	Bandari Road, Industrial Area, Nairobi.	C	Retread Tyres; Rubber Products; Diachard Reblugging.

C-8-43

SERIAL NO	NAME OF FIRM	YEAR FIRM ESTABLISHED	POSTAL ADDRESS	TELEPHONE	LOCATION	SIZE OF FIRM CODE	PRODUCTS MANUFACTURED
	Division Major Group Group 3900 cont. Other manufacturing industries.						
02	African Cotton Industries Ltd. †	1960	P.O. Box 90324, MOMBASA.	MOMBASA 26970	Lusaka Road, Mombasa.	D	H.Q. Cotton Wool; Medicott Sanitary Towels; BPC. Cotton Wool; Absorbent Gauze; H.Q.B.P.C. Gauze; White B.P.C.Lint; Cotton Waste; Rauage.
03	African Culture Sejever Industry. ††	1971	P.O. Box 42774, NAIROBI.	-	Tom Mboya Street, Nairobi.	B	Ornaments.
04	Afro Asian Curios (K) Ltd. †	1964	P.O. Box 46517, NAIROBI.	NAIROBI 26282 & 22594.	Kinathi Street, Nairobi.	A	Handbags; Ivory Handcrafts & Ivory Jewellery.
05	Alic Jewellers. † †	1955	P.O. Box 83056, MOMBASA.	MOMBASA 26653	Old Kilindini Road, Mombasa.	A	Gold Ornaments; Gold Silver Ornaments; Bracelets; Pendants & Rings.
06	Bethany Bookshop. †††	1966	P.O. Box 211, NAKURU.	NAKURU 2695	Kenyatta Avenue, Nakuru.	B	Artificial Feather Flowers.
07	Bircidelli Signs Ltd. †	-	P.O. Box 30343, NAIROBI.	NAIROBI 21132 & 23444	Sirona House, Kaunda Street, Nairobi.	A	Engravers; Neon Sign Makers.
08	Caribonium (E.A.) Ltd. †	1963	P.O. Box 49177, NAIROBI.	NAIROBI 28340 & 29586	Haile Selassie Avenue, Nairobi.	B	Carbon Papers; Typewriter Ribbon Rolls; Duplicating Stencils.

C-8-44

SERIAL NO	NAME OF FIRM	YEAR FIRM ESTABLISHED	POSTAL ADDRESS	TELEPHONE	LOCATION	SIZE OF FIRM CODE	PRODUCTS MANUFACTURED
68	Divi-Major Group Division Group 3121 cont. Keritor Ltd.		P.O. PRIVATE BAG, SOTIK.	SOTIK 2 Y 5	Kisii District	D	Tea.
69	Kiphche Ltd.		P.O. PRIVATE BAG, SOTIK.	SOTIK 2 Y 5	Kisii District.	D	Tea.
70	Kitumbi Tea Factory Managing Agents: James Finlay & Co. Ltd.	1933	P.O. Box 72244, NAIROBI.		Kericho District	D	Black Tea
71	Mataara Tea Factory		P.O. Box 107, THIKA	NAIROBI 31424	Finlay House, Mfangano Street, Nairobi.		
72	Saosa Tea Factory	1934	P.O. Box 72244, NAIROBI.	RADIOCAL NAIROBI 2217	Muranga District	C	Black Tea
02	Managing Agents: James Finlay & Co. Ltd. (1) Same as Kianjokoma Tea Factory (see 3121/35 page 26) 3219 cont. Seracoatings Ltd.	1973	P.O. Box 72244, NAIROBI.	NAIROBI 31424	Finlay House, Mfangano Street, Nairobi.	D	Black Tea
			P.O. Box 48425, NAIROBI.	NAIROBI 556811	Lusingeti Road, Nairobi.	A	P.V.C. Coated Fabrics; P.V.C. Coated Paper; Plastic Baby Pants.

C-8-45

APPENDIC C

TABLE C-9

NUMBER AND SIZES OF FIRMS CON-
TACTED AND INTERVIEWED

Table C-9

**FIRMS CONTACTED AND INTERVIEWED,
LISTED IN THE DIRECTORY OF INDUSTRIES**

I.S.I.C.	SUBSECTOR	Total Contacted	Total Interviewed	Positive Responses	Total in Subsector	SIZE CLASSES ^{1/}					
						Total C - F	C	D	E	F	
3111	Slaughtering, preparing and preserving meat	2	1	1	4	2	-	-	1	1	
3112	Manufacturing of dairy products	1	1	1	10	3	1	-	1	1	
3113	Canning and preserving of fruits and vegetables	3	1	-	12	6	1	2	1	1	
3115	Manufacture of vegetable and animal fat	4	3	3	9	5	2	3	-	-	
3116	Grain mill products	6	3	-	49	7	4	1	-	2	
3117	Manufacture of bakery products	3	3	1	43	9	6	1	-	2	
3118	Sugar factories & refineries	5	5	5	5	5	-	-	1	4	
3119	Manufacture of cocoa, chocolate, sweets	1	1	-	10	4	4	-	-	-	
3121	Manufacture of food products not elsewhere classified	15	8	-	53	33	22	7	3	1	
3121	Manufacture of prepared animal feeds	3	2	-	12	4	2	-	2	-	
3133	Malt liquors	1	-	No appointments were available							
3140	Tabacco manufacture	1	1	1	1	1	-	-	-	1	
3134	Soft drinks	2	1	-	10	-	-	-	-	-	
3211	Spinning, weaving & finishing textiles	4	2	-	27	4	-	-	1	3	
3216	Cotton ginning and ginneries	2	2	2	9	4	4	-	-	-	
3311	Saw mills, planing and other woodmills	5	2	-	96	36	24	6	5	1	
3511	Manufacture of basic industrial chemicals, excl. fertilizer	1	1	-	5	1	-	-	1	-	
3512	Phyrrathrum extraction	1	1	1	1	1	-	-	-	1	
3514	Manufacture of fertilizer and pesticides	9	9	9	11	-	-	-	-	-	
<u>Other firms</u>											
	Agricultural equipment	6	6	2	6	-	-	-	-	-	
	Veterinarians	2	2	2	2	-	-	-	-	-	
	Consulting engineers	16	16	-	2	-	-	-	-	-	
	Financial institutions (banks)	3	3	-	-	-	-	-	-	-	
<u>Miscellaneous</u>		8	3	-	11	6	1	2	3	-	
		104	77	28	390	130					

^{1/} Size Classes: C 50 - 99 employees
D 100 - 199 "
E 200 - 499 "
F Over 500 "

APPENDIX D

RATES

Appendix D

RATES

Three types of rates were determined: (1) Retirement rates, R; (2) Outflow (or wastage) rates, W; and (3) Manpower Growth Rates, G; for the agricultural sector and its subsectors. Rates are presented below in Tables D-1 (R), D-2 (W), and D-3 (G).

When rates were applied in the study, they were applied by educational level and by professional specialty. Generally, rates vary with these categories although they may be similar or identical.

Appendix D-1

RETIREMENT RATES

A. MODEL RATES

Retirement rates can be calculated under a steady stream assumption. This assumes that personnel serve a constant number of years in service.

Assume:

- x professionals enter each year and leave each year
- y number of years in service
- xy total number of professionals in service

$$\text{Then retirement rate } R = \frac{x}{xy} \% = \frac{1}{y} \%$$

Assume further a constant retirement age but entry ages which vary with degree level:

<u>Retirement Age</u>		<u>Service Entry Age</u>	<u>Length of Service (y)</u>	then	<u>Model Retirement Rate</u>
55	PhD	30 to 35	25 to 20		4.0% to 5.0%
55	MS	28 to 25	27 to 25		3.7% to 4.0%
55	BSc	25 to 28	30 to 27		3.3% to 3.7%
55	Dipl	23 to 25	32 to 30		3.1% to 3.3%
55	Cert	20	35		2.85%

These model rates do not correspond to the actual employment record, particularly in subject matter specialties or degree levels which were recently established and where no significant retirement is expected. They are most useful as a check on upper limits for retirement categories and to estimate age composition of the different employment categories.

B. CALCULATED RATES

Rates for each specialist class within each educational level were calculated separately for each of the major organizational categories included in the survey:

- MOA Field Staff and Other Ministries
- MOA Headquarters
- Regulatory Boards
- Public and Mixed Commercial Firms
- Manufacturers of Fertilizer and Pesticides
- Sugar Factories and Refineries

The primary source for these data is an analysis of field personnel records submitted to Complement Control, which contain simultaneous information on grade and age. This information was classified and summed and the numbers retiring were determined. From these, annual retirement rates were calculated. These rates are linear and not compound rates, but they apply to the four year intervals for which they were calculated. These data were compared with survey data, and any disparities were reconciled before arriving at the rates listed in Table D-1. The following paragraphs discuss the data, information and reasoning that went into the final set of retirement rates.

(i) MOA Field Staff and 'Other Ministries'¹

(a) Masters of Science and Bachelors of Science

(1) There are few Masters or Bachelors at retirement age, but some AOIs, IIS, SAOs, etc., and above are likely to be replaced by graduates. While the retirement rate for those classes in general is larger than 0.4, only a few are in potential MSc/BSc positions, and therefore the contribution made by them to the rate of this class is relatively small.

Survey results give a retirement rate for the above grades around 3.8% which would indicate a superannuation as the steady state allows for only 3.7% at a maximum.

¹Unlike MOA, survey data for Other Ministries do not distinguish between headquarters and field service. Since MOA headquarters staff is small relative to field service, rates established for the field services of MOA were judged to be closest to retirement rates applicable to agricultural personnel of other ministries.

Table D-1 RETIREMENT RATES UTILIZED

<u>MASTER OF SCIENCE</u>	MOA field staff and other Ministries		MOA HQs		Regulatory Boards		Public and mixed Comm firms		Manufacturers of Fertilizers & Pesticides		Sugar Factories and Refineries	
	'83	'88	'83	'88	'83	'88	'83	'88	'83	'88	'83	'88
<u>Public Sector</u>												
1. General Agriculture	00.4	00.3	0.4	0.3	4.0	4.0	5.0	5.0	0.3	0.3	0.0	0.0
2. Agricultural Economics	00.1	00.1	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
3. Horticulture	0	0	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
4. Food Technology	0	0	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
5. Home Economics	0	0	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
6. Agricultural Education	0.1	0.1	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
7. Land & Farm Management	0	0	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
8. Agricultural Engineering	00.1	00.1	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
9. Range Management	1.0	0.5	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
10. Animal Husbandry	00.3	00.2	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
11. Dairy Technology	000	000	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
12. Veterinary Medicine	3.1	2.8	0.43	0.43	↓	↓	↓	↓	↓	↓	↓	↓
13. Animal Health	0.8	0.8	0.8	0.8	↓	↓	↓	↓	↓	↓	↓	↓
(14) Research	--	--	0.0	0.0	↓	↓	↓	↓	↓	↓	↓	↓
<u>Private Sector</u>												
21. Executive	--	--	--	--	↓	↓	5.0	5.0	↓	↓	↓	↓
22. General Manager	--	--	--	--	↓	↓	5.0	5.0	↓	↓	↓	↓
23. Technical Manager	--	--	--	--	↓	↓	3.0	3.0	↓	↓	↓	↓
24. Loan Officer, Accountant	--	--	--	--	↓	↓	↓	↓	↓	↓	↓	↓
25. Sales, Marketing Repr.	--	--	--	--	↓	↓	↓	↓	↓	↓	↓	↓
26. Research Scientist	--	--	--	--	↓	↓	↓	↓	↓	↓	↓	↓
27. Laboratory Technician	--	--	--	--	↓	↓	↓	↓	↓	↓	↓	↓
28. Agronomist	--	--	--	--	↓	↓	↓	↓	↓	↓	↓	↓
30. Other	--	--	--	--	↓	↓	↓	↓	↓	↓	↓	↓

D1-3, Table D-1

BACHELOR OF SCIENCE	MOA field staff and other Ministries		MOA HQs		Regulatory Boards		Public and mixed Comm firms		Manufacturers of Fertilizers & Pesticides		Sugar Factorie. and Refineries	
	'83	'88	'83	'88	'83	'88	'83	'88	'83	'88	'83	'88
<u>Public Sector</u>												
1. General Agriculture	00.4	00.3	0.4	0.2	4.0	4.0	5.0	5.0	0.3	0.3	0.0	0.0
2. Agricultural Economics	00.1	00.1	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
3. Horticulture	0	0	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
4. Food Technology	0	0	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
5. Home Economics	0	0	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
6. Agricultural Education	0	0	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
7. Land & Farm Management	0	0	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
8. Agricultural Engineering	00.1	00.1	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
9. Range Management	1.5	1.0	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
10. Animal Husbandry	00.3	00.2	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
11. Dairy Technology	000	000	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
12. Veterinary Medicine	3.1	2.8	0.43	0.43	↓	↓	↓	↓	↓	↓	↓	↓
13. Animal Health	0.8	0.8	0.0	0.0	↓	↓	↓	↓	↓	↓	↓	↓
(14) Research					↓	↓	↓	↓	↓	↓	↓	↓
<u>Private Sector</u>												
21. Executive	--	--	--	--	↓	↓	5.0	5.0	↓	↓	↓	↓
22. General Manager	--	--	--	--	↓	↓	5.0	5.0	↓	↓	↓	↓
23. Technical Manager	--	--	--	--	↓	↓	3.0	3.0	↓	↓	↓	↓
24. Loan Officer, Accountant	--	--	--	--	↓	↓	↓	↓	↓	↓	↓	↓
25. Sales, Marketing Repr.	--	--	--	--	↓	↓	↓	↓	↓	↓	↓	↓
26. Research Scientist	--	--	--	--	↓	↓	↓	↓	↓	↓	↓	↓
27. Laboratory Technician	--	--	--	--	↓	↓	↓	↓	↓	↓	↓	↓
28. Agronomist	--	--	--	--	↓	↓	↓	↓	↓	↓	↓	↓
30. Other	--	--	--	--	↓	↓	↓	↓	↓	↓	↓	↓

CERTIFICATES	MOA field staff and other Ministries		MOA HQs		Regulatory Boards		Public and mixed Comm firms		Manufacturers of Fertilizers & Pesticides		Sugar Factorie and Refineries	
	'83	'88	'83	'88	'83	'88	'83	'88	'83	'88	'83	'88
<u>Public Sector</u> -												
1. General Agriculture	3.0	3.0	--	--	2.5	2.5	3.0	3.0	0.3	0.3	3.5	3.5
2. Agricultural Economics	0	0	--	--								
3. Horticulture	2.0	2.0	--	--								
4. Food Technology	00.5	00.4	--	--								
5. Home Economics	0	0	--	--								
6. Agricultural Education	3.0	3.0	--	--								
7. Land & Farm Management	3.0	3.0	--	--								
8. Agricultural Engineering	1.0	1.0	--	--								
9. Range Management	0.6	0.5	--	--								
10. Animal Husbandry	2.0	2.0	--	--								
11. Dairy Technology	1.0	1.0	--	--								
12. Veterinary Medicine	2.0	2.0	3.0	3.0								
13. Animal Health	2.0	1.9	2.0	1.9								
(14) Research	--	--	11.0	11.0								
<u>Private Sector</u>												
21. Executive	--	--	--	--			5.0	5.0				
22. General Manager	--	--	--	--			5.0	5.0				
23. Technical Manager	--	--	--	--			3.0	3.0				
24. Loan Officer, Accountant	--	--	--	--								
25. Sales, Marketing Repr.	--	--	--	--								
26. Research Scientist	--	--	--	--								
27. Laboratory Technician	--	--	--	--								
28. Agronomist	--	--	--	--								
30. Other	--	--	--	--								

D1-6, Table D-1

(2) Agricultural Economics. No numerical data are available. However, it is assumed that some staff members will retire from this category, primarily foreign trained Kenyans or expatriates who are assumed to retire or vacate the positions in 1979-88.

(3) to (7), Horticulture, Food Technology, Home Economics, Agricultural Education, Land and Farm Management. None of these classes contain anyone who would retire in the interval under consideration by the study. All subjects, with the exception of Agricultural Education are recent. Although Agricultural Education has long been established, no graduates are in the class (see Diploma and Certificate Holders).

(8) Agricultural Engineering. None of retirement age. See Diplomas and Certificate Holders.

(9) Range Management. Data for this class are scant but indications are that they may be considerably higher than the average calculated for the university classes as a whole. While few graduates, if any, are in the class and none who will retire during the study period, SROs and ROs in administrative positions who retire will likely be replaced with graduates.

Information from the field would indicate a retirement rate of above 2.5%, but the sample is very small. Complement Control estimates an overall rate closer to 1%. We have adopted 1.5% for the first four-year period and 1% for the second.

(10) Animal Husbandry. The animal husbandry class is composed of veterinary graduates and of diploma and certificate holders with general agricultural training. It was only established as a separate university specialty in 1969, so graduates from that specialty would not be of retirement age in 1988. Since many of the positions in this class would be occupied by senior personnel with a general agricultural background, we have adopted a rate one-tenth of a percent below that of the general agricultural class.

(11) Dairy Technology is a very recent specialty and no retirements are expected in the survey interval.

(12) Veterinary Medicine. This class as set up in the survey and also as composed in the field includes both university graduates and livestock

officers with the Diploma degree. The respective curriculum was only established in 1968 and few graduates before that date are in service. Prior to this date the veterinary service was primarily staffed by LOs and a few graduates who went from diploma training to a degree shortly after independence. Survey records for the mixed class yield a retirement rate of 3.07%. Complement Control indicates a rate of 0.43 for the graduates alone. As these rates apply to the field composition, we have applied 3.1% for 1978/83 and, declining, 2.8% for 1983/88.

(13) Animal Health. Field data yield a rate of 0.77%. In the survey, Animal Health responses were included with range management, animal husbandry and veterinary medicine, and it is likely that the above rate is not a 'pure' rate either.

(b) Diploma Holders

(1) General Agriculture. The rate is calculated at 1.39% from survey data, and it is assumed that it will drop slightly in the future. All changes in retirement rates in the second four-year period are toward lower figures. This is because there is currently a slight superannuation in the service because indigenous curricula were established or expanded several years after independence. Curtailed supply with expanding opportunities in the service during the sixties to the mid-seventies would result in longer than scheduled service terms.

(2) Agricultural Economies. Not applicable.

(3) Horticulture. A recent subject which graduated its first diplomants in 1972. None of those trained will retire in the period considered. It is assumed that those reported in this category had a general agricultural background.

(4) Food Technology. Survey interviews indicate that most of these positions are filled by diploma holders, in some cases by certificate holders. Most appear to be in mid- to early career and few retirements are expected.

(5) Home Economics. A recent subject in which diplomants were first produced in 1971. No retirements are expected.

(6) and (7) Agricultural Education and Land and Farm Management.

No separate data for these two specializations were available, and it is reasonable to assume that personnel age distribution is identical with that of the general agricultural class.

(8) Agricultural Engineering. Not applicable. None of the Egerton graduates are due to retire, but the survey lists individuals who were trained prior to independence or who collected experience prior to independence and thereafter.

(9) Range Management. Calculations give an average rate slightly higher than for general agriculture. It is expected that the retirement rate will drop in the second four-year period as younger range officers will predominate.

(10) Animal Husbandry. Introduced as a separate subject in 1969, this category is still mostly staffed by general agriculturists. A rate slightly lower than that for general agriculture was adopted.

(11) Dairy Technology. See comments under (4) above. However, survey interviews indicated dairy staff to be more established and experienced, so that a higher retirement rate was estimated.

(12) Veterinary Medicine. There are no diploma holders in veterinary medicine, strictly speaking. The survey returns listed under this class represent a mixture of animal health and animal husbandry officers. Therefore, a retirement rate interpolated between those specialists is used.

(13) Animal Health. A retirement rate of 3.68% is calculated on a relatively small sample from field returns, which would indicate slight superannuation. An initial rate of 3.6% is adopted for the first period and then lowered to 3.0% for the second four-year period when older staff have retired and younger diplomants will predominate.

c. Certificate Holders

(1) General Agriculture. The rate applied here is based on several diverging data sources but is believed to be the most probable. Personnel data from the provincial headquarters available in Complement Control yield a rate of 2.7%. A smaller sample from the survey

questionnaires indicates a 5.0% retirement rate. This latter ratio in all likelihood represents an overestimation and may include under the certificate category JAA's who by experience and seniority may be in positions which are now considered to require a certificate. If so, they would be close to or above retirement age. Steady state calculation indicates an average retirement rate of 2.85. Complement Control estimates that the applicable rate may be high but certainly below 3.5%. R = 3.0% was adopted.

(2) Agricultural Economics. Not applicable.

(3) Horticulture. It is assumed that approximately two-thirds listed under horticulture in the survey are of general agricultural background and fit the respective age distribution, and about one-third are younger. This yields a retirement rate of 2.0%.

(4) Food Technology. See comment under (4), Diploma Holders.

(5) Home Economics. Not applicable.

(6) Agricultural Education. Age composition is the same as under (1) above and the same rate applies.

(7) Land and Farm Management. Age composition is the same as under (1) above and the same rate applies.

(8) Agricultural Engineering. See comments under (8), Diploma Holders.

(9) Range Management. A very small sample extracted from field returns yields a rate of 1.7%, but Complement Control indicates a rate closer to 0.5%. Both figures imply a relatively young cadre.

(10) Animal Husbandry. The assumption here is that survey returns which cite Animal Husbandry include a mixture of AHITI, Embu and Bukura graduates with a slight emphasis on younger professionals as the subject specialty has been separated from general agriculture relatively recently.

(11) Dairy Technology. See comments under (11), Diploma Holders, above. The slightly higher rate used here is based on survey interviews.

(12) Veterinary Medicine. See comments under (12), Diploma Holders, above.

(13) Animal Health. Calculated from field returns as 2.0%.

(ii) Ministry of Agriculture, Headquarters

Retirement data on headquarters staff was segregated from data on the field staff. Staff not actually located in the headquarters but under administrative direction of the headquarters are not included here but under provincial returns with the exception of Research personnel.

Headquarters staff consists predominantly of graduates. At the degree level practically no retirements are due in the period 1977 to 1988. Research assistants at the Diploma level retire at close to the normal retirement rate, but Certificate holders who have filled in diploma positions are apparently being retired at an accelerated rate.

Retirement rates for Veterinary Medicine at 0.43% are higher, because veterinary medicine positions have always been staffed by degree holders. In addition, there appears to be a slight superannuation in the class.

(iii) Regulatory Boards

Retirement rates were established during survey interviews. Executive positions are generally staffed with degree holders who have frequently served a full term in government before their appointment. This explains a rate of 4.0%.

Staff at the Diploma and Certificate level also generally had previous service in the government, usually in the Ministry of Agriculture. Consequently, retirement rates are close to the model rates but slightly lowered by recent installation of younger staff.

(iv) Public and Mixed Commercial Firms

Current and expected retirement figures in the public and mixed commercial firms are relatively high. For university graduates it ranges between 5.0% and 3.0% and best indications are that a rate of 3.0% also applies to diploma and certificate holders.

Many of the executives in this category already have a government career behind them and are in the higher age bracket. Others,

although they may not actually have a degree, hold their current position because of experience and managerial capabilities. All indications are that those executives will be succeeded by degree holders.

Interviews indicate that diploma holders and certificate holders frequently had many years experience in the government prior to joining the commercial sector. Therefore, they also tend to be in higher age brackets.

(v) Manufacture of Fertilizers and Pesticides

This subsector was treated separately because exceptionally detailed information was available from firms interviewed and other firms comprising the rest of the total sector. Retirement rates are universally low. Those due for retirement over the 1977-88 period are primarily expatriate managers and other expatriate personnel. In many cases private industry is likely to replace senior managers out of the firm's international pool, thus placing, for the moment, no demand on Kenyan institutions. In other cases, these senior positions may be filled from middle management which then opens up positions for junior managers who are now frequently Kenyan graduates and who in turn will be replaced by Kenyan graduates. This movement increases the training requirement on Kenyan institutions. A combination of these factors sets a probable average rate at about 0.3% for BSc+ graduates. There are relatively few diploma holders and certificate holders in those private sectors which are concerned with import, representation and distribution of goods.

(vi) Sugar Factories and Refineries

Practically no university graduates are expected to retire in the survey period; the age of management personnel is in the late thirties and mid-forties.

Diploma and certificate holders, however, are in the upper retirement ranges because they have been drawn from the more experienced groups in the government service and hence tend to be older.

Appendix D-2

SECTORAL OUTFLOW AND INTRASECTORAL FLOW

A. SECTORAL OUTFLOW

The objective of the study is to determine total training demand on the agricultural academic institutions in Kenya. Just as retirement increases training requirements, personnel leaving the agricultural sector for other reasons also increases training requirements to make up for the manpower loss. In this connection, only the loss from the total agricultural sector is of import, and this appears to be minute. Only a few individuals were identified who left public service and neither took employment in the private sector nor went to training. In those cases it was reasonable to assume, and in two cases it was established, that they went to work their own farm. Of course, in the general sense, they remained within the agricultural sector but not in that part of the sector which commonly utilizes academically trained agricultural manpower.

The outflow rate of 0.5%, which we have assumed for sector outflow calculations, is certainly higher than data that could be collected indicate, but it is likely that the latter information is incomplete. This rate implies the loss from the sector of only one out of two hundred trained agriculturists per year. At the certificate and diploma level, this is certainly within the general error of the study. It is possible that more graduates are lost through employment in foreign countries, but this could not be established. The number lost to foreign employers is likely to be smaller than the number of graduates returning from overseas training.

An outflow rate was not applied to any of the public sector data. There is practically no loss from the total sector which occurs directly from the public sector, other than retirement. We assume, therefore, that the private sector constitutes a general 'sink' for all intrasectoral manpower movements and that any loss occurs from that sector.

B. INTRASECTORAL PERSONNEL FLOWS

Although wastage from the total agricultural sector is negligible, transfers within the sector are significant. They are of particular concern to the Ministry of Agriculture and other ministries employing agriculturally trained staff.

Through questionnaires and interviews the study established detailed intrasectoral flow rates. Outflow rates from particular subsectors to other subsectors and from particular occupational classes of a subsector to another subsector vary from a few percent to 50% or more. But these rates define only movements within the total sector and do not influence total training requirements.

Figure D2-1 indicates major movements through a schematic representation of the agricultural sector. The flow vectors are designated as A_1 , A_2 , A_3 , etc., indicating common lines of movement within the sector.

Transfers from the public to the private sector are almost unidirectional as indicated by the vectors A, B and C. While a return flow exists, it is very small and no quantitative data on its size are available. There is some reciprocal flow along vectors D, E, and F, but again it is small and no data are available. Losses from the total sector (here assumed to occur via the private subsector) is probably less than 0.5%.

Vectors A_1 , A_2 , and A_3 combined amount to an average annual loss to the MOA headquarters of 12 BSc+, 0.5 Diplomants, and no Certificate holders (Table D2-2).

The average wastage rates are based on questionnaires and interview information and calculated from actual departures. Available data do not permit differentiation among A_1 , A_2 , and A_3 vectors.

Wastage rates from MOA District offices are somewhat smaller, especially for graduates. This is partially due to the fact that the private sector recruits mostly in Nairobi and from the ministries, primarily because the ministries have the highest need for graduates and the rate of posting in the provinces has been small due to constrained

D2-3

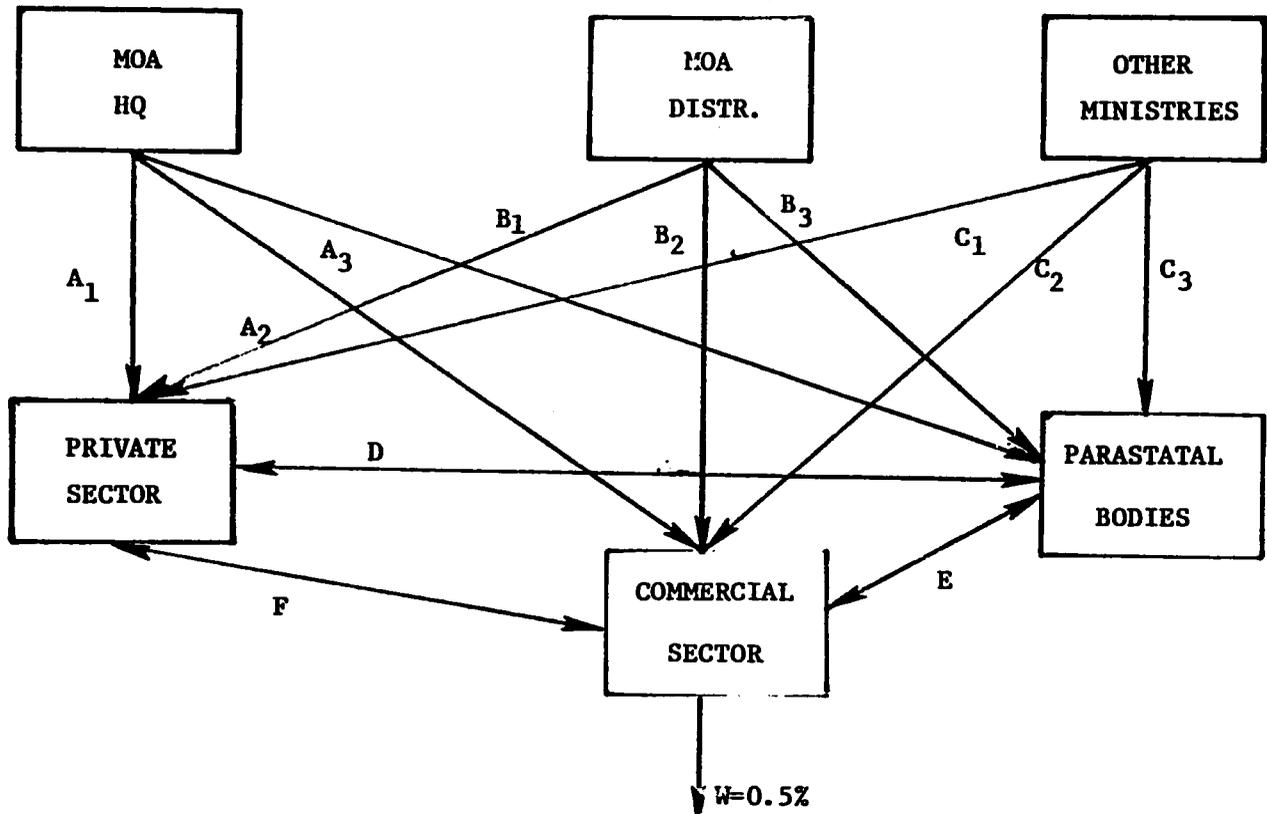


Figure D2-1. Schema of Intrasectoral Personnel Flows

Table D2-2. Average Annual Wastage from MOA Headquarters

	<u>1977 In Post</u> No.	<u>Wastage Rate</u> %	<u>Total Wastage (A)</u> No.
BSc+	77	15.5	12
Diplomant	11	5.0	0.5
Certificate	--	--	--

(Source: Appendix G1, Computer Printout: MOA Headquarters)

supply. However, because of the larger base numbers, on average the field loses manpower to the private-commercial subsector as follows (Table D2-3):

Table D2-3. Average Annual Wastage from MOA District Offices

	<u>1977 In Post</u> No.	<u>Wastage Rate</u> %	<u>Total Wastage (A)</u> No.
BSc+	219	10.8	24
Diplomant	531	4.3	23
Certificate	2112	1.9	40

(Source: Appendix G2, Computer Printout: All Provinces)

These rates are calculated from departures from the service as provided by district officials.

We were able to calculate from questionnaire data wastage rates from the districts to the particular destination of the departing staff member (Table D2-4). Numbers given in parentheses are so small that their reliability is questionable. Here, as at Headquarters, the total transfers to other subsectors are relatively small compared to the total work force, indicating low mobility between subsectors. However, given a relatively

small supply of graduates, losses appear high when compared to the size of the annual graduating class and the number of professionals needed in agriculture.

Table D2-4. Wastage from Districts to Subsectoral Destinations

	1977 In Post	Private Commercial		Parastatal Bodies		Educational Institutions		Farming		Total/Yr
		W %	Tot	W %	Tot	W %	Tot	W %	Tot	
BSc+	219	8.0	18	2.9	6	0.7	2	0	0	26
Dipl.	531	3.5	19	0.5	2	0.5	2	(0.4)	(1)	24
Cert.	2112	1.5	32	(0.1)	(2)	(0.06)	(1)	(0.06)	(1)	36

Wastage from the Ministry of Agriculture as a total varies considerably among disciplines, indicating particular needs in the other subsectors. Based on calculated wastage rates and on qualitative information on current and future demand patterns gained from interviews, we have made estimates for the wastage rates of the thirteen disciplines distinguished in the survey. They are listed in Table D2-5 where wastages by specialties are calculated.

Wastage rates above 20% should be understood as probability statements, e.g., the probability that somebody with a BS. in food technology will transfer out of MOA, per year, over the next six years is 95%. That is, the demand at this time lies totally in the private-commercial sector, which also has the financial means to back up its demand.

Recent wastage rates from MOA headquarters have been very high in the BSc+ category and in certain specialties (20%-50%), but the wastage rates given in Table D2-5 can be taken as an approximation of probable loss rates from the Ministry of Agriculture for different specialties. These should be applicable to the 1983 demand data, after which date predictions of demand become uncertain.

Table D2-5. Wastage from MOA by Specialties, 1977

	BScts			Diplomants			Certificates		
	<u>BSc+</u> 1977	W%	Total W _B	<u>Dipl.</u> 1977	W%	Total W _D	<u>Cert.</u> 1977	W%	Total W _C
1. General Agriculture	229	6.0	14	259	4.0	10	1468	1.0	15
2. Agric. Economics	17	12.0	2	0	10.0	0	0	0	0
3. Horticulture	7	2.0	95	21	4.3	1	13	2.0	0.25
4. Food Technology	0	95.0	0	0	95.0	0	0	95.0	0
5. Home Economics	9	5.0	0.5	66	3.0	2	85	0	0
6. Agric. Education	16	14.0	2	34	4.3	1.5	61	2.0	1
7. Land and Farm Management	37	6.0	2	61	4.3	2.5	132	2.0	3
8. Agric. Engineering	12	30.0	4	4	25.0	1	0	12.0	0
9. Range Management	30	6.0	2	52	4.3	2	119	1.0	1
10. Animal Husbandry	83	5.0	4	237	2.0	5	1128	1.0	11
11. Dairy Technology	0	95.0	0	2	95.0	2	8	20.0	1
12. Veterinary Medicine	202	5.0	10	68	3.0	2	387	2.0	8
13. Animal Health	0	13.0	0	0	4.0	0	18	4.0	0.75
			<u>41</u>			<u>29</u>			<u>41</u>

Note: Entries larger than 20% are to be understood as probability statements. See text.

Wastage rates similar to those applied in Table D2-5 (districts) may be applied to the sum of other ministries which employ agriculturally trained staff mainly in the field. The results are shown in Table D2-6.

Table D2-6. Wastage from Other Ministries

	<u>1977 In Post</u>	<u>Private Commercial</u>		<u>Parastatal Bodies</u>		<u>Educational Institutions</u>		<u>Farming</u>		<u>Total Loss Per Year</u>
		W %	No	W %	No	W %	No	W %	No	
BSc+	97	8.0	8	2.9	3	0.7	0.5	0	0	11
Dipl.	347	3.5	12	0.5	2	(0.5)	(1)	(0.4)	(1)	16
Cert.	528	1.4	7	(0.1)	(0.5)	(0.06)	(0.3)	(0.06)	(-)	8

(Source: Appendix G-1, Other Ministries)

However, the Ministry of Cooperative Development reported very high losses in 1976-77: 45% of BSc+, 38% of Diplomants; and 12% of Certificate holders. This is probably due to the fact that professionals and para-professionals schooled in the cooperative college are trained in subjects which are sought by and highly marketable in the commercial sector. It should be noted that those percentage figures are derived from a small base.

Wastage rates D, E, and F between the private sector, commercial sector and parastatal organizations are known to be very small, certainly below $w = 0.1\%$ and transfer is in very small numbers. Only F may be slightly larger due to the similarity of the two sectors. Backflows for A, B, and C do exist but are also numerically small and no exact data are available.

Appendix D-3

GROWTH RATES AND PROJECTIONS

Growth rates were established to allow projections to 1983 and 1988 when survey responses were incomplete. Very few sources are available, and extraction and calculation of manpower growth rates proved difficult and not very reliable.

There are two types of sources. (a) Statistical data were obtained from the Central Bureau of Statistics. These data were extracted manually from CBS files and related employment in agriculture by income groups. Wage levels were assumed to be equivalent to educational levels, and assignments were made on the basis of government pay scales in the public sector and on prevailing pay rates in the private sector. After this conversion, annual employment growth rates for graduates, diploma and certificate holders were calculated. Growth rates given in Table D3-1 present arithmetic averages over six and five-year intervals respectively. The rates are not compounded. (b) Growth rates collected by the survey for the private and commercial sector are quite variable. Over the past two years the number of bachelors increased at an annual rate of about 13 to 25%, diplomants at 10% to 25%, and certificate holders at around 2% to 10% in particular establishments. Some establishments anticipate growth rates of up to 45% in numbers of bachelors required. It must be kept in mind that one is dealing here with relatively small numbers and the the number of bachelors currently employed in private industry is still quite small, so that percentage growth rates appear exaggerated and erratic. Somewhat more coherent values could be obtained for that part of the commercial sub-sector which includes public firms with minority and majority ownership by the government.

Because of the extensive coverage of the sector by the survey, it was not necessary to rely on growth rates in estimating future training requirements except for the private sector. Growth rates were not applied

Table D3-1. Selected Agricultural Manpower
Employment Growth Rates

	<u>Estimated Average Linear Annual Growth Rate</u>
A. <u>Agricultural Wage Employment in Public Sector</u> (including non-professionals) (1970-76)	
Central Government	5.5%
Parastatal Bodies	9.0%
Firms with Majority Control by Public Sector	17.0%
Source: Kenya Economic Surveys 1970-76	
B. <u>Agricultural Employment (1972-76)</u>	
Central Government	
BSc+	14.7%
Diplomants	9.4%
Certificates	14.7%
Other Public Sector Agencies	
BSc+	7.5%
Diplomants	20.0%
Certificates	40.0%
Total Central Government, Public and Private Sector	
BSc+	10.8%
Diplomants	17.5%
Certificates	21.0%
Source: Distribution of Wage Employment in Agriculture, 1972-76, special data extraction from CBS files, courtesy CBS.	
C. <u>Private Industry (1975-77)</u>	
BSc+	13%-25%
Diplomants	10%-25%
Certificates	2%-10%
D. <u>Mixed Commercial Firms (1975-77)</u>	
BSc+	7.0%
Diplomants	12.0%
Certificates	16.0%
Source: Survey questionnaires and interviews.	

Table D3-2. Growth Rates Utilized in Projections

	<u>Average Linear Annual Growth Rates</u>	
	<u>1977-83</u>	<u>1984-88</u>
<u>Mixed Commerical Firms</u> (including classes 080 and 210)		
MSc	7.0%	7.0%
BSc	10.0%	10.0%
Diplomants	5.0%	5.0%
Certificates	10.0%	10.0%
<u>Private Industry</u> (fertilizer and pesticides)		
MSc	7.5%	15.0%
BSc	15.0%	30.0%
Diplomants	12.0%	25.0%
Certificates	10.0%	7.0%

to the public sector data, as discussed in Sections IA.4 and IA.6e of the text. However, the private-commercial sector was often reluctant to project beyond two to three years. Hence, in cases where no 1983 or 1988 estimates were given, the computer was programmed to project with rates listed in Table D3-2, provided 1977 in-post or 1983 demand figures were given by the industry.

This application of growth rates in the private sector assumes that the economy will continue to expand and hence the private sector will continue to hire (in addition to Kenyanizing positions) at similar rates. Interviews indicated a recent swell in hiring, especially of bachelors, which may have temporarily attenuated the pronounced need of the private industry for prospective young executives. We projected, therefore, at a somewhat reduced average rate for private industry in the fourth plan period and allowed an acceleration in the fifth plan period.

APPENDIX E

SAMPLE EXPANSION OF TOTALS

Appendix E

SAMPLE EXPANSION TO TOTALS

The time available between the date when survey data became available and the development of the analytical and computational framework did not allow expansion of the samples to total subsectors prior to computer operations. Computer calculations were performed on the samples and all computer printouts in the private commercial sector refer to sample data. In the public subsector coverage is assumed to be 100% (see section IA.4), so the printouts are for the total subsector.

Coverage of the private/commercial sector was high, approximately 80%, so that expansion could be done on a firm by firm basis.

The following subsector data were expanded for the intervals indicated:

<u>I.S.I.C.</u>	<u>1977</u>	<u>1983</u>	<u>1988</u>
3111 Slaughtering, preparing and preserving of meat	✓	✓	✓
3112 Manufacture of dairy products	--	✓	✓
3113 Canning and preserving of fruits and vegetables	--	✓	--
3115 Manufacture of vegetables & animal oils & fats	--	✓	✓
3117 Manufacture of bakery products	--	✓	✓
3118 Sugar factories and refineries	✓	✓	✓
3121 Manufacture of food products n.e.c.	--	✓	✓
3133 Malt liquors and malt*	est.	est.	est.
-- Agricultural machinery	--	✓	✓
-- Financial institutions	--	✓	✓

* No data could be obtained for 3133, Brewery, and all figures were estimated.

Expansion was based on characteristics of the subsector as established from interviews of other firms in the subsector, size of the establishments, hence their likely mode of operation, and of information which could be provided by firms interviewed about other establishments in the subsector. The number of firms in each subsector as well as their sizes is known from the Directory of Industries published by CBS (see Appendix C, Tables C-8 and C-9). The ratio of firms employing trained manpower covered by the survey to those not covered was established. This ratio was used to estimate total manpower requirements by educational levels and specialties. However, final requirements were established by adjusting the calculated figures according to size and characteristics of individual firms. These were known from interviews in the respective sectors.

All in all, the manpower sample of the commercial/private sector as given in the computer printout was expanded for 1988 by a total of

MSc	30	or	33%
BSc	88	or	12%
Diplomants	105	or	8%
Certificates	190	or	30%

The differences in percentage expansion arise from the characteristics of the firms considered and from the timing of the anticipated sectoral expansions. For example, a need for 24 out of 30 masters is generated by the sugar industry and its anticipated expansion through 1988.

The only exception to this procedure was applied to the Regulatory Boards. Eighty percent of all regulatory boards were interviewed and a factor of 1.2 was applied to the sample requirements as calculated for 1983 and 1988.

These procedures established the total manpower demand in all agricultural subsectors utilizing trained agricultural manpower.



APPENDIX F

EXPLANATION OF COMPUTER CALCULATIONS

Appendix F

EXPLANATION OF COMPUTER CALCULATIONS

Table F-1 is a sample page from the computer printouts in Appendix G2. It will be used to explain calculations for training requirements.

- Column 0 lists professional specialities
- Column 1 lists professionals in post in 1977
- Column 2 gives existing demands in 1977 (not vacancies)
- Column 3 lists Kenyanization posts, program to be filled by Kenyan staff in 1983.
- Column 4 lists the applicable retirement rate, R. R in column 4 operates on 1977 in-post figures only and delivers the compounded retirement figure of numbers of persons retiring by 1983 in column 7. Column 7 lists only whole figures, although the computer carries fractions to the end of calculations rounding up or down only upon adding figures for column 17.
- Column 5 lists the applied outflow rate which has been set at zero in all public sectors and at 0.5 for all commercial sectors as explained in the text and Appendix D2. Outflow rate W operates on the in-post figures for 1977 and delivers the compounded figure in column 8. As with R, rounding is done in the print-out, but fractions are carried in the computer for further calculations up to column 17.
- Column 6 provides the growth rate of each professional specialty in the particular educational class. Growth rates were only utilized for calculations in private/commercial sectors as explained in the text and operated only under certain conditions: If there is an entry in column 1 but no projection for 1983 was given by the respondent for 1983 (i.e., no number, including zero), then the growth rate operates on the respective figure in column 1. However, if the respondent gave a projection, including the projection of no requirements, zero, then the growth rate was not applied. This operation was also built into the program for column 13.
- Column 7 lists the number of personnel retiring by 1983

EDUCATION : BACHELOR OF SCIENCE IN AGRICULTURE

FIELD OF SPECIALISATION	IN POST 1977	1977 KENYA			1983 PERCENTAGES			1983 WASTAGE			1983 TOTAL RECD.	1988 PERCENTAGES			1988 WASTAGE		1988 ADD. POSTS	1988 TOTAL RECD.
		ADD. NEW MEMS	-TION POSTS		RET	OUTF	GROW	RET	OUTF			RET	OUTF	GROW	RET	OUTF		
1 GENERAL AGRICULTURE	4	1	0	5.0	0.5	10.0	0	0	3	5	5.0	0.5	10.0	2	0	5	12	
2 AGRICULTURAL ECONOMICS	0	0	0	5.0	0.5	10.0	0	0	0	0	5.0	0.5	10.0	0	0	0	0	
3 HORTICULTURE	1	0	0	5.0	0.5	10.0	0	0	1	1	5.0	0.5	10.0	0	0	1	2	
4 FOOD TECHNOLOGY	10	0	0	5.0	0.5	10.0	2	0	6	9	5.0	0.5	10.0	3	0	9	22	
5 HOME ECONOMICS	0	0	0	5.0	0.5	10.0	0	0	0	0	5.0	0.5	10.0	0	0	0	0	
6 AGRICULTURAL EDUCATION	0	0	0	5.0	0.5	10.0	0	0	0	0	5.0	0.5	10.0	0	0	0	0	
7 LAND & FARM MANAGEMENT	2	0	1	5.0	0.5	10.0	0	0	0	2	5.0	0.5	10.0	1	0	2	4	
8 AGRICULTURAL ENGINEERING	1	1	0	5.0	0.5	10.0	0	0	2	3	5.0	0.5	10.0	1	0	2	6	
9 RANGE MANAGEMENT	3	2	0	5.0	0.5	10.0	0	0	3	5	5.0	0.5	10.0	1	0	5	12	
10 ANIMAL HUSBANDRY	0	0	0	5.0	0.5	10.0	0	0	0	0	5.0	0.5	10.0	0	0	0	0	
11 DAIRY TECHNOLOGY	0	0	0	5.0	0.5	10.0	0	0	0	0	5.0	0.5	10.0	0	0	0	0	
12 VETERINARY MEDICINE	3	0	0	5.0	0.5	10.0	0	0	2	3	5.0	0.5	10.0	1	0	3	7	
13 ANIMAL HEALTH	0	0	0	5.0	0.5	10.0	0	0	0	0	5.0	0.5	10.0	0	0	0	0	
21 EXECUTIVE	11	0	0	5.0	0.5	10.0	2	0	8	11	5.0	0.5	10.0	4	0	11	28	
22 GENERAL MANAGER	19	2	0	5.0	0.5	10.0	4	0	17	25	5.0	0.5	10.0	8	1	23	58	
23 TECHNICAL MANAGER	35	0	2	3.0	0.5	10.0	6	0	11	19	3.0	0.5	10.0	6	1	30	57	
24 LOAN OFFICER/ACCOUNTANT	0	0	0	3.0	0.5	10.0	0	0	0	0	3.0	0.5	10.0	0	0	0	0	
25 SALES/MARKETING REP.	0	0	0	3.0	0.5	10.0	0	0	0	0	3.0	0.5	10.0	0	0	0	0	
26 RESEARCH SCIENTIST	1	1	0	3.0	0.5	10.0	0	0	1	2	3.0	0.5	10.0	0	0	1	4	
27 LABORATORY TECHNICIAN	0	0	0	3.0	0.5	10.0	0	0	0	0	3.0	0.5	10.0	0	0	0	0	
28 AGRONOMIST	0	0	0	3.0	0.5	10.0	0	0	0	0	3.0	0.5	10.0	0	0	0	0	
30 OTHER	0	0	0	3.0	0.5	10.0	0	0	0	0	3.0	0.5	10.0	0	0	0	0	
TOTALS	90	7	3				19	1	57	88				31	2	96	218	

Column 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17

Table F-1

- Column 8 lists the number of personnel leaving the agricultural sector by 1983. No column is printed for requirements generated by growth (sector expansion) but the respective figure is included in the sum printed in column 10.
- Column 9 lists the number of personnel requested or needed to be in post by 1983.
- Column 10 sums columns 1,2,3,7,8,9 plus any needs generated by column 6. Thus column 10 gives the total training requirements for each discipline and educational level by 1983.

The following columns are analogous to columns 3 through 10:

- Column 11 operates on column 10 and delivers retirement figures in column 14, i.e., the number of individuals retiring between 1984 and 1988.
- Column 12 operates similarly and
- Column 13 operates on column 10 under the same conditions as outlined for column 6.
- Column 16 lists the number of professionals requested to be in post in 1988 and
- Column 17 delivers the total training demand by 1988 per professional specialty and educational level. Column 17 is cumulative combining the requirements carried from column 10 plus the requirements generated for 1984 to 1988. Thus, figures in column 17 give the total training requirements by 1988 since 1977.

Note: Training requirements in these printouts are calculated on the basis of total numbers of staff requested and projections therefrom. In Chapter I.C., budgetary growth rates are used to constrain the staff requests for MOA and the Other Public Sector to the number of staff who can be employed at those budget levels. The same sector wastage rates used in the original calculations are applied to the constrained requests to obtain the final training requirements.

APPENDIX H

**LIST OF DOCUMENTS, PUBLICATIONS
AND REFERENCE MATERIAL REVIEWED**

Appendix H

LIST OF DOCUMENTS, PUBLICATIONS
AND REFERENCE MATERIAL REVIEWED

Government of Kenya

Code of Regulations, Government Printer, Nairobi

Development Estimates 1977/78, Government Printer, Nairobi: 1977

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