

REPUBLIC OF KENYA,
MINISTRY OF LIVESTOCK DEVELOPMENT
COMMISSION OF THE EUROPEAN COMMUNITIES

PROVISION OF STAFF FOR THE
PROGRAMME MANAGEMENT UNIT
OF THE ASAL KENYA LIVESTOCK
DEVELOPMENT PROGRAMME

- Tender Price -

Mutiso Consultants Ltd
Development Management, Nairobi, Kenya

in association with

BMB
Management Consulting for Development B.V.
Tilburg, the Netherlands

P 1123/8930

August 1989

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PROVISION OF STAFF FOR THE
PROGRAMME MANAGEMENT UNIT
OF THE ASAL KENYA LIVESTOCK
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DRAFT CONTRACT

DRAFT TECHNICAL ASSISTANCE CONTRACT

Country: Kenya
Institution: Ministry of Livestock Development
Contract Amount:
Date of Notification:
Finance: Sixth European Development Fund
Title: ASAL Kenya Livestock Development
Programme - Management Unit
Accounting No.: 6100.35.32.029
Consultant: Mutiso Consultants Ltd

DRAFT TECHNICAL ASSISTANCE CONTRACT

Agreement made this day between
the Ministry of Livestock Development, hereafter called "the
Administration" of the one part

AND Mutiso Consultants Ltd, which has its head-
quarters in Nairobi, Kenya, hereafter called "the Contractor" of
the other part, whereby it is mutually agreed as follows:

The Administration hereby engages the Contractor to
provide the services for provision of staff for the Programme
Management Unit (PMU) of the ASAL Kenya Livestock Development
Programme in accordance with the Terms of Reference annexed to
this contract (Annex A) and the Contractor hereby accepts the
engagement on the terms hereafter set out in general and special
conditions. The contract shall be governed and interpreted
according to the laws of the Republic of Kenya. It shall be
funded by the European Economic Community Sixth European
Development Fund.

GENERAL PROVISIONS

The General Provisions are embodied in Annex G to
this contract except where specifically modified by the Special
Provisions hereafter formulated.

SPECIAL PROVISIONS

Preliminary Remarks

The Special Provisions serve to complete the
provisions of the General Provisions or where appropriate, to
modify the latter.

Article 3.1 Nature of Services

The object of this contract is for the Contractor
to provide the Administration with the services as indicated in
Annex A to this contract.

Article 3.4 Information for the Administration

3.4.1 Reports/Workplans/Budgets

The Contractor shall prepare and submit reports/workplans and be involved in the preparation of budgets in accordance with the provisions of Chapter 9 of the Terms of Reference (Annex A) at the cost of the Consultant.

3.4.3 Forms and Submission of the Reports

All documents and reports shall be in the English language and the metric system shall be used.

Article 4.2 Responsible Agent

The Contractor shall be answerable to the Permanent Secretary, Ministry of Livestock Development.

Article 4.5 Installation of the Contractor's Staff

The Project will provide free furnished accommodation, for the Contractor's staff. The Project will also provide sufficient transport for the PMU to carry out its official duties. It will be up to the Contractor's staff to provide transport for their own personal use. The Project will also pay subsistence allowances rates for days actually spent away from the duty station on official business.

Article 5.1 Fixing of Price

5.1.1 Fixed Costs

Fixed costs cover fees and report preparation. The overall fees cover all expenses incurred by the Contractor, his staff and persons with him on the assignments provided for in this contract.

These expenses comprise the following:

- gross remuneration of the expert (salary, allowances, bonuses);
- general expenses incurred in respect of the expert (social security, taxes, family allowances, insurances, superannuation, paid leave);

- the Contractor's general expenses, such as management, administration, documentation, taxes, equipment;
- cost of telephone calls, telegrammes, etc.
- the Contractor's profit and contingencies.

Charges for report preparation will cover the cost for all reports to be submitted under the terms of this contract.

5.1.2 Reimbursable Travelling Expenses

These will be paid as follows:

- Return economy class travel on presentation of used ticket stubs
- Excess baggage on the basis of invoices and receipts up to a defined maximum.

5.1.3 Value of the Contract

On the basis of the costs as detailed in Annex E, the value of the contract amounts to KShs 13,996,449.

Article 5.2 Price Review

The fixed cost element of this contract will be indexed using the value of the KSh against the ECU taking August 1989 as the base date (= 100).

Article 5.2 Currency of Contract

The currency of the contract is the Kenya Shilling.

Article 5.4 Currency of Payment

The fixed costs will be paid in ECU against the fixed rate of exchange defined in Article 5.5. Reimbursables will be paid in the currency in which they are incurred.

Article 5.5 Rate of Conversion

The rate of exchange for payments of fixed costs is ECU 1 = KShs 22.2181.

Article 5.6 Methods of Payment

5.6.1 Frequency of Payments

The Contractor shall submit invoices for fixed costs on a quarterly basis in arrears. Reimbursable expenses will be paid as and when occurred, on the basis of the necessary supporting documents (see Article 5.1.2).

5.6.3 Advance

At the request of the Contractor, an initial advance of 20 per cent of the value of the Fixed Costs element of the contract being the equivalent of ECU 121,777 shall be granted in accordance with Articles 5.6.3 and 5.6.4 of the General Conditions. The advance shall be recouped by means of deducting 50 per cent of the advance from the first payment and the balance in equal instalments of 10 per cent of the advance for the next five fixed cost invoices.

Article 5.7 Procedure of Payment

5.7.5 The amounts due to the Contractor will be paid by bank transfer to Mutiso Consultants Ltd, Kenya Commercial Bank, Sarit Centre Branch, Nairobi, account no. 200.680.245 for payment in Kenya Shillings, and to BMB, Management Consulting for Development B.V. (the Subcontractor), ABN Bank, Spoorlaan 346, Tilburg, the Netherlands, account no. 52.24.21.482 for payments in other countries.

Article 6.2 Date on Which Contract Becomes Operative

6.2.1 The contract shall become operative within thirty (30) days following notification of the contract (see Article 6.1 of the General Conditions) or on the arrival of the experts whichever is the earlier.

Article 6.3 Duration of the Contract

6.3.1 The contract covers a three-year period.

Article 10.3 Liquidation Damages

10.3.1 Liquidation damages payable by the Contractor for delay in presentation of reports are estimated 1/2,000th of the contract sum for every calendar day's delay, with a maximum of 5 per cent of the contract sum.

Article 14.2 Addresses

The addressed for notifications relating to the performance of this contract are:

The Administration:

The Permanent Secretary
Ministry of Livestock Development
P.O. Box 34188
NAIROBI, Kenya

Official Responsible for Directing performance of the contract:

The Permanent Secretary
Ministry of Livestock Development
P.O. Box 34188
NAIROBI, Kenya

The Contractor:

Mutiso Consultants Ltd
Development Management
P.O. Box 14333
NAIROBI, Kenya

The Commission of the European Communities:

Directorate General for Development
200 Rue de la Loi
B-1049 BRUSSELS
Belgium

The Delegation of the Commission of the European Communities:

Delegation of the Commission of the European
Communities
P.O. Box 45119
NAIROBI, Kenya

Paying Agents in Europe:

Financial institution, chosen by the Commission
dependent on the currency of payment.

READ AND ACCEPTED,
The Contractor

READ AND ACCEPTED,
The Administration

G.-C.M. Mutiso

Date:

Date:

Endorsed,
NATIONAL AUTHORISING OFFICER

Endorsed
COMMISSION DELEGATE

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ANNEX E

BREAKDOWN OF PRICES

28 / 08 / 1989

[illegible]

Ref. (a)	Items (b)						Total quantity man-months by category (d)	Average unit rates by category (e)	Amount in ECU (f)	
A.	Fees									
A.1.	Fees in the country of the Consultant (for all services)									
	Category	Years exp.								
		0 - 4	5 - 9	10 - 14	15 - 19	20 - 25	over 25			
	I				10 8,000			10	8,000.00	80,000
	II				120 4,198.21			120	4,198.21	503,785
	III									
	IV									
	V									
	Sub-total A.1.						130	4,490.65	583,785	
A.2.	Expatriation allowance (services rendered on the spot)									
	I									
	II				30 836.77			30	836.77	25,103
	III									
	IV									
	V									
	Sub-total A.2.						30	836.77	25,103	
	Sub-total A. Fees = A.1. + A.2.						160	3,805.55	608,888	

Ref. (a)	Items (b)	Unit (c)	Quantity (d)	Unit rate (e)	Amount in ECU (f)
A.	Carryover subtotal A. Fees	man-month			608,888
B.	Direct expenses				
B.1.	Daily allowances (<i>per diem</i> for short-term services on the spot)	man-day			
B.2.	Accommodation (rent for medium- and long-term services on the spot)	man-month			
B.3.	Car journeys (on the spot)				
B.3.1.	- depreciation	veh.-month			
B.3.2.	- maintenance, fuel, insurance, etc.	veh.-month			
B.4.	Auxiliary staff (on the spot)	month			
B.5.	Office equipment - branch office (depreciation)				
B.5.1.	- office furniture and administrative equipment	month			
B.5.2.	- special apparatus	month			
B.6.	Running of office(s) - branch office	month			
B.7.	Publication expenses				P.M.
B.8.	Exploratory work				
B.9.	Duty visits to Europe	man-day			
B.10.	Data processing (at head office)				
	<i>Subtotal B.</i>				-
C.	"Refundable" expenses				
C.1.	Long-distance travel (round trip)	journey			
C.2.	Travel to Europe	journey	9	1.956	17,604
C.3.	Local transport other than by road				
C.4.	Unaccompanied baggage	kg	700	4.95	3,465
C.5.	Transport of technical equipment	kg			
C.6.	Special apparatus (used by head office)				
C.7.	Studies carried out by third parties				
C.8.	Specific insurance				
C.9.	Models				
C.10.	Equipment and work for the administration				
C.11.	Local taxes (where applicable)				
C.12.	Additional reproduction cost (documents)				
	<i>Sub-total C.</i>				21,069

Ref. (a)	Items (b)	Unit (c)	Quantity (d)	Unit rate (e)	Amount in ECU (f)
C.	Carryover subtotal C. Refundable expenses				
D.	Possible additions or deductions (bonuses, etc.): Sub-total D.				
E.	TOTAL AMOUNT OF THE CONTRACT IN ECU: (A) + (B) + (C) + (D) = 629,956				
F.	CURRENCY/CURRENCIES USED FOR CONTRACT: Kenya Shillings				
G.	TOTAL AMOUNT OF CONTRACT IN THE CURRENCY USED FOR CONTRACT: KSh 13,996,449				

7. Number of experts covered by item A. "Fees" in point 6.: 4 long-term and 10 man-months short-term services
8. Name and function of person completing this form: G.-C.M. Mutiso, Managing Director
- Consultancy firm: Mutiso Consultants Ltd
- Signature:

Annex E

Breakdown of Prices (in Kenya Shillings)

A. Fixed Costs

	Unit	Number of Units	Price per Unit in KShs	Payable in KShs	Payable in ECU	Total Estimate in KShs
Fees:						
Finance Administration Officer	m/months	36 *)	170,413		276,120	6,134,862
Regional Planning Officer	m/months	36	52,000	1,872,000		1,872,000
Livestock Officer	m/months	36	52,000	1,872,000		1,872,000
Pilot	m/months	36	52,000	1,872,000		1,872,000
Short-term specialized back-up services	m/months	10 **)	177,745		80,000	1,777,448
Progress Reports						P.M.
Sub-total A - Fixed Costs				5,616,000	356,120	13,528,310

B. Reimbursable Costs

Economy Class Return Air Fares	ticket	7.1 ***)	47,535		15,190	337,501
Excess Luggage	kg	120	477		2,575	57,214
Unaccompanied Luggage	kg	700	105		3,305	73,425
Sub-total B - Fixed Costs				0	21,070	468,139
Total				5,616,000	377,190	13,996,449

Note: Fixed Exchange Rate ECU 1 = KShs 22.2181

*) The number of man-months includes 2 months paid leave per annum.

**) The division between Kenyan and expatriate expertise will be made according to the availability and requirements of the specialized services.

***) 6x Full Fare Tickets, 2x 50%-Fare Tickets, 1x 10%-Fare Ticket.

REPUBLIC OF KENYA,
MINISTRY OF LIVESTOCK DEVELOPMENT
COMMISSION OF THE EUROPEAN COMMUNITIES

PROVISION OF STAFF FOR THE
PROGRAMME MANAGEMENT UNIT
OF THE ASAL KENYA LIVESTOCK
DEVELOPMENT PROGRAMME

- Technical Tender -

Mutiso Consultants Ltd
Development Management, Nairobi, Kenya

in association with

BMB
Management Consulting for Development B.V.
Tilburg, the Netherlands

PROVISION OF STAFF FOR THE
PROGRAMME MANAGEMENT UNIT
OF THE ASAL KENYA LIVESTOCK
DEVELOPMENT PROGRAMME

- Technical Tender -

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STATEMENT BY TENDERER



mutiso consultants ltd.
development management
p.o. box 14333 nairobi
telephone 747010

The Permanent Secretary
Ministry of Livestock Development
P.O. Box 34188
NAIROBI
Kenya

LzP/JzJ/8175

28 August 1989

Provision of Staff for the Programme Management Unit (PMU)
of the ASAL Kenya Livestock Development Programme

Dear Sir,

In response to your letter of invitation dated 28 June 1989, we have pleasure in submitting for your consideration three originals of our tender for the Provision of Staff for the Programme Management Unit (PMU) of the ASAL Kenya Livestock Development Programme.

We have examined the Terms of Reference provided and confirm that, should we be awarded the contract, we would undertake the services in conformity with the provisions and terms of the EEC rules governing restricted invitations to tender and those of the draft contract. We further confirm that our proposal will be held valid for a period of three months from the closing date for submission of tenders (30 August 1989) and that, if selected, the tender will be held valid for one further month.

Yours faithfully,

Mutiso Consultants Ltd

G.-C.M. Mutiso
Managing Director

BMB, Management Consulting
for Development B.V.

L.J. Poyck
Director East Africa

cc.: Delegate of the CEC, Nairobi



Management Consulting
for Development bv

Wilhelminapark 6
P.O. Box 1
5000 AA Tilburg
The Netherlands
Telephone: 013-360084
Telefax: 013-356265
Telex: 52177 berbo nl
Bank: ABN Tilburg
Account: 52.24.21.482
Chamber of Commerce
Reg. No.: 15792 Tilburg

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ANNEX A

TERMS OF REFERENCE AND JOB DESCRIPTIONS

ASAL KENYA LIVESTOCK DEVELOPMENT PROGRAMME - (KE 6009)
TERMS OF REFERENCE AND JOB DESCRIPTIONS FOR THE PROGRAMME
MANAGEMENT UNIT (PMU)

The Ministry of Livestock Development (MOLD) and the Commission of the European Communities are planning to implement a Livestock Development Programme whose main aim is to develop a sustainable improvement in the production and marketing of livestock from the arid and semi-arid lands (ASAL) of Kenya, with particular emphasis on the pastoral areas of Turkana, Marsabit, Samburu, West Pokot, Baringo, Isiolo, Mandera, Wajir and Garissa. The financing proposal for this programme is attached to these terms of reference as Annex 1.

Implementation of this programme will be the responsibility of the MOLD. For the day to day implementation of the programme, MOLD will establish a programme Management Unit (PMU) based at Isiolo to plan, implement and monitor the various activities proposed in the financing proposal Annex 1). The Unit will be reporting and coordinated at MOLD Headquarters. The tasks of the Programme Management Unit will include the following:-

- Identification, planning, implementation and monitoring of all programme activities through DDCs and responsible MOLD Divisions.
- Coordinate between research (NALREC, Kiboko) and development programmes and between different development programmes to ensure a flow of information and coordination.
- Channel EEC funds to approved programme activities through standing imprest accounts.
- Maintain up to date financial accounts for all programme activities.
- Prepare general and annual work programmes, budgets and reports as necessary.
- In consultation with Administration, formulate requests and supervise specialist consultancies as required to help identify, plan, implement and monitor programme activities with the approval of the Permanent Secretary MOLD.
- Draw up tender dossiers and prepare supply/works contracts as required for programme implementation.

- Identify training needs of both pastoralists and supervising staff and prepare and implement training programmes as required.

The following personnel will be required to staff the programme management unit. All personnel should be fluent in English and knowledge of Kiswahili would be an added advantage. Experience of working with pastoral people in ASAL will be an added advantage.

1. Programme Manager/Coordinator

A degree preferably in Livestock/Agriculture related subjects with at least 10 years of continuous service of which at least 5 years are at senior management position in Government or large organization. The holder must have thorough knowledge of Kenya Government personnel and financial management and procurement procedures. A post graduate qualification will be an advantage.

Job Description:

- Responsible and answerable to the PS on all aspects of the programme.
- Overall management of the MOLD/EEC programme in the field including the supervision and delegation of work to staff in the PMU and establishment of an effective financial and personnel management structure for the implementation of the programme.
- Provide strong and effective leadership of the PMU and ensure that resources available to it are used with maximum efficiency ensuring optimal service to the MOLD field programme for the primary benefit of pastoralists and ranchers.
- Liaison with ASAL, DCs and their DDCs.
- Liaison with project managers of all relevant projects especially MOLD associated ones, operating in the ASAL or other areas covered by the project with a view to ensure that all project work is coordinated in a complementary manner.
- Liaison with the National Arid Lands Research Centre, Marsabit, National Range Research centre, Kiboko and the VIL Mariakani to ensure research results/findings are fully integrated in programme management and operation.
- Liaison with MOLD Headquarters, Nairobi.
- Liaison with EEC Delegation, Nairobi.

2. Technical Operations Coordinator

Qualifications and Experience: Must possess a degree in Agriculture/Livestock related subject with at least 10 years experience of implementing livestock related projects.

Job Description:

Responsible and answerable to the programme Manager/Coordinator on technical aspects of the project.

Coordinator and leader of the Technical Team comprising all the Livestock specialists and the Programme Planner, ensuring that their services work in a complementary way to increase the efficiency of the MOLD District Field teams.

- Liaison with MOLD technical staff on the identification, planning, implementation and monitoring of district projects.
- Preparation of half-yearly technical reports on the programme.

3. Finance Administration Officer

Qualifications and Experience: Accounting qualification with 10 years Experience in financial management of development activities in African countries. A sound knowledge of GOK accounting procedures would be an advantage.

Job Description:

- Responsible and answerable to the Programme Manager/Coordinator on all financial matters.

Responsible for:

- Management of project's finances.
- Management of security and servicing, licensing and insurance.
- Management of supplies and stores.
- Project accounts and internal audit
- Annual project budgeting.
- Salaries and allowances for local staff.
- All other recurrent costs.

4. Regional Planning Officer

Qualifications and Experience: Degree in Economics related subjects and at least 8 years experience in regional planning/economic analysis of which at least 5 years should preferably be project planning related activities. Experience with data storage on computers would be an advantage.

Job Description:

- Responsible and answerable to the technical operations coordinator on all economic matters, including data collection, storage and analysis on all aspects of the programme.
- Liaison with MOLD officials responsible for planning and implementation of the national livestock census, annual livestock projections in the ASAL, the livestock sector study, and establishment of monitoring/early warning systems in the Northern Districts.
- Liaison with MOLD officials on analysis of district project proposal, advising the Technical Coordinator on their economic/financial aspects.
- Liaison with MOLD district and headquarters staff on the economic aspects on the programme.

5. Livestock Officer (Rangeland Improvement)

Qualifications and Experience: Should possess a degree in Agriculture/Livestock related subject and at least 10 years experience of the practical implementation of livestock infrastructural improvement projects.

Job Description:

- Responsible and answerable to the technical operations coordinator on all structural improvement projects in the area covered by the programme - these include projects related to water development, water harvesting, livestock development centre, permanent handling facilities, mobile extension teams.
- With District MOLD staff, identification, planning, implementation and monitoring of these projects.

6. Animal production and Marketing Coordinator

Qualifications and Experience: Should have a degree in livestock

related subject and at least 10 years experience of practical in animal production and marketing.

Job Description:

- Responsible and answerable to the Technical Operations Coordinator on all animal production and marketing projects, including the survey and rehabilitation of holding grounds, establishment of livestock breeding centres fattening schemes for immatures, establishment of training programmes for pastoralists/GOK staff, liaison with DDCs on the establishment of a livestock industry training centre.
- With district MOLD staff, identification, planning, implementation and monitoring of these projects.

7. Pilot

Qualifications and Experience: Valid private pilot licence with minimum 300 hours flying time. The possession of a valid commercial pilots license with instrument rating or instructions rating and airplane and engine maintenance license would be an added advantage.

Job Description:

- Responsible and answerable to the Manager/Coordinator.
Responsible for the efficient maintainance and operation of the programme's aircraft.

8. Support Staff (Nenyan)

These will be locally recruited following appointment of the senior staff. It is proposed to recruit secretaries, administrative assistants, drivers and other support staff (messengers/cleaners/watchmen) for the PMU if and when required.

9. Reporting/Work Programming

The PMU will be required to provide a comprehensive report on implementation of the programme every six months, commencing July 1989. They will also be required to prepare a draft workplan/budget in September each year for the following GOK financial year (July/June) for consideration by the MOLD Administration Production cost to be met by contractor.

10. For purposes of this contract, the consultancies are

requested to provide suitably qualified and experienced staff to fill the following positions:

- No. 3 Finance Administration Officer
- No. 4 Regional Planning Officer
- No. 5 Livestock Officer (Rangelands Improvement)
- No. 7 Pilot

The other staff for the PMU have already been secured through direct appointment by MOLD (Programme Manager/Coordinator) and direct recruitment by the EEC (Technical Operations Coordinator, Animal Production and Marketing Coordinator).

Allowances should also be made for specialized back up services to be determined on case by case basis over the period contract to be negotiated separately.

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Notification of Amendment to Terms of Reference

DELEGATION OF THE COMMISSION
OF THE EUROPEAN COMMUNITIES
IN THE REPUBLIC OF KENYA

THE DELEGATE

NAIROBI,
National Bank Building, Harambee Av.
P.O. Box 45119,
Tel: 333592 Telex 22302
Telegrams: DELEGFED - NAIROBI

Ref: BVH/1881

6 July 1989

Mutiso Consultants Ltd
P O Box 14333
NAIROBI

Dear Mr Mutiso

ASAL Kenya Livestock Development Programme - Terms of Reference

We refer to the last paragraph of the Terms of Reference and Job Description which are part of the tender dossier dispatched to you on 28 June 1989 by the Permanent Secretary, Ministry of Livestock Development.

The third line from the bottom should read: "Allowances should also be made for ten (10) man/months of specialised back-up services....".

Yours sincerely



PH. DARMUZEY
ACTING DELEGATE

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ANNEX B

EXPERIENCE OF CONSULTANTS AND
NUMBER OF STAFF AVAILABLE AND TO BE ASSIGNED

B.1 MUTISO CONSULTANTS LTD

B.1.1 Background Information

Mutiso Consultants Ltd was established in 1983 by a group of Kenyan professionals convinced of the need for a coherent multidisciplinary approach in development activities. Over the years Mutiso Consultants Ltd has identified, planned, managed and evaluated projects for varied clients active in development.

In addition, the company has extensive field research experience and a large planning capacity. Its locally based expert capacity provides a unique opportunity for rapid mobilization.

Management

Overall organizational policy is set by a Board of Directors. Daily management of operations is exercised through two directors, Professor G.-C.M. Mutiso, who is the company chief executive officer, and Dr R.M. Mutiso. Both have extensive consulting, management, research and academic experience. Company auditors and secretaries are Messrs Nyenge and Co., a firm of certified public accountants registered in Kenya.

Legal Status

Mutiso Consultants Ltd was issued with a Registration Certificate Number C. 26201 on 9 September 1983. The current (1989) Trade Licence is Number 237279.

International Clients

Mutiso Consultants Ltd has worked for the following international clients: the Royal Netherlands Government, International Institute for Rural Reconstruction (IIRR), Canadian International Development Agency (CIDA), Swedish International Development Agency (SIDA), United States Agency for International Development (USAID), Danish International Development Agency (DANIDA), United Nations Development Programme (UNDP), Food and Agricultural Organization (FAO), International Fund for Agricultural Development (IFAD), International Development and Research Centre (IDRC), Ford Foundation, United Nations Sahelian Office (UNSO), Government of the Federal Republic of Germany, Office of Technology Assessment - Congress of the United States, International Bank for Reconstruction and Development (World Bank), Government of Finland, Christian Relief and Development Agency, Mennonite Board, Netherlands Volunteer Service (SNV), Beijer Institute, United Nations Economic Commission for Africa, Earthscan, Pathfinder, Norwegian Agency for Development (NORAD), Commonwealth Development Corporation, Danish Church Aid (DANCHURCHAID), United Nations Children's Emergency Fund (UNICEF), Alan Shawn Feinstein World Hunger Programme, Mananga Agricultural Management Centre, African Development Foundation (ADF) and the Sokoine University of Agriculture.

Kenyan Clients

Locally, the company's clients have included the Office of the President, Ministry of Planning and National Development, Office of the Vice President and Home Affairs and National Heritage, Ministry of Environment and National Resources, Ministry of Agriculture, Ministry of Livestock Development, Ministry of Regional Development, Ministry of Water Develop-

ment, Ministry of Culture and Social Services, Ministry of Education, Ministry of Transport and Communications, Ministry of Cooperative Development, Kenya National Council of Social Services, National Council of Churches of Kenya (NCCCK), Voluntary Agency Development Assistance (VADA), Young Women's Christian Association (YWCA), Kenya Energy Non-Governmental Organizations (KENGO), National Council on Population and Development, Mazingira Institute, Appropriate Development Informatics (ADI), Maendeleo ya Wanawake, Machakos District Development Council, Catholic Diocese of Kitui and the Materu Girls' Centre.

B.2 EXPERIENCE OF THE COMPANY

Field studies, programme/project development studies, evaluations, appraisals, feasibility studies, management plans, formulations of projects, and preparation of training materials have been executed for the clients cited in Section B.1.1. Details of assignments completed are provided below, by sector.

B.2.1 Agriculture and Livestock Development

1. ADI Livestock Proposal and Programme Development

Mutiso Consultants Ltd was asked by Appropriate Development Informatics (ADI), a local NGO, to generate funding proposals and develop a seven-year implementation programme. As ADI work is concentrated in the arid and semi-arid areas of the country a programme emphasizing the introduction of improved local livestock, improvement of range and provision of range water was developed.

2. Appraisal of Economic Viability of Goat and Sheep Project

For SNV and the Diocese Kitui, Mutiso Consultants produced a team leader for the economic appraisal and preparation of stocking, breeding and range improvement of a ranch which is used to produce livestock for utilisation in the livestock development of the semi-arid (ASAL) district of Kitui.

3. Coffee Production and Ranching Expansion Proposal

For Katelembo Athiani Mputi Farming and Ranching Cooperative Society, Mutiso Consultants developed a proposal for financing the expansion of water resources, upgrading of coffee, rehabilitation of the ranch and introduction of beef production as well as designing a management system for improving production of the cooperative.

4. Marketing of Fresh Mangoes by Tana River YWCA Women's Groups

This consultancy studied local and export markets for fresh mangoes. Since the project objective was maximization of employment and income generation, a proposal was developed for donors which included sub-projects on training in mango picking and packing, fresh mango sales to the tourist industry, fresh mango export, development and extension of improved mangoes, production of mango pulp for export and production of chutney for export. Funds for the work came from the Ford Foundation.

5. Tana Mango Processing Project

An agricultural and economic feasibility study was conducted on mango production and marketing. Investigations were carried out on how rural women, some of whom are members of the YWCA, relate to the mango production system. The purpose of the feasibility study was to clearly delineate roles for rural women's groups, NGO financiers, and a commercial firm giving technical assistance. Funding for this work was through the Ford Foundation and Kenya Rural Enterprises (KREP), an NGO established by USAID to promote small-scale business.

6. Study on Agro-Economy of Kisumu Municipality

Mutiso Consultants Ltd studied the agricultural activities within the boundaries of the Kisumu Municipality. This was for the Ministry of Water Development's Kisumu Municipality Water Master Plan 1985 - 2005 and was funded by the German Government. At issue was the utilisation of urban land for agricultural production and its impact on water supply.

7. Report on the State of Seeds

This consultancy, conducted for Kenya Energy Non-Governmental Organization (KENGO) and the Mennonite Board, had three distinct components. Policy-oriented research on the laws, commercial practices and consumer issues on seeds was conducted and a report produced. This report became the major input in a national workshop for all NGOs, researchers and government departments involved in aspects of crop and tree seeds. A report on seed policy, research, marketing and genetic resource conservation was produced.

8. Kisii Food Processing and Storage Project

This prefeasibility assignment entailed documenting the production of food crops in Kisii with a view to formulating a development strategy for introducing modern processing, storage and marketing systems. The Kenya YWCA wanted the project strategy to be developed in such a way as to enable its members to move into group ownership and management of higher level food processing technology. Funding for the work came from the International YWCA.

B.2.2 Arid and Semi-Arid Lands (ASAL) Development

1. District Focus and Financing Kitui Arid and Semi-Arid Programme

With funding from USAID, Mutiso Consultants Ltd conducted extensive research on alternatives for moving donor funds into the District Focus planning framework after it was initiated by the Government of Kenya in 1983. This presented serious problems where donor funds, administered by an international contractor, were to be used to implement projects identified and planned at the district level. The output was a financial management plan for a specific district.

2. Kitui District Arid and Semi-Arid Lands Development Appraisal

For DANIDA, Mutiso Consultants participated in an appraisal mission for the Kitui ASAL Development Project. The specific responsibility was to find institutional mechanisms for integrating the Mutomo Soil and Water Conservation Project which took place at the divisional level with district-wide activities which were funded by the terminated USAID project. Mutiso Consultants also produced the livestock sector specialist.

3. ADI Semi-Arid Water and Food Production Project

This consultancy, undertaken for Appropriate Development Informatics, developed a seven-year project which will, by using community groups in semi-arid parts of the country, teach techniques of storing storm water and its use in supplementary irrigation of survival crops. Mutiso

Consultants identified technologies for storm water harvesting, community organization, areas for operations as well as developing staffing, logistics and management needs.

4. Joint Formulation Mission, Elgeyo Marakwet ASAL Programme

The Royal Netherlands Government requested Mutiso Consultants to produce a team leader for a joint mission, of which the purpose was to develop proposals for the Sixth Plan period and an operational budget for the first year. This was in recognition of the specialized capability in ASAL planning within the company.

5. Appraisal Mission on Self-Help Women's Groups in ASAL Areas of Eastern Province

For the Materi Girls' Centre, DANCHURCHAI and DANIDA, Mutiso Consultants Ltd was requested to appraise women's groups in the arid and semi-arid (ASAL) areas of Eastern Province with respect to capacity to identify girls for training in community oriented technical careers in the ASAL areas, capacity for development and ability to support the girls during and after training. Following the innovative girls' and group training programme it is expected that the other six provinces will start similar training programmes.

6. Baringo Fuel and Fodder Project Technical and Management Brief

For the Dutch Government and the Ministry of Energy and Regional Development, Mutiso Consultants was requested to carry out a watching brief on an arid and semi-arid area research and development fuel wood and fodder production

project. The assignment consisted of evaluating and reorganizing management and staff, making training needs proposals and identifying training sources, land preparation, tree disease management, back-stopping on field and national level relations, planning the future expansion of the project to other districts, systematizing research and, perhaps most importantly, linking the project to the Government's district development planning systems.

7. Development Information Brief for Mutomo Soil and Water Conservation Project

For the Danish Government and the Ministry of Agriculture, Mutiso Consultants was requested to design and produce information systems which would increase the development impact of the Mutomo Soil and Water Conservation Project not just to the primary target population, organized into mwethya groups, but also to the wider community, which was not directly reached by group activities. The Consultants designed and produced a quarterly newsletter for the total population in recognition of the fact that development information must be presented to communities in such a form that it can be easily understood and internalized by more than the individuals who interact with a project directly. The newsletter contained "how to" information and human interest development reportage.

8. Identification Mission for National Strategy for Development of ASAL Areas of Kenya

For the IFAD, FAO, UNDP and the Ministry of Planning and National Development, Mutiso Consultants was asked to participate in an identification mission for the National Strategy for the Development of Arid and Semi-Arid (ASAL)

Areas of Kenya. This large assignment was an input into the preparation of the Sixth National Development Plan. Consultants were provided for: (1) Review of Existing ASAL Projects and Evaluation of Alternative ASAL Administrative/ Financial Approaches, (2) Agricultural Marketing and Credit, (3) Small-Scale Irrigation, (4) Infrastructure and Communications, and (5) Nutrition, Health and Food Security.

9. Desertification Control Programme Planning

Conflicting responsibilities over desertification control programmes have led to unsystematic handling of urgent national activities. The National Environmental Secretariat of the Ministry of Environment and Natural Resources together with the United Nations Sahelian Office requested Mutiso Consultants to prepare documentation setting out policy, legal and programming issues on the concerned national institutions to be used in policy review and reform and in generating funding proposals.

10. Business Development Plan for Honey Exports

For a private company, Mutiso Consultants Ltd identified ASAL honey producing areas and national production estimates. A business development plan which included evaluating processing methods and procedures as well as setting up quality control procedures was developed.

B.2.3 Development Policy Planning

1. Formulation of R&D and Core Programme for Beijer Centre for Energy and Development in Africa

The Beijer Institute and the Royal Swedish Academy of Sciences requested Mutiso Consultants Ltd to identify the continent's key research and development issues in the energy sector and to design appropriate intervention methods to form the core programme for a centre to be established to handle Africa's energy problems.

2. Study on Funding Culture

For the Ford Foundation, Mutiso Consultants Ltd investigated the artistic and business capacities of Kenyan music, drama, painting and sculpture groups, companies and public institutions in order to recommend alternative funding needs, keeping in mind the need for conservation and promotion of indigenous culture. This was the first comprehensive study of the sector.

3. Commodity Imports Study

This assignment entailed research on industrial products which would make an impact on the poorest strata of society and which could become part of Swedish aid granted to Kenya. A report was produced recommending commodities in health, agriculture, cooperatives and commercial sectors.

4. Small Grants Programme Development

This was a consultancy given by Voluntary Agency Development Assistance (VADA), an umbrella NGO funded by the Ford Foundation and USAID. Its objective was to investigate and recommend modalities for the provision of small grants in the Kenyan NGO sector. Methods and procedures for lending through intermediate NGOs and directly to small groups were enunciated.

5. African Development Foundation (ADF) Projects Assessment

For the Office of Technology Assessment, Congress of the United States, Mutiso Consultants took part in a continent-wide assessment of the African Development Foundation's projects. The objective was to establish how the development objectives specified in ADF's congressional mandate were operationalized and whether changes were needed either in the content of the mandate or in ADF's operations. Special attention was paid to issues of grassroots participation in projects, project sustainability and project replicability.

6. Christian Relief and Development Agency (CRDA) Reorganization and Programme Development

Many NGOs, born during crisis, do not easily move into development after the crisis. CRDA, an Ethiopian national NGO umbrella organization, which coordinated significant famine relief work during the 1984 Ethiopian crisis, asked Mutiso Consultants Ltd to review its purpose, staffing, management and future programme possibilities in development.

7. Monitoring and Evaluation of the Impact of Agricultural and Rural Development Strategies

For the Ministry of Planning and National Development, FAO, UNDP and World Bank, a national system of indicators for monitoring and evaluating the impact of agricultural and rural development strategies was developed leading to the identified donors committing significant amounts to the programme. The design led to recommendation that the system be expanded to include all development projects.

8. Management of District Focus

This work was done for the Office of the President, Development Coordination and Cabinet Affairs. The consultancy entailed extensive field work with district officials in a sample of 12 of the 41 districts in the country to identify management problems with the new policy. Key problem areas were identified, existing managerial innovations at district level were documented and policy actions enumerated for inclusion in the review of District Focus policy.

9. Study of Non-Governmental Organizations in District Development

At the request of Machakos District Development Committee, Mutiso Consultants Ltd inventoried all non-governmental activity in Machakos District, including project budgets, personnel, sector concentration and geographic spread. This led to a report showing sectors and techniques used by NGOs in development. Policy options for the consideration by the District Development Committee and a planning framework for the committee and the NGOs were generated.

10. Evaluation of Contribution to Development by Non-Governmental Organizations

At the Institute for Development Studies, University of Nairobi, Mutiso Consultants was involved in a think tank to evaluate the NGO experience in Kenya with respect to sectorial funding, foreign penetration, conflict in planning goals, issues of accountability, and the state's need for managing external aid.

11. Food Crisis in Africa

Mutiso Consultants Ltd assisted in developing action strategy and policy recommendations for the National Council of Churches of Kenya, the umbrella organization of Protestant churches in Kenya. This entailed preparation of study materials for participants in a national food programme seminar attended by top church and government policy makers, and parastatal and private sector managers after the drought disaster of 1984.

B.2.4 Human Resources Development and Training

1. Institutional Support Project Proposal for Sokoine University of Agriculture (SUA)

For the International Development Research Centre (IDRC) Mutiso Consultants Ltd produced a senior consultant to work with SUA to develop an institutional support project to concentrate on applied research and produce end user materials, build up research capacity by support of computerization and training of administrators and post-graduate researchers.

2. University-Industry Manpower Linkages

For the United Nations Development Programme and the Economic Commission for Africa, Mutiso Consultants evaluated the training systems of two Harambee Institutes of Technology with respect to meeting local industrial needs and tracing their students into university training systems. Further investigations involved study of the training capacity of the local universities and investigation of the feasibility of mounting special courses and exchanges for industry-specific technical needs.

3. Training in Innovative Development Approaches

The scope of work for this consultancy called for the development of training materials and participation in the training of NGO middle managers in bottom-up development strategies. It was carried out for Voluntary Agencies Development Assistance and the International Institute for Rural Reconstruction.

4. Training in Media Approaches to Environment and Development Issues

A training programme was conducted for media writers on the interface between environment and development. Training materials were developed, a workshop on media writing on the twin issues was held, and recommendations were made on sensitizing media managers to deal with environmental and development issues. A major blitz of media coverage resulted from the training activity which was sponsored by Earthscan.

5. Training for Leadership Development

This consultancy for the Human Resources Division of USAID evaluated past programmes, assessed future needs and developed modules for the preparation of a project paper for human resources development in Kenya. Issues covered included inter alia nomination and selection criteria, administrative mechanisms and specification of local and external contractor responsibilities. It involved extensive interviews in the governmental, cooperative, donor and private sectors.

6. Social Science Research Competition

For the Ford Foundation and International Research and Development Centre, Mutiso Consultants evaluated a ten-year long social science research programme. In addition to evaluating the appropriateness and relevance of past funding levels and areas, the consultancy identified new areas needing social science research funding over the Eastern Africa region. Modalities of funding were specified.

7. Evaluation of Participatory Development Approaches

This consultancy for the Kenya National Council of Social Services evaluated three distinct models of NGO development activities. It further produced training materials for programme directors of affiliated NGOs. There was special focus upon the problems of women's participation in development and the need to invest in group processes.

8. Environmental Issues Training for Media Policy Makers

This consultancy entailed the preparation of training materials and participation in the training of public and private media editors on the writing and editing of environmental issues and their impact on development. It was jointly commissioned by KENGO and Earthscan.

9. Africa Beyond Hunger 1957-2057

The World Bank driven doomsday scenario that Africa cannot develop is increasingly being attacked by African intellectuals. The World Hunger Programme, NORAD, SIDA and the Ford Foundation brought together some of the intellectuals in an "alternative futures think tank" to review the data on African development and to chart possible alternative futures. Mutiso Consultants participated and produced a report to NORAD on the possible impacts of the alternative future scenarios in African development.

10. Staff College/Senior Management Staff Seminars

For the Office of the President and Kenya Institute of Administration, Mutiso Consultants Ltd biannually participates in each of the two distinct seminars which train the top public and private sector managers. The emphasis is on developing materials and participating in the seminars dealing with strategic planning, natural resource conservation, utilisation of informatics in policy making and political development.

11. Senior Management Course

For the Commonwealth Development Corporation and Mananga Agricultural Management Centre, Mutiso Consultants participated in a month-long senior managers' course. The managers were drawn from ten African countries. The objective of the course was to train them in managerial skills as well as to sensitize them to socio-political environment issues which impinge on their operations.

B.3 NUMBER OF STAFF AVAILABLE AND TO BE ASSIGNED

Mutiso Consultants Ltd is associated with a team of 69 locally based professional consultants who have postgraduate degrees or professional certificates as well as many years of research and work experience. Their expertise falls into the following categories:

Livestock Specialists	8	Forestry Specialists	2
Cooperative Specialists	2	Communications Specialists	2
Land Tenure Specialists	2	Plant Pathologists	2
District Focus Planners	2	Water Harvest Specialist	1
Economists	4	Education Specialists	2
Sociologists	4	Administration Specialists	2
Energy Planners	2	Architectural Planners	2
Demographers	4	Plant Breeders	2
Development Planners	4	Agricultural Engineers	2
Agro-Economists	4	Marketing Specialists	2
Management Specialists	4	Environmental Planners	2
Data Specialists	2	Logistics Specialists	2
Soil Specialists	2	Health Specialists	2

The numbers of currently available and assigned staff are as follows:

	<u>Total Available</u>	<u>Assigned</u>
Fulltime Staff	12	6
Associated Staff	69	10

Staff to be Assigned to the PMU

The long-term staff to be assigned by Mutiso Consultants Ltd to the PMU of the ASAL Kenya Livestock Development Programme are Mr Zebedeo Omwando as Regional Planning Officer, Mr Evans Mweya as Livestock Officer (Rangelands Improvement) and Mr Andrew Simpson as Pilot.

The short-term specialists put forward as examples of the type of relevant expertise that can be made available are:

Range Ecology Expert	K.O. Farah
Range Management Expert	T.J. Njoka
Livestock Breeding Expert	D. Kimenye
Livestock Training Expert	C.N. Karue
Livestock Marketing Expert	G.M. Ruigu
Livestock Economist/Planner	L.G.K. Ngutter
Resource Economist	M. Manundu
Environmentalist	E.N. Marekia
Rural Sociologist/Planner	J.H. van Doorne
Water Resources Specialist	E.N. Petersen

Professor G.-C.M. Mutiso, Managing Director of Mutiso Consultants Ltd, will provide backstopping and support to the team in the field.

The full experience records of the Mutiso staff to be assigned to the PMU are presented in Annex D.4.

B.4 BMB, MANAGEMENT CONSULTING FOR DEVELOPMENT B.V.

B.4.1 Background Information

BMB, Management Consulting for Development B.V. was originally founded in 1967 by two management consulting firms in The Netherlands: BERENSCHOT and BOSBOOM & HEGENER, and joined in 1975 by the Dutch auditing firm: MORET & LIMPERG. In 1976 SORCA-BMB joined the group, thereby further strengthening the consulting expertise.

With a background of over 50 years' experience gained by the parent companies in providing consulting services to the public and private sectors in Europe, BMB specializes in meeting the particular demands resulting from the increasing importance of the countries of Asia, Africa and Latin America.

BMB believes that the optimal functioning of organizations (whether private or state-owned enterprises, public bodies or government departments) is an essential condition for the balanced social and economic development of a country. Aspects such as organization, management, control and follow-up have in the past often received scant attention at the expense of the long-term efficacy and/or profitability of the organization.

Nowadays it is realized that "hardware" (e.g. machines, buildings, irrigation systems, vehicles) alone does not constitute development. Equally important is the "software" such as institutional development, including organizational improvement, efficiency, labour relations and training. It is in these fields that BMB has assisted its clients over the past 20 years.

The quality of BMB's work is ensured by a large staff of full-time consultants and a support staff (research, editing of reports, finance, personnel and procurement) of approximately 30. In addition, whenever needed for specialized technical inputs, BMB can call on a pool of several hundred experts of various nationalities. As a result BMB is able to provide at short notice multidisciplinary teams of experts who during overseas assignments are coordinated and backed up by senior management and staff at headquarters.

Fields of Activity

Although a list of consulting activities can never be exhaustive, a tentative summary of the fields of activity in which the BMB group engages is given below:

Agriculture and Agro-Industry:

studies, design, start-up and management

Feasibility Studies:

industry, transport systems, health projects

Financial Planning and Control:

budgeting, cost accounting, cash flow analysis

Industrial Engineering:

strength-and-weakness analysis, rationalization of production, quality control, standardization of equipment, lay-out, investment planning, product range analysis, etc.

Institution Building:

establishment, organization and reorganization of public and private bodies, enterprises, etc.

Macro-Economic Studies

for national and regional authorities, public and private organizations

Market Studies:

structuring retail organizations, merger implementation, dealer selection, export promotion, etc.

Master Planning

for regional and urban development projects

Personnel Management:

work analysis and job classification, personnel evaluation schemes, personnel planning, recruitment and selection

Project Management:

formulation of tasks and procedures, project phasing, monitoring and evaluation

Social and Demographic Studies

at national, regional and municipal levels

Training:

start-up training, retraining, management development

Transportation:

studies, design and implementation in respect of land and sea traffic, ports and airports, urban transit systems

Clients

The BMB group has extensive experience with several groups of clients:

- International Agencies: United Nations, World Bank, Asian Development Bank, African Development Bank, European Development Fund, Kuwait Arab Fund, Islamic Development Bank
- The Directorates for Development Cooperation of the Government of the Netherlands and the Government of Belgium
- Governments of overseas countries
- Private sector enterprises including multinational companies.

Execution of assignments and reporting is done in English, French, Spanish, Portuguese, German, Dutch and Arabic.

Projects have been executed or are being carried out in the following countries:

Africa

Angola, Benin, Botswana, Burkina Faso (Upper Volta), Burundi, Cameroon, Central African Republic, Cape Verde, Chad, Comoros, Congo, Ethiopia, Gabon, Gambia, Ghana, Guinea, Ivory Coast, Kenya, Liberia, Madagascar, Malawi, Mali, Mauritania, Mozambique, Niger, Nigeria, Rwanda, Senegal, Sierra Leone, Sudan, Tanzania, Togo, Zaire, Zambia, Zimbabwe

Middle East and North Africa

Afghanistan, Algeria, Bangladesh, Egypt, Iran, Lebanon, Morocco, Pakistan, Saudi Arabia, Somalia, Tunisia, Yemen Arab Republic

Far East

Burma, Hong Kong, India, Indonesia, Kampuchea, Korea, Laos, Malaysia, Maldives, Nepal, Philippines, Singapore, Sri Lanka, Thailand, Vietnam

Latin America and Caribbean:

Argentina, Barbados, Bolivia, Brazil, Chile, Colombia,
Costa Rica, Cuba, El Salvador, Grenada, Haiti, Honduras,
Jamaica, Mexico, Netherlands Antilles, Nicaragua, Panama,
Peru, Puerto Rico, Surinam, Trinidad, Venezuela.

B.5 EXPERIENCE OF THE COMPANY

Details of projects executed by BMB and relevant to the present proposal are provided on the following pages.

B.5.1 Livestock Development and Marketing

Indonesia Monitoring and Evaluation of Smallholder Cattle
Development Project

1982-date As part of a smallholder cattle development project financed by the International Fund for Agricultural Development (IFAD) and supervised by the World Bank, P.T. Bahana Mitra Buana (P.T. BMB, BMB's associate in Indonesia) was engaged for the design and implementation of a system to monitor and provide a basis for the evaluation of the socio-economic effects of the project on the beneficiaries. This system has now become highly effective, and a major contribution to this success is the more efficient extension and feedback of management information.

The main project objective is to improve the livelihood of smallholders in Sumatra by supplying them with cattle to assist in the cultivation of their land. Appropriate organizational arrangements were necessary, in order to ensure the maximum benefit from this cattle utilization and also to ensure sufficient importance being attached to the design and implementation of farming systems and husbandry methods which provide for soil conservation and the maintenance of soil fertility.

In order to ascertain whether the project is having the desired effect, the consultants designed a system to monitor project effects and impact, not only on the smallholder recipients of cattle, but also on the cattle procurement and forage-seed production areas covered by the project. They established a very effective, computerized system of records, for the management of farm loans and the analysis of data on calving and mortality. A further computerized system of financial monitoring did much to facilitate the functional budgetary analysis.

Since the start of the project, P.T. BMB's team of five specialists has established these new systems, prepared questionnaires, tested them in the field and commenced the collection of base-line data. Systems for processing the data and presenting them to different levels of project management and the donor agency have also been elaborated.

Botswana Services to Livestock Owners in Communal Areas

1980-date The major source of rural income in the Republic of Botswana is the livestock industry. This industry also earns the country revenue from international markets. The Botswana Government has therefore given top priority to a further development of this industry with special emphasis on the tribal areas. These tribal areas, covering about 274,000 km², contain the best sources of water and grazing and about 80% of the country's human population. This is where livestock is most dense, owned mostly by the poorer classes of the community, and cropping, tourism and social development in general also take place in these areas. As a result of the uncontrolled livestock density, grazing in the tribal areas is deteriorating tremendously; consequently, the low productivity of land use in these areas has caused the Government some concern. Some improvement is necessary to ensure the continuation of a well-maintained livestock industry.

The most important programme for the conservation of natural resources is the Tribal Grazing Land Policy (TGLP) outlined in Government Paper No. 2 of 1975, which intends to alter the traditional forms of land use to bring about improved conservation, better production, management and husbandry techniques. The Policy proposes the division of the tribal land into three categories viz.: Commercial, Communal and Reserved areas. Leasehold ranching will be encouraged in the Commercial areas, while group or cooperative grazing will be encouraged in the Communal areas, which will be dominated by small farmers. It is in the Communal areas that farmers lack a number of basic services that are essential to livestock development.

These services may be in the form of an improved input/supply system, improved marketing system, improved disease control measures, matching grants and technical assistance. The project seeks funds totalling P1.976,664 to make those services available to farmers in Communal areas. A demonstration programme will be included in the project.

Under financing from the EEC, BMB has made available to the Government of Botswana an advisor to assist in the implementation of the "Services to Livestock Owners in Communal Areas" project.

The BMB advisor works within the Department of Cooperative Development, Ministry of Agriculture, being posted to the Botswana Cooperative Union, Marketing Branch, Lobatse. Further, he liaises with the Chief Agricultural Economist, Ministry of Agriculture, and coordinates the activities related to Cooperatives with the Chief Technical Advisor of the ILO/DANIDA project "Strengthening the Cooperative Movement".

The main objectives of his assignment are to:

- assist and advise the Department of Cooperatives and the Botswana Cooperative Union in the development of cooperative livestock organization and marketing;
- assist the Cooperative movement to improve their marketing services thus increasing the proportion of cattle supplied to the Botswana Meat Commission from the Cooperatives.

The duties being carried out by the BMB advisor are listed below.

- Advising the Department of Cooperative Development and the Board and Management of the Botswana Cooperative Union on livestock marketing matters, concerning in particular: policies, organization, management, new procedures, improved methods and systems, and the writing of policy documents, instructions and manuals.
- Assisting in the implementation and supervision of new marketing methods and management systems.
- Advising Senior Officers and officials of the Department of Cooperative Development and the BCU in the course of their duties in representing the Cooperatives to the following authorities: the Minister of Agriculture, the Permanent Secretary of the Ministry of Agriculture, the Livestock Industry Advisory Committee, the Botswana Meat Commission and the Quota Allocation Committee.
- Collecting and compiling statistics in order to provide information to assist the Department of Cooperative Development and the BCU in decision-making.
- Writing any reports required on problems and progress.
- Providing on-the-job training for the Department of Cooperative Development and BCU staff, and also, in courses and seminars, instructing society staff on matters relating to the livestock industry as arranged by the Department of Cooperative Development.
- Assisting in the recruitment and training of BCU control and supporting staff.

- Assisting in the coordination of livestock marketing matters between the BCU Marketing Branch and the following: Department of Cooperative Development, the BCU Headquarters, Gaborone and the Botswana Cooperative Bank.
- Planning and assisting in the construction of Cooperative cattle-holding grounds.
- Liaising with the Chief Agricultural Economist in the Ministry of Agriculture.

A summary is given below of progress achieved by the Cooperative Movement during the period of the project:

- an increase of 33% in Cooperative Society Membership;
- an increase of 32% in the proportion of cattle supplied by the Cooperatives to the BMC;
- the formation of seven new cattle-marketing Societies;
- the appointment of a Cooperative Member to the Board of the BMC;
- the establishment of the first Cooperative cattle-holding ground;
- the planning of a five-year development programme for Cooperative cattle-marketing which includes a BCU Marketing Field Service, and an Advanced Payments Scheme;
- the introduction of a computer system for the calculation of Society cattle payments.

Sudan

Management Assistance to the Animal Production Public Corporation (APPC)

1977 - 1982 Client: the Government of the Democratic Republic of the Sudan.

Objective: to improve and extend livestock, poultry and fisheries production in the Sudan.

Means: strengthening the management of the Animal Production Public Corporation and improving and extending the activities and performance of this Corporation.

Financing:

- the Netherlands Government (first two years);
- the European Development Fund (remaining two and a half years).

The Animal Production Public Corporation was established in 1975 with the aim of:

- planning and directing the overall development of animal production in the Sudan;
- initiating and supervising actual production by establishing subsidiaries.

The Corporation is responsible for establishing production units for the purpose of production and sale of dairy products, meat, poultry and eggs, fish and animal feeds.

The units are to be run on a commercial basis. The policy of the Corporation should be based on optimizing the use of national resources and available capital and maximizing the economic and social benefits.

When APPC was established a number of existing production units in the field of dairy production and fisheries were incorporated in the new framework.

In 1977, BMB consultants were given the task of evaluating the performance of APPC and advising the Netherlands Government on the optimum mode of assistance to the Corporation. The report of the appraisal mission resulted in a technical assistance programme for advisory and training services to APPC. The implementation of the programme was assigned to BMB consultants.

When financing of the project by the Netherlands Government came to an end, the European Development Fund of the European Economic Community financed a follow-up programme which focused principally on training. BMB consultants were retained for this follow-up programme.

The duties carried out by the consultants can be summarized as follows:

- Advising and assisting the management in development strategy, corporate structure, internal organization, administrative procedures and management information systems;
- Investigating marketing potentials for the goods (to be) produced by the production units, and making recommendations on distribution systems, pricing policies, etc.;
- Designing adequate accounting systems and procedures for the Corporation's head office and production units and preparing a detailed accounting manual;
- Investigating the profitability of existing production units and making recommendations with regard to improved costing methods, better utilization of capacity, etc.;
- Planning and initiating a training programme in finance and accounting, with emphasis on practical skills;

- Planning and initiating a training programme in livestock production with special emphasis on practical field work with farmers (extension services);
- Demonstrating, both to farmers and APPC staff, the economics of production especially with regard to feeding systems, calf rearing, disease prevention;
- Planning and initiating a training programme in fishing focusing on improved fishing methods, handling of the catch, and fishing equipment;
- Investigating and making recommendations with regard to a better exploitation of the rich fish resources of Lake Nuba. The recommendations concerned inter alia: the status, training and housing of fishermen, infrastructural facilities, fishing methods and collecting system, research, fish stock protection, processing methods, transport, marketing and pricing, and the use of waste products.

Finally, to ensure that APPC staff attain complete self-reliance in the various fields covered by the Corporation, BMB evaluated a multitude of overseas training opportunities and mediated in both placement and external financing of fellows in selected study programmes available in Europe.

The expertise provided by the consultants for the implementation of the project was as follows:

- general management expert for 27 man-months;
- marketing expert for 24 man-months;
- finance and costing expert for 10 man-months;
- accounting expert for 9 man-months;
- fisheries expert for 13 man-months;
- livestock production expert for 3 man-months;
- food processing expert for one man-month.

Yemen Arab Management of Municipal Slaughterhouses and Meat Markets
Republic Project

1982-date Background to the Project

The methods of animal slaughtering and meat distribution in the Yemen Arab Republic fell short of accepted standards of hygiene. Slaughtering facilities were insanitary, inspection was inadequate and there were no disinfection facilities or laboratory control procedures. Health requirements did not exist. In addition, significant losses of hides and skins were occurring because of poor flaying and preservation techniques.

As a first step towards overcoming these problems, the YAR Government included in its programme for the development of the country's livestock industry the establishment of modern slaughterhouse and meat market facilities in the three main towns - Sana'a, Taiz and Hodeidah. The programme obtained financial and technical assistance from several donor countries and institutions.

When the construction programme of the slaughterhouses and meat markets had reached the stage where some of the facilities could be brought into operation, the YAR Government was faced with the task of ensuring that this was done in such a way as to make the desired contribution to the improvement of meat handling standards and hides and skins treatment. This led to the follow-up project which is being executed by BMB.

Brief Description of Project

The objectives of the project are:

- to improve the hygiene and sanitary conditions under which animals are slaughtered and meat is marketed in order to contribute towards the improvement of public health;
- to increase export earnings by improving the quality of hides and skins.

BMB consultants are providing the following services in order to achieve these objectives:

- establishment of an efficient institution for the management of slaughterhouses, meat markets and the meat distribution system under the aegis of the Ministry of Municipalities;
- management of the start-up of operations on a commercial basis of the three modern slaughterhouses in Sana'a, Taiz and Hodeidah, and other new slaughterhouses;
- training of and handing over of responsibilities to Yemeni management and key staff;
- improvement of techniques and standards of hygiene in the slaughtering process and the meat distribution systems;
- establishment of adequate meat inspection procedures and determination of standards for approval or condemnation of meat;
- introduction of proper handling and curing systems for hides and skins, and identification of market outlets;
- reconstruction and replacement of meat markets;
- construction of slaughterhouses in other major population centres.

The project is financed by:

- the Netherlands Government (consultancy services and overseas training of counterparts);
- the Government of the Yemen Arab Republic (working capital and cost of additional equipment for the slaughterhouses).

Duties of the Consultants

The duties of the consultants can be summarized as follows:

- Establishment of a head office for the central management of all the slaughterhouses and meat markets.
- Design of the organizational structure, the administrative procedures, the accounting system and the various forms and documents required.
- Incorporation of the project into an autonomous legal body in order to establish the slaughterhouse and meat market operations as an independent and self-sufficient activity, thus guaranteeing continuity.
- Recruitment of all the necessary staff, fixing of salary scales and drawing up of staff regulations.
- Technical inspection of the facilities before they are handed over by the contractor.
- Making the slaughterhouses technically operational, including rectification of a number of shortcomings in the design and the addition of technical facilities not provided for in the design specifications.
- Carrying out of tests and trials.
- Negotiations on slaughtering and delivery fees and the rents for the meat stalls to be charged to butchers, and on remuneration to be paid to the self-employed slaughtermen.
- Training of the slaughtermen in modern slaughtering techniques (line operation).

- Arrangement of overseas training for managers.
- Work has involved the design and supervision of the building and installation works for the rehabilitated meat markets, for new slaughterhouses and for improvements to the three existing slaughterhouses, as well as water treatment/waste disposal plants.
- Bearing of executive management responsibilities for the whole project until handover to the trained Yemeni counterparts.
- Advice to the Ministry of Municipalities on the legislation required with regard to slaughtering, and the inspection and sale of meat.
- Recommendations on the disposal or processing of slaughtering waste products. This has involved a feasibility study for the establishment of a dry-rendering plant.
- Identification and implementation of the best method of preserving hides and skins, and organization of the marketing of cured hides and skins. A study has been made on the feasibility of establishing tanneries in the YAR.
- Preparation of operations and accounting manuals.

Tanzania

Preparation of Action Programmes for the Rehabilitation of
the Leather Subsector

1988-1989

Within the framework of a major rehabilitation and restructuring programme for the Tanzanian industry, financed by the World Bank, BMB was requested to carry out a study of the leather industry subsector.

The assignment included a diagnostic study of the subsector to identify sectoral, infrastructural and firm-specific constraints and to assess the need for restructuring, rehabilitation and reorganization. In addition, the consultants were required to define a programme for corrective measures to be taken at subsectoral level, and to prepare detailed action plans for the rehabilitation and reorganization of the main enterprises in the subsector, all being parastatals. Finally the assignment included monitoring and advisory services for the implementation of the action programmes.

The study comprised not only leather manufacturing (tanneries), footwear manufacturing (including footwear from products other than leather) and leather goods manufacturing, but also the production of and trade in raw materials for the subsector, i.e. hides and skins.

The study was therefore of a macro-economic as well as a micro-economic nature.

More in detail the assignment dealt with the following subjects in respect of the subsector as a whole:

- the macro-economic context, industrial strategy, market orientation;
- the capacities and past performances of the enterprises in the subsector, parastatal as well as private;
- the control structure of the parastatals in the subsector;

- government policies affecting the subsector: trade liberalization, foreign exchange allocation and rates, tariffs and taxes, environmental protection policy;
- management and human resources (motivation, skills) as constraints;
- capital needs and ownership of the enterprises;
- hides and skins: production, trade pattern, pricing system, quality;
- future economic and commercial viability of leather manufacturing, and a proper strategy for revival;
- future economic and commercial viability of footwear and leather goods manufacturing, and a strategy for recovery.

In addition a detailed study was made of five large enterprises in the subsector and action plans prepared for their revival. This comprised a detailed analysis of the past performance and present situation of the enterprises (history, capacity assessment, actual production during past ten years, present physical condition of all assets, financial position, and capabilities and performance of management and staff). The action programmes prepared included detailed plans for financial restructuring, technical rehabilitation, future production, marketing strategy, in addition to recommendations on (changes in) the processing, recycling, maintenance, effluent treatment, management information, accounting and staff remuneration systems. The reporting further included cost calculations, financial projections, calculation of internal rates of return, and sensitivity tests for the enterprises.

Sudan

Rehabilitation and Improvement of Efficiency in the Raw Hides, Skins and Leather Processing Subsector

1986-1987

Under World Bank financing the Government of the Sudan assigned BMB to carry out a study into the possibilities of rehabilitating and improving the efficiency of the hides, skins and leather processing subsector. On the basis of the results of the study the consultants were to advise the Government on the best strategy to follow as regards the subsector as a whole.

Initially the study dealt with the macroeconomic aspects of the subsector. In this context the situation of hides and skins as raw materials was assessed in terms of present production, potential growth, the trade pattern, use and destination of the raw materials, quality, and conservation systems. A survey of Government interventions in the subsector (in such areas as legislation, taxation, price controls, export bans, and staffing policies) constituted part of the study, as did an evaluation of their effects. This evaluation gave rise to recommendations that the Government adjust its involvement in the subsector.

Part of the overall study focused on the efficiency and adequacy of the existing support facilities in the subsector, namely the organization of improving the quality of the raw hides and skins and the legislation in this respect, training opportunities, research possibilities, common facilities, and advisory services. Recommendations for the institutional improvement or establishment of these facilities were worked out and the estimated costs calculated and assessed against the benefits.

An assessment of the economic viability of domestic leather manufacturing and footwear manufacturing was carried out, embracing not only modern mechanized systems of production, but also the traditional artisanal production methods which are still widely practised in the Sudan. The outcome of the assessment was positive.

Apart from the aspects relating to the subsector as a whole, the assignment included an in-depth investigation into four state-owned tanneries, which together represent the major part of the leather manufacturing industry in the Sudan. The investigation comprised a full technical survey of the state of buildings, machinery, and equipment, the efficiency of the processing systems and the adequacy of the tanneries' effluent treatment. As a result of the survey, recommendations for improvement were made and the costs of rehabilitation and/or rationalization were estimated.

In addition, the financial position of the tanneries was assessed, as were the possibilities of financial recovery after rehabilitation, and the financing required for such a recovery. Cash flow projections were made for all the tanneries and the internal rate of return calculated under varying assumptions. Recommendations were made on the operational policy which could best be followed by the tanneries.

Finally a complete institutional survey was carried out in the four tanneries, and recommendations made concerning improved management, organization, management information systems, accounting, staffing and staff remuneration systems. A complete accounting manual for the tanneries was prepared and added to the separate reports for each of the tanneries.

The final element of the overall study was a brief survey to indicate the possibilities and prospects of the utilization of waste products from the tanneries and by-products (other than hides and skins) from slaughtering.

The results of the whole study were presented in a nine-volume report plus an executive summary.

The study - in which Sudanese consultants also participated - involved four months of field work, and three months' report preparation.

- Chad Diagnostic Study of MAGAVET (Government Agency for the Supply of Veterinary Products)
- 1988 SORCA-BMB was selected by the Ministry of Livestock to carry out a diagnostic study of this Agency. The study developed specific recommendations concerning the privatization of the company and the abolition of its monopoly. It also recommended that MAGAVET should adapt a more aggressive sales policy, apply a healthier price margin policy, and exercise better stock control. As a follow-up, the Ministry of Livestock asked SORCA-BMB to prepare a draft of Articles of Agreement for MAGAVET, after its restructuring, which would include the possibility of its partial or total privatization.
- Togo Development of Animal Traction and Associated Animal Husbandry
- 1987 This EDF-financed study carried out by SORCA-BMB aimed at determining the methodology to be used for the introduction into animal traction of female animals, experimentation with a single ox, and the means of achieving a higher work rate from animals previously used for other purposes. The project also involved a rural community approach, ensuring the participation of groups from different backgrounds, and incorporating extension methods based on community development techniques.
- Sri Lanka Dairy Development II Project
- 1986-1987 On behalf of the Government of the Netherlands, BMB assisted in the design of a programme of support services for dairy farmers. The present situation of dairy smallholders was assessed and subsequently practical packages of support services were designed for each milkshed area in order to address the problems identified in the dairy sector. The packages designed, including recommendations on animal breeding, health, nutrition, training and extension, were then discussed in a one-week workshop held in Colombo, and a pilot programme was designed to test the effectiveness of the services proposed.
- YAR Market Study Rendering Plant Products
- 1986 At the site of the Sana'a Municipal Slaughterhouse a rendering plant processes the usable remnants of slaughtered animals into bone, meat and blood meal as well as tallow. BMB was requested to undertake a marketing

study regarding these rendering plant products. The study involved an in-depth investigation of the demand for the products (and the mix of ingredients), the design of optimum distribution modalities while minimizing administrative work, as well as a sensitivity analysis in respect of cost/price relations at different production levels.

Somalia

Technical Assistance to Milk Factory, Mogadishu

1985-1988

BMB were retained by the EEC to provide a managing director, a technical manager and a laboratory expert (short-term) to start up the rehabilitated dairy factory. Their task was to supervise and guide the re-launch. This included the design and implementation of management methods and procedures, accounting procedures, a management information system, milk and other raw material procurement, milk distribution and sales, production control, quality control, plant maintenance procedures, staff selection and staff and employee training. They were also responsible for training counterparts to be their management successors.

Kenya

Rehabilitation Programme for Livestock Sector

1985

At the request of the FAO Investment Centre, BMB participated in a formulation/preparation mission funded by IFAD to analyse the Kenyan livestock sector. The aim was to identify priority areas which had suffered most from inadequate recurrent funding, and to formulate a loan programme in support of essential ongoing services and inputs to livestock owners. The BMB expert analysed past fiscal policies and institutional constraints, and formulated recommendations for future fiscal policies, reorganization of accounting and budgetary procedures, introduction of cost recovery and control strategies, and design of the project programme and loan facilities.

Somalia

Milk Supply Project

1979-1980

BMB were retained by the European Development Fund and the State Planning Commission of the Government of Somalia to advise on the rehabilitation and expansion of the country's major dairy plant and the milk supply to Mogadishu generally. The programme concerned the creation of improved facilities for milk processing, handling, distribution, marketing and factory management. The study further examined the whole future milk supply problem for Mogadishu, investigated livestock and feedstuffs resources and programmes, and recommended government measures for increasing future milk supplies.

- Mali Dairy and Wood Products Industries
- 1978-1986 At the request of the Mali Government and the World Bank, SORCA-BMB and BMB carried out studies on the rehabilitation and expansion of operations of the national dairy/milk processing and wood products industries. The consultants were subsequently engaged via a series of short-term missions to assist in management of the dairy industry project under a World Bank loan.
- Indonesia Evaluation Mission FAO/IBRD - Livestock Development
- 1978 As part of an evaluation mission a BMB financial expert assisted in planning the credit payment system for a livestock project.
- Saudi Arabia Feasibility Study for the Establishment of an Integrated Livestock and Dairy Project
- 1978 During 1978 BMB prepared a detailed study and technical and marketing designs for a large integrated milk processing industry in Saudi Arabia. BMB were retained as consultants and managers for the study, design and implementation of the envisaged project.
- Egypt Animal Feed Plant/Poultry Breeding Project Fayoum
- 1977 Tasks of the BMB expert mission were (a) to work out a detailed proposal for the establishment of an animal feed plant in Fayoum, to formulate the technical specifications of the plant, to recommend on the organizational set-up; (b) to discuss the technical details and organizational set-up of a poultry breeding project in Fayoum and at the same time undertake a separate study on the organization and socio-economic function of the poultry sector in Egypt.
- Tanzania National Cold Chain Operations
- 1976-1980 In 1976 BMB were requested by the Netherlands Government to participate in a joint Dutch-Tanzanian evaluation mission to assess NCCO (a cold storage chain with a large central store, a series of up-country centres, and a number of urban sales outlets). As a result BMB were engaged for a 1.5 year period to monitor the company's performance and the implementation of the bilaterally agreed restructuring programme. Subsequently BMB provided managerial staff for NCCO line functions (accountancy, transportation, cold storage, fish and meat processing, marketing). Local staff were trained to succeed the expatriates in these management functions.

Mali Survey for the Development of an Irrigable Zone

1975 At the demand of UNDP and in association with other specialized consulting firms, SORCA-BMB participated in a study concerning the reclamation of the Niger valley following the building of the Selingué dam on the Sankarani river. The experts tackled the health and sanitary problems and the production and marketing of cattle and meat. Their recommendations covered, besides the rehabilitation of the livestock, the diversification of meat production sources, the improvement of quality and of regularity in supplies, as well as the perspectives of national and international distribution.

Indonesia Meat Supplies to the City of Jakarta

1969 At the request of the Belgian Government and on behalf of the Government of Indonesia, SORCA-BMB carried out a survey for the rationalization of meat supply to Jakarta. The mission covered factfinding activities, design and implementation of a slaughterhouse with programme for incremental output, meat transport, profitability study.

B.5.2 Education, Training and Extension

Togo Provision of an Extension Systems Expert to the Ministry of Rural Development

1989-date SORCA-BMB is providing an extension systems expert to assist in the implementation of a new centralized approach to agricultural extension and training in Togo (IBRD financing). The duties of the expert are to:

- help identify the areas most needing extension services
- provide technical and training support to the planning, organization and execution of services
- determine equipment requirements
- regularly participate in training and planning sessions
- contribute to the preparation of all training materials
- participate in the preparation of annual training budgets.

YAR Consumer Education Programme

1988-date Following on from a similar programme in 1985, in 1988 a BMB-Yemeni mission formulated an expanded Consumer Education Programme (CEP) for the Management of Municipal Slaughterhouses and Meat Markets Project which is being implemented under Dutch Government funding. The objective

of the current CEP is to inform the Yemeni people about the benefits of consuming hygienically slaughtered meat and the positive impact of rendering plant products on animal health. The mission designed a comprehensive media plan incorporating television spots, commercials and a documentary, radio spots, audio cassettes, posters, stickers and leaflets to communicate the messages. This media plan was specially designed for the target groups and for both sexes in an Islamic society. A mission in mid-1989 recommended minor adaptations to the planned finalization of activities.

Solomon Islands - Technical Assistance to Human Resources Development Project

1987-date Under financing from the European Development Fund, SORCA-BMB is providing the services of a Project Coordinator to assist the Government of the Solomon Islands in setting up and implementing the above project. His main tasks are to:

- help define action programmes, identify local staff and encourage appropriate training and development support to the project
- liaise with all parties involved to ensure that project aims are met
- advise on the project's manpower development aspects and assist the Government in developing its own National Manpower Development Policy
- help further define the priorities for training needs in the context of the project and the overall economic and social development of the Islands.

Malawi

Promotion of Women in Rural Areas at the Rural Growth Centres

1987-1989 MEC-BMB provided training and technical support to the GTZ-financed project to assist rural women to start up commercial and labour-saving activities and to build up their self-help potential. The consultancy input focused on the start-up and further development of small enterprises (groundnut oil extraction, soap production) and included the selection of equipment, institutional development and the elaboration of tailor-made training for women in technical and business aspects. "Business packages" were developed to allow for easy duplication of successful enterprises, incorporating predefined equipment, technical and process training, and training in the use of basic recording and accounting systems. The transfer of knowledge to local counterparts was an important aspect of the project and to this end MEC-BMB also developed a training of trainers course and comprehensive workbooks/reference manuals.

Kenya

Media Assistance for Zerograzing Project and Cockerel Exchange Programme

1986

At the request of the Netherlands Government, a BMB expert carried out a short assignment to supply the above-mentioned projects with the necessary training and information materials. During the assignment some 350 black and white photographs and 150 colour slides were produced. The BMB expert also produced draft texts for nine manuals and designed posters, stickers and leaflets.

YAR

Consumer Information Programme Part I

1985

Under financing from the Netherlands Government, BMB is managing a slaughterhouse project in YAR. A training survey revealed that a consumer information programme was needed to inform the local population about the advantages of stamped meat. It was decided to set up the recommended programme within the framework of the slaughterhouse project. To obtain the necessary information on the content, the medium to be used and the target groups an orientation mission was fielded. This resulted in the production of a documentary film of approximately 15 minutes and four spots of four minutes each. Post production was carried out in corporation with two Yemeni counterparts. Both films and spots have been broadcast on Yemeni television.

Indonesia

Establishment of a Vocational Educational Development Centre

1984-1988

The purpose of this project was to establish a Vocational Educational Development Centre in Jogjakarta to train sixty teachers each year in arts and crafts (subjects such as graphic art and ceramics). The ultimate aim was to improve the quality of output of local craftsmen supplying both the indigenous and local markets. The BMB team consisted of a total of six consultants, whose services were spread over the four-year duration of the project. In addition to the fundamental task of training local VEDC staff to carry on the work of the Centre, the consultants advised on the organization of the Centre itself and in particular on the specialist practical facilities. They wrote training programmes for the three-year VEDC teachers' course, and for the pupils of the satellite Craft Schools associated with the Centre.

- Costa Rica Evaluation of the International Education Project:
"Development of Agro-Based Industries"
- 1983 The project is a joint Costa Rican/Dutch education project emphasizing the development of agro-based industries. The project is aimed at Latin American institutions which provide technical assistance to agro-industries run by small farmers and farmers' cooperatives. Together with an expert from the Research Institute for Management Science (RVB) in Delft, a BMB expert carried out a mid-term evaluation of the project.
- Kenya Textile Training Institute
- 1978-1987 The Ministry of Labour in Kenya requested BMB to provide comprehensive training for its national textile industry in a new Textile Training Institute. The project received long-term technical and financial assistance from the Netherlands Government. BMB were assigned to manage the Institute, to survey the training needs of the textile industry in Kenya, to plan the organization of the institute, to develop course planning and curricula and to prepare local staff for the management of the institute and the conduct of its training courses. Courses were developed at technician, supervisory and skill upgrading levels for spinning, weaving, finishing, and at supervisory and skill upgrading levels for garments. Support services developed included engineering maintenance, a laboratory and a visual aids production department.
- West Africa West African Agricultural Management Development Survey
- 1978-1979 BMB were retained by the World Bank together with The Coverdale Organisation of the United Kingdom and in collaboration with SORCA-BMB, to carry out an in-depth survey of the training needs for agricultural and rural development project management staff in five representative countries in West Africa. As a result of the survey, recommendations were made for the improvement of and investment in facilities for the training of local managers. The follow-up to the study and implementation of its recommendations is expected to make a major impact on the rate of rural development in West Africa.
- Tanzania Establishment of the National Sugar Institute
- 1975-1984 Design and start-up of a National Training Institute for the Sugar Development Corporation. Implementation of vocational and technical training programmes for factory

operating personnel and field and maintenance skilled and semi-skilled workers. BMB assignment financed by the Netherlands Government.

B.5.3 General Experience in Kenya, in Addition to Previous References

Kenya Management Support to Kyu Garments Ltd.

- 1987-1989 Under financing from the Netherlands Government, a BMB consultant provided interim general management services to this garment manufacturing operation. The main focus of his activities was on:
- supervision and, where necessary, reorganization of production, including introduction of both production and quality control systems
 - review of the company organization and of division of responsibilities and tasks
 - establishment of internal training function (training of counterpart, quality controller, supervisors and training instructors in i.a. preventive maintenance, safety, cost awareness and standard time assessment).

Kenya Pre-Feasibility Study of Spinning Mill in Busia

- 1983 In the process of decentralizing development planning, the Kenya Government was anxious to expand employment opportunities in the more remote areas. With Netherlands Government financing, BMB investigated the feasibility of erecting a small spinning mill in Busia district, located in the far west of the country. The study showed that a mill alone would not be financially viable, but that a mill plus ginnery should produce an acceptable IRR. A further study was recommended, for which terms of reference were written to include other than financial considerations, such as administration, farmer participation and the role of farmers' cooperatives.

Kenya Seed Potato Storage

- 1982 A BMB expert participated in an appraisal mission on behalf of the Netherlands Government to advise on the financial feasibility of a potato storage complex (both cold storage and forced ventilation). Analyses comprised the growing costs of seeds, costs of grading, storage, transport, handling and opportunity costs, due to non-availability of seed potatoes.

- Kenya Financial Evaluation of Kibirigwi Irrigation Scheme
- 1981 A BMB expert was assigned to assist in the financial evaluation of this irrigation project with a view to determining whether the project activities had become self-supporting. As a result a new strategy was formulated by the mission, comprising three phases of further development: extension of irrigated acreage, increasing of yields by improved crop husbandry, and organization of a cultivation pattern aimed at high sales prices.
- Kenya Maize Milling Project
- 1978 At the request of the Netherlands Government, BMB executed an appraisal of a planned Dry Maize Mill in the Kakamega district. To that end, an analysis was made of supply sources, purchase and sales prices, start-up and operating costs, debt services, etc. The resulting feasibility study cum sensitivity analysis was presented to the client as well as to several entities in Kenya.
- Kenya Selection of Commercial Type of Aircraft
- 1969 Consultancy services to East African Airways and Air Transport Engineering, Kenya, for the selection of a type of commercial airplane. Study of characteristics and profitability of six competing aircraft; presentation of conclusions and recommendations. SORCA-BMB assignment.

B.6 NUMBER OF STAFF AVAILABLE AND TO BE ASSIGNED

A breakdown of the staff of BMB, by expertise, and the number of consultants currently assigned to projects is provided below.

<u>Expertise</u>	<u>Total Available</u>	<u>Assigned</u>
Institution Development Specialists	6	4
Development Banking and Credit Specialists	8	6
Financial Analysts	7	6
Financial Administration Specialists	8	5
Data Specialists	5	3
Agro-Economists	4	3
Agro-Industry Specialists	2	1
Agricultural/Rural Development Specialists	7	5
Livestock Production Specialists	2	2
Agricultural Engineers	3	2
Civil Engineers	2	2
Management Organization Specialists	8	5
Marketing Specialists	6	4
Education/Training Specialists	7	6
Small-Scale Business Development Specialists	4	2
Transport Specialists	2	1
Women in Development Specialists	<u>3</u>	<u>3</u>
	84	60

Staff to be Assigned to the PMU

Mr Johannes W.M. Lubbers is to be assigned by BMB for the long-term assignment as Finance Administration Officer for the PMU of the ASAL Kenya Livestock Development Programme.

The short-term specialists put forward as examples of the type of relevant expertise that can be made available are:

Animal Production Expert	V.J. Clarke
Livestock Management Expert	M.B. Jacob
Livestock Economist and Marketing Expert	I.R. McDonald
Remote Sensing Expert	J.C. Taylor
Land Use and Water Resources Expert	P.T. Schure

Dr L.J. Poyck, BMB's Director East Africa, will provide backstopping and support to the team in the field.

The full experience records of the BMB staff to be assigned to the PMU are presented in Annex D.4.

ANNEX C

ORGANIZATION, IMPLEMENTATION METHOD, WORK PROGRAMME
AND REPORTING

C.1. ASSOCIATION ARRANGEMENT

In view of the requirement that "only those proposals that link European and Kenya Consultants will be considered by the tender committee", Mutiso Consultants Ltd is joining forces with the Dutch company BMB, Management Consulting for Development B.V. for the implementation of this assignment. The two companies have a long-term association agreement and are not coming together on a one-off basis for the purposes of this tender.

The main contractor will be Mutiso Consultants Ltd, who will bear the ultimate responsibility for the proper execution of the assignment.

Mutiso Consultants Ltd, acting as the leading partner, will hold contract negotiations with the Client, sign the contract and liaise with the Client as necessary during the execution of the assignment. Mutiso Consultants Ltd will, however, during the preparation as well as the execution of the assignment, closely confer with BMB in all matters which may affect the assignment.

The Regional Planning Officer, the Livestock Officer and the Pilot will be provided by Mutiso Consultants Ltd. BMB will supply the Finance Administration Officer.

The contents of this proposal have been mutually agreed between Mutiso Consultants Ltd and BMB.

C.2 COMMENTS ON THE TERMS OF REFERENCE

C.2.1 Coordination of Different Management Staff

The objective of the ASAL Kenya Livestock Development Programme is "to develop a sustainable improvement in the production and marketing of livestock from the arid and semi-arid lands (ASAL) of Kenya".

The implementation of the programme is the responsibility of the Ministry of Livestock Development (MOLD). To direct the implementation on a day-to-day basis the MOLD will establish a Programme Management Unit (PMU) based in Isiolo, which will plan, implement and monitor the proposed activities according to the Terms of Reference (Annex A).

The staff already secured for the Programme Management Unit are a senior MOLD Programme Manager/Coordinator, a Technical Operations Coordinator and an Animal Production and Marketing Coordinator, the latter two directly recruited by the EEC. The Consultants are to provide the Finance Administration Officer, Regional Planning Officer, Livestock Officer (Range-lands Improvement) and a Pilot to complete the staffing of the PMU.

The staffing structure makes considerable demands on the internal coordination and communication of the PMU. Given that the Government of Kenya- and EEC-derived staff are already installed before the contract has been awarded to the Consultants, it is important that there should be extensive discussions and agreement on the work modalities to establish team spirit and cooperation from the moment the Consultants' experts arrive at their posts.

Mutiso Consultants Ltd and BMB firmly believe that in projects of this nature it is important to work with and not for the Client. It is clearly understood that the MOLD appointed head of the PMU, the Programme Manager/Coordinator, holds full management power and responsibility. Given that he is already at his post and has the requisite experience, the Consultants anticipate that his support and guidance will enable the staff provided to work effectively as a team for the MOLD.

C.2.2 Programme Management Structure

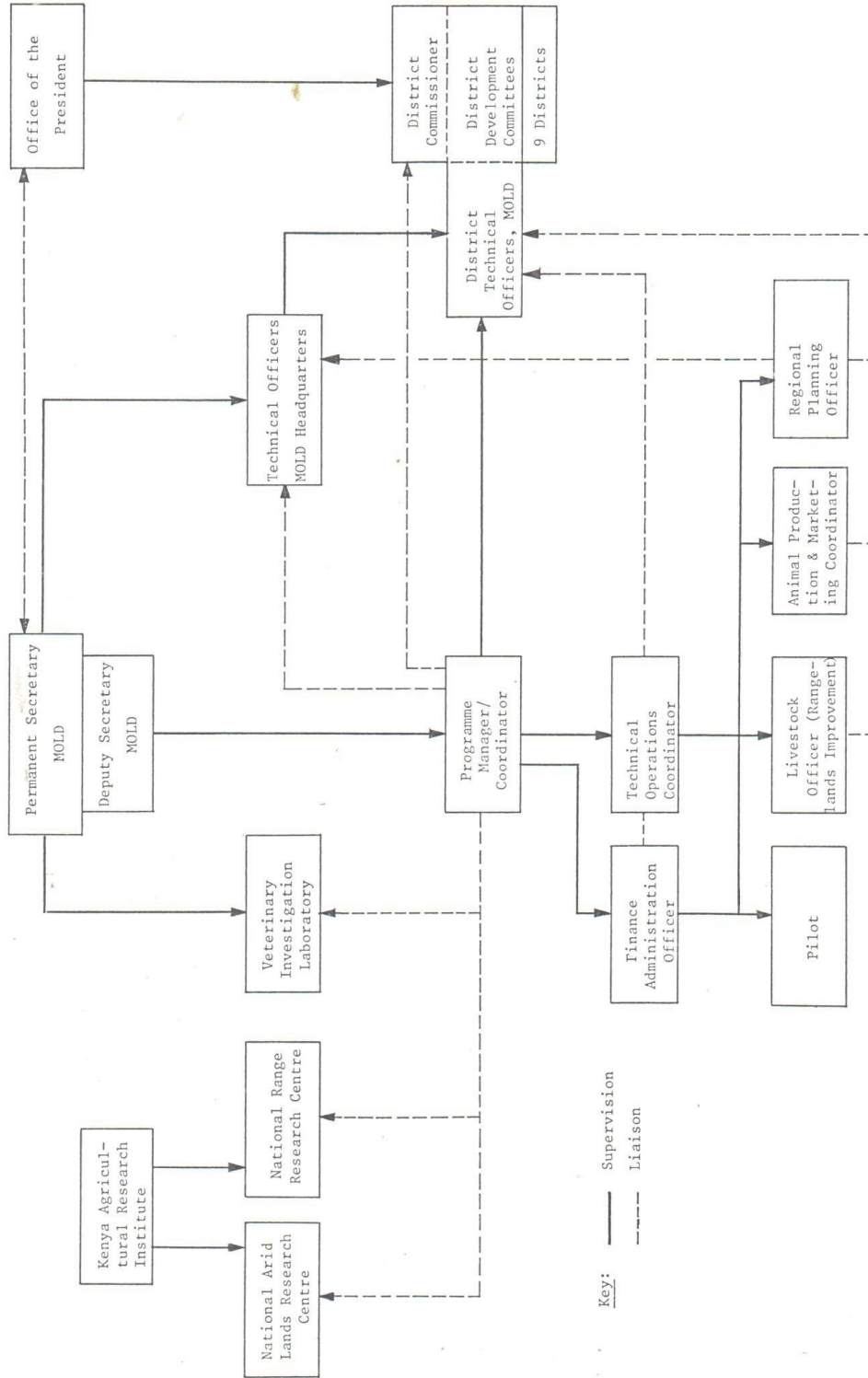
The Terms of Reference for the individual experts are clear. Additionally, the Consultants present their understanding of the management structure in the form of an organogram, reproduced overleaf.

The lines of supervision by the Ministry are clear, with the Programme Manager/Coordinator taking responsibility for directing the work of the experts.

From the individual job descriptions it is clear that the Technical Operations Coordinator, who reports to the Programme Manager/Coordinator, is responsible for supervising the three technical experts. The Finance Administration Officer is responsible for non-technical matters, including the supervision of the Pilot.

In the Consultants' view, and as shown in the organogram, the Finance Administration Officer, the Livestock Officer, the Regional Planning Officer and the Animal Production and Marketing Coordinator will all have to liaise extensively with the District Development Committees (DDCs) and the MOLD District staff, even though in the individual job descriptions the only clear specification on liaison is for the Regional Planning Officer.

Organizational Structure of the Project Management Unit (PMU)
in the Government of Kenya Context



If the institutional development of and support to both the MOLD District staff and the DDCs needed to achieve long-term programme sustainability is to be effectively carried out, coordinated liaison efforts will have to be undertaken by all members of the PMU under delegated authority of the Programme Manager/Coordinator.

Although the general Terms of Reference mention programme monitoring and evaluation, there is no specific mention or elaboration of this in the job descriptions. It is the Consultants' view that a strong programme monitoring and evaluation system is an essential tool for identifying constraints and opportunities, thus enabling corrective and timely measures to be taken in the implementation of a complex programme. A conscious decision must therefore be made by the Client as to whether a special unit should be created to collect and handle programme monitoring and evaluation data. The Government of Kenya has recently developed a standardized project monitoring and evaluation system which the Consultants understand will be introduced into all projects in the near future. It is strongly recommended that this system be adopted by the programme and further elaborated to meet the specific PMU needs.

The normal professional practice is to allow such monitoring and evaluation units to function as independently as possible. They can be located within the implementing agency, in this case the PMU, or outside it. Whichever situation the Client prefers, a specific expert must be made responsible for the design of a monitoring and evaluation framework and the collection and analysis of the data.

If such data are not systematically collected from the outset, the PMU will lack the management tools to assess the impact of the activities generated. Furthermore, there will be delays

before annual programme data for the districts can be analysed and utilised in both budgeting and planning activities at MOLD and DDC levels. Finally, such data are needed to show which activities bring the highest return, particularly with respect to social and environmental sustainability, cost effectiveness and cost sharing.

The logical expert to be placed in charge of such a unit, if created within the PMU, would be the Regional Planning Officer. If this approach is taken, it would be preferable for him to report directly to the Programme Manager/Coordinator, thereby shortening the chain of command and increasing the probability of corrective management measures being taken expeditiously. This expanded scope for the Regional Planning Officer has not been shown in the organogram as it involves a major decision on the part of the Client.

C.3 GENERAL APPROACH AND METHODOLOGY

C.3.1 Introduction

Given the fact that two components of the complete PMU (Government of Kenya personnel and EEC personnel) are already in place, it is not feasible for the Consultants to produce an elaborate blueprint workplan.

The approach of the Consultants would be that, following the award of the contract, the complete PMU should hold extensive discussions on the workplan and adopt or modify whatever has already been elaborated by the team on the ground. This can be most efficiently achieved by holding a two-day meeting in Isiolo at which the complete staff of the PMU are present as well as the technical officers from the various districts, representing their DDCs. A meeting of this kind would be an excellent way of generating the team spirit essential for the success of the programme.

After agreement on general workplan approaches, including indicative budgeting, specific proposals from the districts should be discussed in those districts with the Executive Committees of the DDCs. The DDCs will prioritize their district activities as is required by law.

The Consultants feel that the following issues should be considered as significant elements in the elaboration of a detailed workplan once the full PMU is staffed.

C.3.2 District Focus and Community Mobilization

Since its establishment in 1983, the District Focus for Rural Development Strategy is the Government of Kenya's premier strategy for the development of the rural areas. Its objectives are that all programme activities be initiated and implemented through the DDCs. This is recognized by the Terms of Reference which state that all programme activities are to be sanctioned by the DDCs.

The Consultants have the advantage that they participated in the creation of the District Focus for Rural Development Strategy. Subsequently they have been involved in the identification, formulation, planning, monitoring and evaluation of many projects for the Government of Kenya, bilateral and multilateral donors, and many non-governmental organizations (NGOs). They have also assisted DDCs directly. The project directors from both companies have considerable practical and consulting experience on the District Focus Strategy. They will ensure, during the backstopping activities, that the principles of this strategy are adhered to.

The experts to be assigned to the programme are equally familiar with the operations of DDCs. They are aware that activities have to be generated at the sub-locational, locational and divisional levels of the DDC structure for consideration by the Executive Committee of the DDC before approval by the full DDC. Inputs by the experts to the District Executive Committee in particular, and the DDC in general, will be channelled through the District Livestock Committee, the subcommittee of the DDC primarily responsible for livestock programmes. The District Livestock Officer is a key figure in the leadership of this subcommittee.

For the DDC project activity identification process to work efficiently, community participation is essential. Mobilizing communities in pastoral areas to participate in activity identification undertaken by the DDCs has remained a problem. This is an issue which must be addressed by the programme. The Consultants consider the issue so central that in identifying suitable experts for the specialized back-up services they have paid considerable attention to the experience of candidates in this area.

C.3.3 Coordination and Institution Building

The project area is not a clean slate as far as production and rehabilitation techniques are concerned. The MOLD has been active in this area for many years and a wealth of knowledge is therefore available. This must be tapped by retrieving relevant experience from the field officers.

Many donors have funded activities in the project area. Among these are the major donors USAID, ODA, DGIS, NORAD, GTZ, the World Bank and the World Food Programme. Other major donors, such as DANIDA, are planning to start (or have already started) activities in parts of the ASAL area. Some NGOs have also worked in the area. Among these are Oxfam, Kenya Freedom from Hunger, Save the Children Fund, ITDG and Saltlick. Other significant NGOs are the various church organizations and churches such as the National Council of Churches of Kenya, the Catholic Dioceses, the CPK Diocese, the Methodist Diocese, the African Inland Church and the Mennonites.

All these various organizations have struggled with the technical issues of enhancing livestock production by means of improvement in breeding, fodder and forage, provision for better animal health and water harvesting for enhanced fodder

production. The relevant activities and contributions of these organizations should be institutionalized, by being coordinated by the various DDCs, so that the programme can tap their knowledge and avoid duplication of efforts. Such institutionalization will enable the programme to start systematic implementation during the first three years, thereby avoiding unnecessary experimentation.

C.3.4 Cost Sharing and Self-Financing Systems

The tasks of the PMU have been described on pages 1 and 2 of the document "Terms of Reference and Job Descriptions for the Programme Management Unit (PMU)", reproduced in Annex A. The major project implementation components are sufficiently summarized in paragraphs 2.1.1 through to and including 2.1.4 of the "Technical and Administrative Provisions for Implementation" which was attached to the Letter of Invitation.

However, it is the opinion of the Consultants that one of the major guiding principles of "the development process" is the strengthening of market forces in the widest sense. This would imply the need for the PMU and DDCs to pay specific attention to the costs (including social costs) and benefits of all activities to ensure their sustainability. It may well be that consideration should be given to the privatization of services and marketing channels. This is an aspect of cost sharing which is not generally highlighted in development theory.

A second, more transparent, aspect of cost sharing is the elaboration of strategies which share the cost of the provision of services between the local community and the Government. An example of this is the maintenance of watering wells by the local communities. It should be clear that as

the pastoral communities become more integrated in the national economy they, like other communities in Kenya, will be expected to increasingly provide community labour and other resources as part of the development effort of their communities.

Efforts to understand how different ASAL communities react to the clearly articulated government demand that there be cost sharing in development should be a concern of the PMU in preparing the workplan.

A further aspect of cost sharing is the need to identify technologies related to livestock production at low recurrent cost which communities can adopt and sustain. Efforts towards this end have been made by earlier projects, e.g. sub-surface dams. Consideration should be given to the introduction of grazing and watering fees for the use of holding grounds and watering points, which could be ploughed back into the communities for use in other development activities.

C.3.5 Livestock Production and Marketing

The primary aim of the programme is "to develop a sustainable improvement in the production and marketing of livestock from the arid and semi-arid lands (ASAL) of Kenya".

The programme follows close on the Government's relaunch of the restructured Kenya Meat Commission (KMC), which historically was not only the main buyer of ASAL livestock, but also a buyer of last resort. When the KMC was inactive, private businessmen established new patterns of marketing ASAL livestock. Not very much is known about the new live animal trading networks. What is clear is that the supporting infrastructure of stock routes, holding grounds and auctions,

used by KMC and traders in the past, has deteriorated. It is clear then that one of the first activities of the programme will be to ensure that the infrastructure is functioning optimally and that it is used by both the KMC and any new private business networks.

In the long term, the objectives of the proposed programme are the integration of the pastoralists in the ASAL areas into the national economy, the improvement of their incomes and the generation of better employment opportunities. Therefore improvements in both production and marketing must be inter-related in the design of programme activities if higher incomes are to be achieved. This suggests identifying suitable livestock product processing activities to be introduced in the programme area so as to generate economic activities over and above livestock keeping.

The major national channels for funnelling livestock from the northern ASALs to the consumption areas are through Kapenguria, Marigat, Isiolo, Mwingi, Garissa and Garsen. Although the historic marketing structure is evolving, it is still dependent on moving live animals to be slaughtered in the fattening and consuming areas.

To improve incomes in the ASAL areas, consideration should be given to the slaughter of livestock and processing of by-products actually in the ASALs, preferably using the channels established for marketing live animals. Such ASAL-based industry will generate forward and backward linkages which will transform the local economy. Clearly then, one of the tasks for the PMU is to plan the uses of stock routes and holding grounds in innovative and cost-effective ways other than just providing fodder, water, disease control, security and marketing channels for live animals moving into the fattening and consumption areas. Along these lines, planning

development activities located in the ASALs, for example the construction of slaughterhouses, and/or chilling stations, motorized meat transport businesses to supply national consumption areas, leather processing, bone meal production, tallow production, etc. should be a major objective of the programme. The ownership of these desired development facilities can range from County Councils, cooperatives and para-cooperatives to individual businessmen in the ASALs. How the various owners are supported by the programme and which particular resources are needed by different types of activities should be part and parcel of PMU programming.

C.3.6 Training

Training, in the wider sense of community mobilization, para-professional training and district-based upgrading of technical skills, should naturally be a central programme activity in which all the experts are involved under the coordination of the Animal Production and Marketing Specialist, as specified in his job description.

In keeping with the most recent approaches in the development of pastoral peoples, the primary training will be for para-professionals who are community technicians in their respective trades. This approach has the advantage that those who receive training are directly involved in the main production activities of their communities. They can extend their newly acquired knowledge and techniques to their communities within the context of the various socio-cultural systems, through both traditional and modern channels, with relatively little disturbance. It follows, then, that in the process of selecting the trainees the programme must ensure that individuals who are likely to leave the communities are not selected to take advantage of this critical training.

On a second level, the training of community leaders in community activities will also be important. Experience of other ASAL projects in Kenya has shown that the training of DDC members, particularly at the sub-locational, locational and divisional level, and members of other community organizations, e.g. herding groups, harambee groups or even some clan groups, yields very high return in terms of both livestock production and related economic activities.

The training of these community leaders should firstly emphasize analysis of community resources and needs and secondly cover the introduction of proven technologies. It must be borne in mind that the training aim is to use community organization as a development resource, an idea related to cost sharing.

A third level of training is the improvement of skills of the supervising technical staff within the programme, the MOLD and other agencies involved in livestock sector development in the programme area. Traditional professional training is often not sympathetic to the needs of pastoral communities. It rarely seeks to use pastoralists' traditional knowledge and institutions, let alone their historically proven technologies. Such formal training is not imaginative in the context of the harsh ASAL physical environment which historically taught pastoral society to cope with disasters.

Yet it is clear that the pressures created by an exploding population and the dominant national economy are marginalizing some of the traditional survival mechanisms. The technical development staff will need to display creativity and sensitivity in relation to social institutions and production systems in adapting traditional mechanisms to current realities. This third and last level of training is probably the most difficult to realize. The programme will need to review past experiences carefully before offering long-term solutions.

C.4 REPORTING

It is understood that the PMU is required to produce a comprehensive report on the implementation of the programme every six months.

During the execution of the contract Mutiso Consultants Ltd will be responsible for all reporting to the Client, other than the reporting responsibilities of both the Programme Manager/Coordinator and the Technical Operations Coordinator.

C.5 LIMITS OF SERVICES TO BE PROVIDED

This proposal is based on the understanding that the Client will provide and/or make available to the Consultants:

- free furnished accommodation for the contractor's staff;
- transport for project assignments;
- payment of daily subsistence allowance for days spent away from the duty station on official business;
- office space;
- necessary support for obtaining visas and permits, where applicable, required by the staff to enable them to work in Kenya.

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ANNEX D

STAFF CURRICULA

D.1 COMPOSITION OF THE CONSULTING TEAM

The composition of the team of experts assigned to the PMU will be as follows:

Finance Administration Officer	J.W.M. Lubbers
Regional Planning Officer	Z.P. Omwando
Livestock Officer (Rangelands Improvement)	E.I.P. Mweya
Pilot	A.A. Simpson.

The experience records of these experts, containing full descriptions of their qualifications and experience, are presented in Section D.4 of this annex.

The Pilot is to be included in this project on a full-time basis. Attention is drawn to the fact that he is also an expert in livestock management and has been in charge of large dairy, beef, arable agriculture and horticultural estates. He would therefore be available for other functions in the project, subject to the workplan of the PMU.

All necessary backstopping and support services will be provided by Mutiso Consultants Ltd and by the support staff of BMB.

D.2 SUPERVISION AND BACKSTOPPING

In view of the importance of the work of the consultancy team in the field, responsibility for supervision and backstopping will be assumed by Professor G.-C.M. Mutiso (District Focus Planning), Managing Director of Mutiso Consultants Ltd and Dr L.J. Poyck (Regional Planning), Director East Africa of BMB, Management Consulting for Development B.V. This support will take the form of making available to the consulting team the previous experience of Mutiso Consultants Ltd and BMB in similar projects, answering specific queries and, where requested, assigning short-term specialized back-up services.

Professor G.-C.M. Mutiso has extensive experience in research and consulting on rural development planning and management, with special emphasis on the problems of the ASALs. He has participated in the conception and supervision of the implementation of the District Focus for Rural Development Strategy as well as providing consultancy services to DDCs.

Dr L.J. Poyck has extensive experience in planning at national, regional and district level in Kenya. He has been involved in the identification, formulation, budgeting, implementation, monitoring and evaluation of numerous projects in urban and rural development.

The experience records of Professor G.-C.M. Mutiso and Dr L.J. Poyck are included in Section D.4 of this annex.

D.3 PROVISION OF SPECIALIZED BACK-UP SERVICES

In their selection of experts to provide specialized back-up services the Consultants have anticipated a need for more range and livestock related expertise, capacity to study the pastoral communities and their resource base, and project planning capability related to ASALs.

The type of expertise presented here is a sample of the capacity which exists in the two companies and which can be made available if needed. The total expertise available is not limited to these specializations.

Range Ecology Expert	K.O. Farah
Range Management Expert	T.J. Njoka
Livestock Management Expert	M.B. Jacob
Livestock Breeding Expert	D. Kimenye
Animal Production Expert	V.J. Clarke
Livestock Training Expert	C.N. Karue
Livestock Marketing Expert	G.M. Ruigu
Livestock Economist and Marketing Expert	I.R. McDonald
Livestock Economist/Planner	L.G.K. Ngutter
Resource Economist	M. Manundu
Environmentalist	E.N. Marekia
Rural Sociologist/Planner	J.H. van Doorne
Water Resources Specialist	E.N. Petersen
Land Use and Water Resources Expert	P.T. Schure
Remote Sensing Expert	J.C. Taylor

D.4 EXPERIENCE RECORDS OF EXPERTS

EXPERIENCE RECORD of LUBBERS, Johannes W.M.

Nationality: Dutch

Date of Birth: 27 September 1945

Qualifications: Diploma in Bookkeeping, Instituut Praehp,
Haarlem, the Netherlands, 1964

Diploma in Modern Business Administration,
Instituut Praehp, 1966

Business Administration Course, Instituut
Praehp, 1967

Languages: Dutch (native)
English, French

Professional Experience:

1961 - 1967 Fa. C. van Veen, Beverwijk, the Netherlands
Bookkeeper

General accounting work; salary administration;
preparation of annual financial reports

1967 - 1970 Stichting Centraal Eigendombeheer, Heemskerk,
the Netherlands
Bookkeeper

General bookkeeping work; salary administration;
preparation of annual financial reports

1970 - 1971 Voluntary work in Israel

1971 - 1973 Rabo Bank, Heemskerk, the Netherlands
Controller

Responsible for auditing assurance department
accounts and monthly budget control

1973 - 1974 Kennemer Vormingscentrum (school), Velsen, the
Netherlands
Bookkeeper

Responsible for school administration, including
daily bookkeeping, salary administration,
preparation of annual financial report, and
supervision of school inventory and property

1974 - 1985 Organization of Netherlands Volunteers (SNV),
the Hague, the Netherlands

Experience Record of Lubbers, Johannes W.M. (continued)

(1974-1975) Taught bookkeeping at Dar es Salaam
School of Accountancy, Tanzania

(1975-1985) Administrator/Bookkeeper at SNV
offices in Lusaka (Zambia), Yaoundé (Cameroun),
Dar es Salaam (Tanzania) and Kigali (Rwanda).
Responsible for daily bookkeeping, salary
administration (for local and Dutch staff),
preparation of monthly financial reports, import
and export of personal effects and materials,
supervision of SNV transport pool, supervision
of SNV property

1985 - date

Netherlands Ministry of Foreign Affairs
Project Administrator, based at Netherlands
Embassy in Nairobi, Kenya

Responsible for:

- daily administration of three development aid projects
- auditing of financial reports of all Netherlands aid projects in Kenya
- authorization of invoices, claims, declarations, etc. for payment
- liaison with ministries and projects about cash ceiling regulations
- liaison with projects about their liquidity.

EXPERIENCE RECORD of OMWANDO, Zebedeo P.

Nationality: Kenyan

Date of Birth: 10 August 1934

Qualifications: Licentiate Regional Economist, Cuba, 1967
Master of Business Administration (MBA), York University, Canada, 1975
Project Development and Management Course, KIA, 1976
International Workshop Seminar for Senior Professionals, Washington DC, 1983

Languages: English
Spanish, Swahili, Kisii

Professional Experience:

1968 - 1973 Office of the President, Kenya
Accountant
Employed at headquarters and in the provinces. Duties included preparation of estimates, control of expenditure and monthly expenditure reports

1973 - 1975 Study leave, MBA course, York University, Canada, under Government sponsorship

1975 - 1976 Ministry of Labour, Government of Kenya
Head of Accounts Branch
Instrumental in initiating the Ministry of Labour Accounting Unit. Previous to this the Ministry's accounts were under the Office of the President Accounting Unit

1976 - 1978 Office of the President, Government of Kenya
District Development Officer (DDO), Kirinyaga and Nyandarua Districts (Central Province)
Duties included identification and appraisal of development projects and coordination of their implementation in liaison with departmental heads and the Provincial Planning Officers; administration of the Rural Development Fund in the District; Executive Officer and Secretary to the District Development Committee

Experience Record of Omwando, Z.P. (continued)

- duties as Liaison Officer for the Ministry of Local Government in working with the Ministry of Planning and National Development

Consultancies:

Worked with UN Consultant as Government Person on Technical Preparatory Assistance to prepare a Market Centre Project under the Rural Human Settlements, 1983

Consultant to the German Agency for Technical Cooperation (GTZ) to write a report on the use of manuals in urban and regional development in Kenya

Consultant to Office of the President at the Kenya Institute of Administration on the role of local authorities in national, regional and district development

Consultant to the Regional Office of the Friedrich Ebert Foundation (FES) of West Germany in the coordination of training civic leaders in Kenya, 1987-1989. Wrote a book for training on the role of local authorities in planning and national development and the relationship of local authorities with the district development committees

Contracted by the United Nations Centre for Human Settlement (HABITAT) to present a paper on Kenya's experience of government/non-government cooperation and partnership in human settlement and regional development and management.

MINISTRY OF LOCAL GOVERNMENT

Telegrams: "AUTHORITY", Nairobi
Telephone: Nairobi 28411-Ext.
When replying please quote
Ref. No. 330939/85
and date



OFFICE OF THE MINISTER

P.O. Box 30004

NAIROBI

19th July 1989

✓
Mr. Z.P. Omwando

Thro'

The Deputy Secretary (Dev.)
Ministry of Local Government
NAIROBI

Dear Sir

*Forwarded with best wishes
DSD 25/7/89*

ANNUAL LEAVE /RETIREMENT

Further to our letter Ref. 330939/79 dated 8th February, 1989 and yours dated 26th June, 1989 with regard to your leave, I am writing to confirm that you are due to a total of 58 days leave arrived at as follows:

15 days for 1987

30 days for 1988

13 days for 1989

The 58 days leave has therefore been granted to you with effect from 10th July, 1989 to 27th September, 1989.

This therefore means that your effective date of retirement will be 28th September, 1989.

Yours faithfully

B.H. Holla
B.H. HOLLA

FOR: PERMANENT SECRETARY

(79)

330939/(79)

8th February,

89

Mr. Z. P. Omwando,
Senior Planning Officer,
Ministry Headquarters,
NAIROBI.

Dear

RETIREMENT ON AGE GROUND

According to the records held in this office it is indicated that you were born on 10th August, 1934. You will, therefore, attain the compulsory retirement age of 55 years on 9th August, 1989.

Consequently, I enclose herewith the official Secret Act Declaration form on leaving the service and commutation of pensions and address form for your completion as appropriate. The same to be returned to this office for further action urgently. It is also required that you forward to this office your Identity Card for perusal.

A separate communication will be addressed to you regarding your retirement benefits which will be taken up with the Pensions Branch of the Treasury.

I also wish to draw your attention to Regulation N3 (5) regarding leave. You should make arrangements to avail yourself of your leave anytime before the end of July, 1989.

I take this opportunity to thank you most sincerely for the good and efficient service you have loyally rendered to the Government of Kenya and to this Ministry in particular.

I wish you, on your retirement, very successful future and good health.

Yours

(E. M. MASALE)
PERMANENT SECRETARY

Encl.

EXPERIENCE RECORD of MWEYA, Evans I.P.

Nationality: Kenyan

Date of Birth: 27 December 1939

Qualifications: Certificate in Agriculture, Embu Agricultural Institute, Kenya, 1962

Diploma in Range Management, Egerton College, Njoro, Kenya, 1966

B.Sc. (Forestry), University of Idaho, USA, 1972
Major in Range Resources

Diploma in Marketing of Agricultural Products, Colorado State University, USA, 1982

Languages: English, Swahili

Professional Experience:

1962 - 1964 Agricultural Assistant in the newly established settlement schemes in the former scheduled area

1966 - 1969 Assistant Range Officer

Held positions of District Range Officer in Machakos, Kwale and Isiolo

1972 - 1975 Range Officer II

Held position of Provincial Range Officer in Eastern and Rift Valley Provinces. Main work involved planning and implementation of livestock production programmes in the ASAL areas of the two provinces. These included all but three districts (Garissa, Wajir and Mandera) to be covered under the current ASAL/Kenya Livestock Development Programme

1975 - 1977 Range Officer I

Held position of Assistant Livestock Project Coordinator for Phase II of the National Livestock Development Programme funded by the World Bank. The main activities of the programme were planning and implementation of livestock production and marketing projects in the ASAL areas of the country, including the 10 districts covered under the current ASAL/Kenya Livestock Development Programme

Experience Record of Mweya, E.I.P. (continued)

1977 - 1978	Head of Group, Ranch Development Section of Range Management Division
1978 - 1987	Senior Livestock Marketing Officer Held position of Deputy Chief of Livestock Marketing Division. Involved in the development of livestock marketing infrastructure as well as purchases and movement of purchased livestock in the ASAL areas, which included the 10 districts covered under the current ASAL/Kenya Livestock Development Programme
1987 - 1988	Livestock Marketing Expert for the pilot phase of the German-funded Wamba ASAL Food Security Project in Samburu District, on secondment from the Government of Kenya
To August 1989	Ministry of Livestock Development Headquarters, Nairobi Senior Livestock Marketing Officer Retiring at the end of August 1989 after 27 years of service, 22 of which have involved the production and marketing of livestock in the arid and semi-arid areas of Kenya.

EXPERIENCE RECORD of SIMPSON, Andrew A.

Nationality: Kenyan

Date of Birth: 30 November 1943

Qualifications: National Diploma in Agriculture, Harper Adams
Agricultural College, UK

Data Skills: DBase III, Lotus 123, Word Perfect
and Word Star

Flying Training:

Nakuru Aero Club, 1968 and Z. Boskovich Air
Charters, 1969

Private Pilot's Licence, Government of Kenya
Civil Aviation Authority, 1969

Languages: English, Swahili

Flying Experience:

1969 - 1985 Freelance

1986 Assignments for National Geographic Magazine

1987 Assigned to British geothermal exploration
flights

1988 Assignments for British Broadcasting Corporation

1984 - 1989 Flights for Japanese paleontology Rift Valley
expeditions

Aircraft:

Cessna 150, Cessna 152, Cessna 182, Cessna 172R,
Piper 181, Piper 235

Owned and maintained a Cessna 182 aircraft for
10 years

Total hours flying to June 1989: 1,500

Other Professional Experience:

1963 Farm Assistant, dairy and arable farm, Dorset,
England, UK

1964 Farm Assistant, dairy, sheep, pig and arable
farm, Scotland, UK

Experience Record of Simpson, A.A. (continued)

1965 - 1967 Assistant Manager, dairy, coffee and arable
farm, Bahati, Kenya

1967 Assistant Manager, dairy and beef ranch,
Socfinaf, Kenya

1968 - 1972 Assistant Manager, dairy, beef and irrigated
farm, Manera, Delamere Estate, Naivasha, Kenya

1973 - 1975 Manager, dairy, beef and irrigated farm, Manera,
Delamere Estate, Naivasha, Kenya

1975 - 1981 Pan African Vegetable Products, Naivasha, Kenya
Estates Manager

Responsible for:

- development and management of four irrigated
farms of 250 acres each for intensive
vegetable production
- supervision of 1,000 employees
- management and supervision of workshop for
all machinery maintenance

1982 - 1988 Marula Estate, Naivasha, Kenya

(1982) Assistant General Manager
Understudying the management and planning of a
28,000-acre farm

(1983-1988) Marula Estate, General Manager
Responsible for:

- management of the same 28,000-acre farm with
6,000 head of dairy and beef cattle
- planning and implementation of an irrigation
system for the production of supplementary
fodder
- supervision of all the managers, labour and
contractors

1989 Consultant on beef, dairy and arable farming,
agriculture and horticulture

(1989) Consultant to Elsa Trust on Wildlife
Conservation

Administrative Experience:

1963 - 1988 On-the-job experience of administration,
personnel management, task planning and
financial control of large management and labour
forces.

XIII. Limitations:

Endorsements:

XIV. The privileges of the Licence:

The Licence:-

- (i) shall entitle the holder to fly as pilot-in-command or co-pilot of an aeroplane of any of the types specified in the aircraft rating in the licence when the aircraft is flying for any purpose other than public transport or aerial work.
- (ii) shall not entitle the holder to act as pilot-in-command by night while carrying any passenger in the aircraft unless a night rating is included in the licence, or he has within the immediately preceding six months carried out as pilot-in-command not less than five take offs and five landings at night.

Granted on strength of the
E.A. PPL No. 1807(K.1921)
issued on 12-5-1969

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I. GOVERNMENT OF KENYA
CIVIL AVIATION AUTHORITY

II. PRIVATE PILOT'S LICENCE
(AEROPLANES)

III. Number of
licence YK-457-PL

Particulars of holder:

IV. Full name: Andrew Angus SIMPSON

V. Address: P.O. Box 411,
NAIVASHA, (KENYA).

VI. Nationality: KENYAN

VII. Holder's Signature:

VIII. Issued in accordance with the Kenya Civil Aviation Act, 1977 and the Regulations in force thereunder, and with the provisions of the International Convention on Civil Aviation signed on 7th December, 1944.

IX. The holder of this licence is hereby authorised to fly as pilot of aeroplanes in accordance with the terms and conditions specified herein, provided he also holds a current Certificate of Validity in respect of this licence.

X. Signature of
Issuing Officer: Peter J. Muri

Date and stamp: 1st July, 1980.

XI. BY AUTHORITY OF THE
DIRECTOR OF CIVIL AVIATION.

D.C.A.(L) 15

D.C.A.(L) 15

NOTES ON MEDICAL EXAMINATIONS

1. Do not leave renewal of licence until last moment and risk an unlicensed period. Arrange to undergo a medical examination within the last 21 days of the current period of validity; if you are fit, the new period will begin from the end of the old. If you are examined outside these 21 days the new period will begin from the date of the examination.

2. If you do 105 hours' flying within 28 days, you must have an official medical examination before you continue operating.

3. If injured in an accident, or sick for 20 days or more, you must notify the issuing authority and await instructions before resuming flying.

4. If your licence expires when you are away from official medical examination centres, and you need to go on operating, get examined by a local qualified doctor. If certified fit, inform the issuing authority requesting extension. The issuing authority MAY grant it up to three months as an exceptional measure (but not if you could have sought normal renewal). It may grant a second such extension in a similar manner. For Private Pilots a six months' extension MAY be granted on application to the issuing authority and without medical examination.)

5. No renewal or extensions (except Private Pilot's extensions) are granted without medical examination.

TERRITORY OF ISSUE: KENYA

Certificate of Validity of a Licence for Pilots
of Flying Machines.

1. Status of this Certificate.

This CERTIFICATE forms part of.....
PRIVATE Pilot's Licence (flying
machines) number YK-457-PL and must
always be carried with the licence.

2. Validity of the Licence.

The holder of the licence of which this Certificate forms part was medically examined on 6th January 1989 and was assessed as fit to act in the capacity, and subject to the conditions, stated in the licence; he has also satisfied all the other requirements for the renewal of the licence. The licence is therefore valid from 17th January 1989 to 5th January 1990.

3. Certificate.

I, the undersigned, a person duly authorised for this purpose by the issuing authority, hereby certify the facts stated in paragraphs 1 and 2 and 4 and 5 of this Certificate.

Signature: [Signature]
17th January, 1989

Date and stamp:

RATINGS.

Aircraft Rating	Signature and stamp of Issuing Officer
<p>CLASSES of aeroplanes which may be included:</p> <p>Landplanes</p> <p>ULTRA LIGHT (all single-engined aeroplanes under 68.1kg (1,500lb.) maximum total weight authorised).</p> <p>GROUP "A" (all single-engined aeroplanes under 5,700kg (12,500lb.) maximum total weight authorised).</p> <p>GROUP "B" (all multi-engined aeroplanes under 5,700kg (12,500lb.) maximum total weight authorised).</p> <p>TYPE IN GROUP "C" (aeroplanes over 5,700kg (12,500lb.) m.t.w.a.).</p>	<p><i>[Signature]</i> 1-7-1980</p> <p><i>[Signature]</i> 1-7-1980.</p>

(XII) Ratings, continued)

Ratings	Signature and stamp of Issuing Officer
<p>Instrument Rating: (for validity of the privileges, see paragraph 8 of Certificate of Validity).</p> <p>Instructor's Rating: (valid until date shown in paragraph 4 of Certificate of Validity).</p> <p>Night Rating: (valid only when holder has in the last six months carried out five take-offs and landings by night).</p>	

XIV PRIVILEGES OF THE LICENCE.

The holder of this licence is authorised to operate radio-telephony apparatus on board any aircraft registered in Kenya in the capacity of a Flight Radio-Telephony Operator.

Experience

The holder of this licence has produced evidence of having performed satisfactorily the duties of a flight radio-telephony operator.

**I. GOVERNMENT OF KENYA.
CIVIL AVIATION AUTHORITY.**

**II. FLIGHT RADIO-TELEPHONY
OPERATOR'S LICENCE**

III. Number of Licence **YK-457-RL**.....

Particulars of the holder:—

IV. Name **Andrew Angus SIMPSON.**
in full.....

V. Address **P.O. Box 411,**
NAIVASHA. (KENYA).

VI. Nationality: **KENYAN**
Date of birth: **30th November, 1943.**
Place of birth: **NAIROBI (KENYA).**

The holder of this licence may at all times re-enter Kenya upon production of this document.

VII. Signature: *[Signature]*

D.C.A.(L) 14



EXPERIENCE RECORD of MUTISO, Professor Gideon-Cyrus M.

Nationality: Kenyan

Date of Birth: November 1942

Qualifications: B.A. (Political Science, Cum Laude), Parsons College, Fairfield, Iowa, USA, 1965

M.A. (Political Science), University of Kansas, Lawrence, Kansas, USA, 1966
Thesis: "The Use of Economic and Political Development as Ideology in Kenya, 1952-1963"

Ph.D. (Political Science), Syracuse University, New York, USA, 1968
Thesis: "Socio-Political Ideas in African Literature in English, 1945-1967"

Languages: English, Swahili, Kamba

Professional Experience:

1965	Department of Government, Parsons College, Fairfield, Iowa, USA Tutor
1966	Department of Political Science, University of Kansas, Lawrence, Kansas, USA Tutor
1967	Programme of East African Studies, Syracuse University, Syracuse, New York, USA Lecturer
1968 - 1969	Montclair State College, Montclair, New Jersey, USA Assistant Professor of African Politics
1968 - 1979	Associate Editor, "African Scholar", Washington DC, USA
1969	St John's University, Jamaica, New York, USA Adjunct Assistant Professor of African Politics
1969 - 1970	Rutgers University, New Brunswick, New Jersey, USA Assistant Professor

Experience Record of Mutiso, Professor Gideon-Cyrus M. (continued)

1970 - 1979	Department of Government, University of Nairobi, Kenya (1970-1972) Lecturer (1972-1976) Senior Lecturer (1973-1974) Deputy Director, Diplomacy Training Programme (1976-1979) Associate Professor
1970 - 1979	Associate Editor for East Africa, "Black Academy Review", Buffalo, New York, USA
1971 - 1978	Television Presenter, "Mambo Leo, Voice of Kenya"
1975 - 1979	Associate Editor, "African Review", Dar es Salaam, Tanzania
1975 - 1979	Deputy Editor, "Journal of East African Research and Development", Kenya
1979 - 1983	Assistant Managing Editor, "Daily Nation", Nairobi, Kenya
1983 - date	Mutiso Consultants Ltd, Nairobi, Kenya Founder and Managing Director Founded the company with a group of Kenyan professionals, adopting a policy of multidisciplinary approach to development activities As Managing Director, has guided the company to its present position of experience and expertise Projects completed bestride the development sectors of development policy planning, human resources development and training, arid and semi-arid lands (ASAL) development, agriculture and livestock development, forestry and agro-forestry, health and family planning, energy planning and water resources development Clients have included over 30 major international organizations and agencies, i.e. IBRD, USAID, UNDP, IFAD, FAO, IDRC, ADF, UNICEF, the governments of the Netherlands, Federal Republic of Germany and Finland and some 25 Kenyan clients.

EXPERIENCE RECORD of POYCK, Dr Leo J.

Nationality: Dutch

Date of Birth: 26 June 1944

Qualifications: M.A. (Urban and Regional Planning), Free University of Amsterdam, the Netherlands, 1971
Main subjects: urban and regional planning, economic and industrial geography, economics of developing countries

Ph.D. (Social Sciences), University of Nijmegen, the Netherlands, 1985

Languages: Dutch (native)
English, French, German, Kiswahili

Professional Experience:

1971 - 1979 Ministry of Foreign Affairs, Directorate General of International Cooperation, The Hague, the Netherlands

(1971-1977) Assigned as Physical Planning Officer to the Department of Urban and Rural Physical Planning, Ministry of Lands and Settlement, Nairobi, Kenya

Duties:

- preparation of a national physical development study
- formulation of objectives, and planning and implementation of strategies for human settlements
- contribution to preparation of economic development plans of 1974-1978 and 1979-1983, district development plans and integrated rural development programmes
- preparation of land use plans for urban and rural centres and the human settlement and land use pattern of rural settlement schemes
- preparation of feasibility studies and evaluation and monitoring of urban and rural development projects (i.a. low-cost housing, water and energy, transport and small-scale industrial development)
- formulation and evaluation of research programmes of Government bodies, international organizations and private agencies

Experience Record of Poyck, Dr Leo J. (continued)

Responsibilities included:

- overall management
- financial control
- personnel management
- preparation of annual workplan and budget
- performance monitoring

1988 - date

BMB Management Consulting for Development B.V.,
Tilburg, the Netherlands
Director East Africa

Activities include:

- acquisition of projects
- preparation of technical and financial proposals
- management of project preparation and implementation
- selection of candidates
- establishing contacts with donor agencies and international organizations (DGIS, EEC, IBRD, UNDP)

Publications:

"Criteria and Evaluation of Deliberate National and Regional Plans: Experience in Kenya" (contribution to a paper for the United Nations Conference on Human Settlements, HABITAT), Vancouver, 1976

"National Settlements Analysis and Policies, a Case Study of Kenya" (contribution to a paper for the United Nations Centre for Housing, Building and Planning), New York, 1977

Human Settlements in Kenya, a Strategy for Urban and Rural Development, Physical Planning Department, Nairobi, 1978

Projet de recherche dit sur la décentralisation, Dakar, 1979

Ph.D. Thesis: Spatial-Economic Development, Social Differentiation and Small-Scale Non-Agricultural Informal Activities in Kenya (published in Dutch with a summary in English), University of Nijmegen, 1985.

KASSIM O. FARAH, Ph.D.
(Range Scientist)

P.O. BOX 11862
NAIROBI, Kenya

University of Nairobi
Dept. of Range Management
P.O. BOX 29053
KABETE, Kenya

EDUCATION:

1. UNIVERSITY:

Ph.D (Range Science), Utah State University, Logan
Utah U.S.A. - January, 1987.

The degree programme covered ecological and socio-economic aspects of Range Resource utilization and conservation with emphasis on problems in developing countries. The ecological (Plant Ecology) part comprised both principles and applications. Areas covered included: Coevolutionary processes (competition, succession, energy and nutrient cycles), patterns and processes structuring plant communities, plant population ecology, vegetation ecology and analysis. These principles were applied to elucidate the structure and function of Tropical grazing land ecosystems.

The socio-economic aspects were covered in such courses as Range management in pastoral societies, cultural change and economic development, and project planning and implementation in developing countries.

Supporting fields of the Ph.D degree were plant ecophysiology and statistical/Research methods for environmental Biologists.

The Ph.D research investigated autecology, population dynamics, and grazing control of a range weed in Northern Utah, U.S.A.

M.Sc. (Range Management), University of Nairobi, Kenya
November, 1985.

Relations of two pasture grasses commonly used in high and medium potential areas of Kenya. Although this degree was awarded in November, 1985, the requirements were completed in March, 1983.

B.Sc. (Agric: Hons), University of Nairobi, Kenya, June, 1980.

Areas covered were: Agronomy, Crop Protection, Animal Production, Animal Health and Hygiene, Soil Science, Agric. Engineering, Agric. Economics, Rural Sociology plus basic sciences during the first year of study.

PROFESSIONAL EXPERIENCE

January 1987 - June 1988: Department of Range Management,
University of Nairobi, KENYA

Position : Lecturer

Areas of Emphasis : Range Ecology, Principles of Range
Management, Ecology of tropical grazing
lands.

June - December, 86 : Dept. of Range Science, Utah State
University.

Position : Graduate Research Assistant

Areas of Emphasis : Plant population ecology, vegetation
Manipulation by grazing.

Supervisors : Dr. Neil West; Dr. John Malechek;
Dr. Ben Norton.

January, 1983-June
1986 : Dept. of Range Science, Utah State
University.

Position : World Bank Fellow and Ph.D candidate

Areas of emphasis : Grazing control of Range weeds,
population dynamics of weedy species,
synecology.

Supervisors : Dr. Neil West, Dr. John Malechek,
Dr. Jack Evans.

Oct. 1980 - July
1982 : Dept of Range Management, University
of Nairobi.

Position : Graduate Research Assistant

Areas of emphasis : Plant water relations of range grasses.

Supervisors : Dr. Bob Ogwang:
: Dr. Theuri J. Njoka

June 1980 - Sept
1980 : Ministry of Agriculture, &pvernment
of Kenya.

Position : District Agricultural Officer,
Garissa District, KENYA.

Areas of
emphasis : General administration, Irrigation
farming along the Tana River Basin for
settled nomadic pastoralists.

Oct. 1977-June : B.Sc. (Agric.) Student, University of
1980 Nairobi, Kabete Campus.

Jan-Aug 1977 : Ministry of Education, Government of
Kenya

Position : Secondary School Teacher, Garissa
District.

Areas of
emphasis : Biology and Mathematics.

Jan-March 1975 : Ministry of Education, Government of
Kenya.

Position : Primary School Teacher, Garissa District.

Areas of
emphasis : Biology, Maths and Geography.

PROFESSIONAL AFFILIATIONS:

American society of Range Management, East African
Society of Range Management, and Ecological Society
of America.

PERSONAL DATA

Born in Wajir, Kenya 25th October, 1958
Married 1985.

PUBLICATIONS


1. Farah, K.O. 1982. A comparative study of plant-water relations in Chloris gayana (Kunth) and Setaria sphacelata (S & H). M.S. thesis, University of Nairobi.
2. Farah, K.O. 1987. Autecological and grazing control studies of dyers woad (Isatis tinctorial L.) on northern Utah Rangelands, Ph.D. dissertation, Utah University.
3. Farah, K.O. 1987. Agriculture, Livestock Production and Land-Use in North-Eastern Province of Kenya. Proceedings, Institute of African Studies, North-Eastern cultural show (June 1987).
4. Farah, K.O. and West, N.E. 1988. Autecology and Population biology of dyers woad (Isatis tinctorial L.) Weed science. 36: 186 - 193.
5. West, N.E. and Farah, K.O. Effects of sheep and simulated grazing on dyers woad. In press Journal of Range Management.

CURRENT RESEARCH

Response of Indigoferous spinosa to simulated camel browsing.

DATE: 12th JAN 1989..

RESUME

NAME: Theuri Jesse Njoka 

DATE OF BIRTH: 1946

NATIONALITY: Kenyan

QUALIFICATIONS: B.Sc., Agriculture - University of Nairobi, 1973.

M.Sc., Range Management, University of California, Berkeley, 1975.

Ph.D., Wildland Resource Science, University of California, Berkeley, 1979.

EXPERIENCE

1976-PRESENT: University of Nairobi.

Assistant Lecturer, Department of Animal Production, University of Nairobi, 1976-1979.

Lecturer, Department of Animal Production, University of Nairobi, 1980.

Lecturer, Department of Range Management, University of Nairobi, 1981-1985.

Lecturer, Department of Range Management, 1980-Present.

Senior Lecturer, Department of Range Management, 1986.

CONSULTANCIES:

1988: Consultant for S.I.D.A. "Integrated Environmental Conservation Project", Babati District, Tanzania.

1987: Consultant, "Environmental Impact Study", Noltareh Water Pipeline Project.

1986-87: Fulbright Scholar, Colorado State University - Topic: "Rangeland Resource Inventory Methods."

- 1985: Member of mid-term review team, Kitui ASAL Development Project for USAID, Nairobi.
Park East Consultant on Range Wildlife Conservation.
- 1984: Supervision of Student Ranch Practice in Laikipia, Machakos and Taita Taveta Districts.
Consultant for Park East Tour Company on Land Management problems on Wildlife Conservation in Rangelands: Arizona-Sonora Desert Museum Tour Group.
- 1983-84: Consultant for African Development and Economic Consultants (ADEC) on Rangeland Development in Turkana, West Pokot, Baringo and Samburu Districts.
- 1983: consultant for Louis Berger International, Inc. on Range/Livestock Development proposal for Kitui District.
- 1982: Evaluation of Machakos Co-operative Ranching Societies for National Council for Science and Technology.
- 1981-82: Consultant for International Livestock Center for Africa (ILCA) on Evaluation of Range Condition and Trends in Maasai Group Ranches.
- 1976-78: Ph.D., Research on the Group Ranch Development in Kajiado District, Kenya.
- 1975-76: Research Assistant, Botanical Gardens, University of California, Berkeley.
- 1973: Range Research Officer, Kiboko Range Research Station, Ministry of Agriculture.

RESPONSIBILITIES HELD:

Current Research Project sponsored by UNICEF on "Range Improvement Program for Baringo District - 1988.

Kenyan Delegate to I.G.A.D.D. Conference in Djibouti - 1988.

Kenyan Delegate to 14th Session of UNEP Governing Council - 1988.

Member, Scientific and Advisory Committee, Ministry of Environment and Natural Resources - 1988.

Acting Dean, Faculty of Agriculture, University of Nairobi - 1988-Present.

Kenyan Delegate 4th Biennial Meeting between I.L.C.A. and Leaders of Livestock Research Development and Training in Tropical Africa - 1987.

Member, Steering Committee "Range Management Handbook", Ministry of Livestock Development - 1987.

Secretary, East Africa Society for Range Management - 1982-1987.

Chairman, the Field Station Committee, Faculty of Agriculture, University of Nairobi - 1985.

Member of Council, Wildlife Clubs of Kenya - 1985.

Chairman, Department of Range Management, University of Nairobi - 1985-Present.

Council Member, EAWS - 1982-1984.

Council Member, Wildlife Clubs of Kenya - 1984.

Member of the Scientific and Technical Committee, East African Wildlife Society - 1983-Present.

Secretary, East African Range Management Society - 1983-Present.

Committee Member, Scientific and Technical Committee, East African Wildlife Society (EAWS) - 1982.

Vice-Chairman, Group Ranch Evaluation Committee: Ministry of Livestock Development - 1982.

Member, Sheep Committee - Agricultural Society of Kenya - 1982.

Department Representative: Postgraduate Studies Committee, University of Nairobi - 1981.

PUBLICATIONS:

The Future of Pastoral Nomadism - ULCA Seminars in African Studies, 1976.

The Rangelands and Wildlife Management in Kenya - published in the Wildlife Clubs of Kenya Magazine, 1976.

Ecological and Socio-cultural Trends of Kaputiei Group Ranches in Kenya - Ph.D. Thesis, UC, Berkeley.

Range Condition and Trend from Permanent Vegetation Transects, ILCA, 1982.

Range Trend in Kajiado Group Ranches - published in the Proceedings of the Workshop organized by ILCA in Addis Ababa, Ethiopia, 1983.

The population Trend of Small Ruminants in Kaputiei Group Ranches - A paper presented at the Seminar on Small Ruminants Project in Naivasha and later published in the proceedings in 1983.

The Operation of Kaputiei Group Ranches in Kajiado 1983 - Group Ranch Workshop at Kilimanjaro Hotel in Kajiado.

Progressive Report on the evaluation of Cooperative ranching societies in Machakos District, 1983. National Council for Science and Technology.

Range Management Development Section - in the proposal for Developing the Kerio Valley Districts (ADEC).

The Kitui Range/Livestock Development Plan, 1983. Ministry of Economic Planning - Louis Berger International, Inc.

The Management Status of Meru, Tsavo, Amboseli, Masai-Mara National Parks - published December, 1984 in the Swara Magazine, East African Wildlife Society.

Prospects of Group Ranch Development in Maasai land. 'Paper presented to the Maasai Inter-Church Development Committee in Ngong, January, 1985'.

Range Improvement for Wildlife and Livestock, April 1985 'Paper presented at the Wildlife/Livestock Interface Conference held at Taita Hills and accepted for publication in the East African Agriculture and Forestry Journal'.

University Range Management Education in Kenya - 'Paper presented at Winrock International Symposium at Egerton College, 1986.

TEACHING EXPERIENCE AT UNIVERSITY:

1. Introduction to Range Management
2. Methods of Range Inventory.
3. Range Improvement and Grazing Systems.
4. Range plants and their values.
5. Beef Management.
6. Conservation, Energy Resources and Ecology
7. Ranch Practice and Range Management Seminars.

EXPERIENCE RECORD of JACOB, Michael B.

Nationality: British

Date of Birth: 26 April 1926

Qualifications: Cambridge School Certificate, Prince of Wales
School, Kabete, Kenya, 1939-1944

MRCVS (Membership of Royal College of Veterinary
Surgeons), Royal Veterinary College, Edinburgh,
Scotland, 1948-1953

B.Sc. (Veterinary Science), Edinburgh University,
Scotland, 1948-1953

Postgraduate courses:

- Veterinary Refresher Course, Cattle Diseases,
Glasgow University
- Man Management & Human Relations Course,
National Agriculture Centre, Stoneleigh,
Warwickshire
- Grassland Management & Conservation Course,
Welsh College of Agriculture, Aberystwyth
- Training Method Course, Welsh College of
Agriculture, Aberystwyth

Languages: English (native)
Swahili, Luganda

Professional Experience:

1945 - 1948 Military Service

1953 - 1956 H.M. Colonial Veterinary Services, Kabete, Kenya
Veterinary Officer, Central Nyanza District

- responsible for disease control, veterinary
administration and veterinary extension work to
small-scale and government projects
- in charge of government cattle breeding centres,
the purpose of which was to provide improved
cattle to local farmers
- member of Central Nyanza District
administration/rural development team
- development of new projects in livestock sectors

1956 - 1970 Kireka Estates Ltd., Kitale, Kenya
Managing Director of the Tropical Farming Company/
Livestock Consultant

Experience Record of Jacob, M.B. (continued)

Management and supervision of large livestock project and all technical and commercial aspects with direct responsibility for:

- modern dairy production unit plus followers
- intensive beef production unit and meat processing facilities
- large pig unit (bacon production)
- extensive grasslands and permanent pasture
- fodder conservation, foodstuff production and milling operations for livestock feeds

Company operations, financial administrative control, corporate planning, investment analyses and decisions, personnel selection, training

1970 - 1971

Department of Primary Industries, Melbourne, Australia
Manager Veterinary Services, Meat and Livestock Products Division

- management of State meat inspection service
- supervision of cleanliness, hygiene and meat inspection of large-scale meat factories

1971 - 1972

Ascot Veterinary Hospital, Perth, Western Australia
Senior Veterinary Surgeon

Main work was with large-scale beef cattle ranching projects in the north; management, administration and organization of technical services for commercial livestock projects

1972 - 1977

E.W.P. Farms Ltd., Haverfordwest, Dyfed, Wales
General Manager

- management livestock and grassland production
- direct supervision of farm managers and all activities relating to milk production and livestock operations
- supervision of estate farm commercial activities; dairy, arable farming 1,500 cows, 2,000 acres, 9 separate farms over wide radius
- responsible for animal health, veterinary work, artificial insemination and breeding programmes
- financial and administrative supervision of company's activities, production programme, investments, marketing and long-term strategy
- consultant to controlling investment of company on new livestock production projects

Experience Record of Jacob, M.B. (continued)

1977 - date

BMB, Management Consulting for Development,
Tilburg, the Netherlands
Senior Livestock Consultant for Rural Projects

Assignments:

(1977) Evaluation of livestock production, dairy
operations project, Saudi Arabia

(1978-1979) Project Leader in Assistance to the
Animal Production Public Corporation (APPC), Sudan
(Netherlands Government financed)

Aim of the assignment was to develop a package of
management tools enabling APPC to improve and
extend its activities and performance in
livestock, poultry and fisheries production.

Tasks included:

- study of existing projects and recommendations
for their improvement using actual case studies
to train counterparts
- economic evaluation of new projects and
introduction of methodology for appraisal of
investment project proposals
- analysis of existing marketing patterns and
design of short- and long-term sales and
marketing plans for APPC products
- data collection and interpretation of existing
sales and distribution patterns
- advice on management and organization systems
for existing and new projects and for APPC
headquarters
- design and implementation of management
information systems for costing, budgeting and
data filing

(1980-date) Livestock Industries Cattle Marketing
Advisor in project for Services to Livestock
Owners in Communal Areas, Botswana (EDF financed)
Aim of the project is to provide the small farmers
in the communal areas with the basic services
essential to livestock development, i.e. improved
input/supply system, improved marketing system,
improved disease control measures. These farmer
support services also include an extension network
and a pilot/demonstration programme.

Specific duties included:

- improvement of animal quality and regularity of
supply to the abattoirs through the
establishment and control of cooperative
livestock holding grounds
- development of a livestock collection and
computerized record system

Experience Record of Jacob, M.B. (continued)

- improvement in speed and efficiency of payments to the cattle owners
- advice to the Department of Cooperative Development and the Botswana Cooperative Union on cooperative livestock organization and marketing
- assistance in implementation and supervision of new marketing methods and management systems
- training of counterpart staff.

DAVID KIMENYE

Address: P.O. Box 14333,
NAIROBI

Date of Birth: 1944

Marital Status: Married, three children

Education: B.Sc. Agriculture. Makerere College (UEA) 1970.
M.Sc. Animal Breeding. University of Nairobi
1973.
Post Graduate Diploma, Animal Breeding.
Institute of Animal Genetics, University
of Edinburgh, 1973.
Ph.D. Animal Production, University of Nairobi,
1978.

Teaching
Experience:

1. Assistant Lecturer, Department of Animal
Production, University of Nairobi, 1974.
2. Lecturer, Department of Animal Production,
University of Nairobi, 1975-1982.
3. Senior Lecturer, Department of Animal
Production.

Subject Taught:

1. Animal Breeding and Genetics - Undergraduate
and Graduate.

Working
Experience:

1. Agriculture Officer, GoK, 1970-1974.
2. Lecturer, University of Nairobi, 1974-1985.
3. Consultant Livestock Ecologist, UNESCO/KALRES
1985-1987.

Consultancies:

1. Genetic and non-genetic influence on
cattle milk yields. Institute of Animal
Genetics and Breeding. The Agricultural
University of Norway, As. 1977.
2. Report of the National Council for Science
and Technology (Ed. S.W. Muturi) Animal
Production at the Coast of Kenya, 1980.
3. Animal Production Extension to Small Scale
Farmers. Ministry of Livestock Development,
1983 to date.

4. Generalized breed descriptors for world cattle. In FAO Breed Concepts. Edited by D. Thornton, Rome, 1984.
5. Livestock Development in the Kerio Valley Basin of Kenya. Kerio Valley Development Authority, 1983.
6. Report on the Co-operative Production Credit Scheme. Done jointly with BER for SIDA, NORAD and DANIDA, 1984.
7. Study on the production and marketing of Women's Groups products in Kenya. Done jointly with BER for SIDA, 1985.
8. Study on the organization of Women's Groups in Kenya. Done jointly with BER for NORAD, 1985.
9. Livestock production in Marsabit District. A series of 3 papers covering camels, goats and sheep, written, presented to and accepted by UNESCO as fulfilment of my two year consultation with them.

Publications:

Theses:

1. Comparison of Ayrshire and Sahiwal crossbred cows with high grade Ayrshire on Kilifi farm Coast Province of Kenya. M.Sc. Thesis, University of Nairobi, 1973.
2. A genetic study of the Kenya Sahiwal cattle. Ph.D. Thesis, University of Nairobi, 1978.

Symposium/

Conference Papers:

1. Kimenye, D. (1975). The Choice of Dairy Breeds for the Different Environment of Kenya. Proceedings of the Animal Production Society of Kenya 1975. 8: 8-10. Animal Breed. Abstr. 44: 3551.
2. Kimenye, D. and Mwandotto, B. (1979). Genetic Aspects of Increasing Milk Production in Kenya. Paper presented to the Animal Production Society of Kenya 7th December, 1979, ILRAD, Nairobi.

3. Richards, C.I., Carles, A.B. and Kimenye, D. (1976). Should Agriculture and Veterinary Students have a Common Course in Animal Production? Paper presented to the 7th Annual East African Animal Science Teachers Conference, University of Nairobi, June 1976.
4. Kimenye, D. Crossbreeding Between Sahiwal and European Breeds in Kenya. Paper presented at the 19th International Dairy Congress Karnal, India 2-6 December 1974.
5. Kimenye, D. Review of Breeding Programmes in East Africa. Paper presented to the FAO Expert Consultation on Dairy Cattle Breeding in the Humid Tropics. 12-17 February 1979, Hissar - India.
6. Kimenye, D. Breeding Programme and Livestock Production Systems in Kenya. Paper presented at the first committee on Animal Genetics Resources and Conservation for the Region of Africa 13-15 April 1981, Nairobi, Kenya.
7. Kimenye, D. Boran and Sahiwal cattle in Kenya. In FAO/OAU/UNEP Livestock Production in Africa. Paper presented at the Second Committee on Animal Genetics Resources and Conservation for the Region of Africa, November 1983, Bulawayo, Zimbabwe.
8. Kimenye, D. Livestock Breeds for Drought Prone Areas in Africa. Paper presented at the FAO Workshop on Strategies to Combat drought in Drought-prone African Countries, November 1985, Khartoum.
9. Kimenye, D. (1986). Drought Management for Arid Pastoral Areas. Paper presented to the Media Policy Makers' Workshop. Training on environment, KENGO, Kabarnet, Kenya.

Published Papers: 1. Kimenye, D. and Russell, W.S. (1975). Comparison of Ayrshire and Sahiwal Cows with high grade Ayrshire in Kenya. E. Afric. Agri. For. J. 40: 416-421.

2. Kimenye, D. (1978). Relative Influence of Age and Body Weight at First Calving on Milk Production of Kenya Sahiwal Cattle. African Journal of Agricultural Sciences 5: 29-33.
3. Kimenye, D. (1978). Milk Production of Ayrshire and its Crossbreed with Sahiwal at Machakos and Ngong Veterinary Farms, Kenya. Anim. Breed. Abstr. 47:5935.
4. Kimenye, D. (1979). Influence of Calving Periods on Kenya Sahiwal Milk Yields. Egerton College Agric. Bull. 3: 44-46.
5. Kimenye, D. (1979). Milk Production of Friesian and Boran Heifers in Kenya. Egerton College Agric. Bull. 3: 44-46.
6. Kimenye, D. (1980). Genetic Improvement of Sahiwal Milk Yields. Kenya Journal of Science and Technology Series B. L: 47-44.
7. Kimenye, D. (1980). Influence of Age on Kenya Sahiwal Milk Yields. Kenya Journal of Science and Technology Series, B.L. 67-70.
8. Kimenye, D. (1981). Production Traits of Kenya Sahiwal Cattle. Bulletin of Animal Health and Production in Africa. 29(2): 121-124.
9. Kimenye, D. (1980). Influence of Seasons on Milk Yields of Tropical Cattle. Egerton College Bulletin 5: 20-25.

EXPERIENCE RECORD of CLARKE, Victor J.

Nationality: British

Date of Birth: 15 August 1945

Education: B.Sc. (Hons.) Agriculture, specializing in Animal Production, University of Reading, UK, 1964-1967

Diploma in Tropical Agriculture, University of the West Indies, Trinidad, 1967-1968

Ph.D.: "The Effects of Ground Roughage in Ruminant Diets", University of Nottingham, UK, 1972-1974

Short courses in i.a. photointerpretation, statistics in agriculture, use of radio isotopes in research

Languages: English (native)
Spanish, French

Professional Experience:

1968 - 1971 Government of the Gambia, Department of Agriculture
Scientific Officer (Animal Husbandry)

Duties involved: policy formulation and report preparation; financial control; livestock aspects of development planning; formulation and execution of research programmes in animal husbandry and pasture agronomy, including work on animal nutrition, breeding, management, and carcass and forage evaluation. Detailed studies of indigenous livestock, including range management, production and reproductive potentials. Theoretical and practical training of field staff; organization of courses for trainee extension personnel

1972 - 1974 University of Nottingham, School of Agriculture and Horticulture
Demonstrator and Lecturer in Animal Production

1974 - 1975 Government of the Dominican Republic
Animal Husbandry Advisor

Study of the compound feeds industry, and of the government feedstuffs quality control.
Investigation of national livestock industry, especially dairying, and recommendations for its improvement

Experience Record of Clarke, V.J. (continued)

Practical demonstration of economic improvements to increase output and efficiency, particularly of milk and pigmeat production. Demonstration of practical animal breeding and selection using adequate records, benefits of parasite control, pasture management, animal health control, hygiene and management, and mineral nutrition. Preparation of extension literature upon some of the above subjects

1976 - 1978 Central American School of Animal Husbandry, Costa Rica
Head of Beef Production

Investigation, with study visits, of higher agricultural education in Central American countries. Planning, preparation and presentation of short courses in livestock production. Evaluation of economic beef production systems. Production and rearing of small stock. Formulation of feedstuffs from locally available ingredients. Study of practical mineral nutrition and mineral supplement formulation

1978 - date Independent Agricultural Consultant

(1978) Nigeria - Report on livestock aspects of the Kano River Project Phase II. Appraisal of current and potential livestock production with reference to the economic influence of developments in the area on the national economy

(1978-1979) Saudi Arabia - Feasibility study for a large dairy unit, with detailed evaluation of economic and technical validity of the proposed project for presentation to government ministries and Saudi funding agencies

(1979) The Sudan - Feasibility study for a modern 500-cow dairy unit

Research study on the use of protected fats in ruminant feeding

(1979-1980) Somalia - Livestock Expert in BMB study of present and potential supply of milk to Mogadishu, and plans for future dairy farming expansion

(1980) Nigeria - Supervision Mission: Visits to World Bank livestock projects in Nigeria

Experience Record of Clarke, V.J. (continued)

- Somalia - Assistance to study problems of animal husbandry concerned with the resettlement of nomadic pastoralist refugees (Oxfam)
- The Sudan - Dairy project appraisal in Khartoum
Emphasis on milk production systems and processing operations (BMB)
- (1981) Papua New Guinea - Livestock Economist for the Department of Primary Industry (European Association for Cooperation, Brussels)
- Sudan - Identification studies of livestock finishing project for Arab Authority for Agricultural and Industrial Development. Report preparation with team from FAO, Rome
- Kenya - Re-identification of livestock aspects of Integrated Rural Development Project for Kenya Government and IFAD
- UK - Desk study of animal production and livestock product economics to determine viable animal production and animal industry projects in Egypt
- (1981-1982) Kenya - Project preparation of livestock components of Integrated Rural Development Project, Coast Province. Study of dairy and meat production systems and their location, dairy and meat processing, quality control and marketing of dairy products in Coast Province
- (1982) Sudan - Training course in animal production with special emphasis on economic methods of animal production for adoption on dairy farms and meat production projects. Proposals for an ongoing livestock extension programme with staff of the Animal Production Public Corporation (BMB)
- (1983) Kenya - Preparation mission on sheep and goat development project, including evaluation of national production and productivity. Study of internal and export marketing potential, and livestock breeds and breeding (FAO, Rome)
- Syria - Evaluation of livestock, research and extension programmes, particularly for small ruminants (FAO, Rome)

Experience Record of Clarke, V.J. (continued)

- Somalia - Mid-term review of livestock aspects of the Bay Region development project
- West Indies - Evaluation of livestock population and nutritional regimes to determine economic systems for calf rearing and the production of beef and breeding animals
- (1984) Sudan - Technical and economic review for potential investors, of a large dairy and poultry project near Khartoum
- Pakistan - Updating of the Livestock Sector Survey, with special reference to livestock resources, feed resources, livestock production, prices, costs and marketing (FAO/TCP project)
- Zimbabwe - Preparation report of livestock production aspects of the Second Resettlement Project for African Development Bank funding, with special emphasis on the role of animal draught power (FAO)
- Honduras - General identification mission to evaluate investment potential in the livestock industry
- (1985) Ethiopia - Preparation report of livestock aspects of the Peasant Association Development Project for the Sidamo and Gamo-Gofa regions with special reference to rinderpest vaccination (FAO)
- Zimbabwe - Preparation report of livestock and wildlife production components and their economics for the Mid Zambesi Valley Rural Development Project, with special reference to wildlife economics (FAO)
- Zambia and Zimbabwe - Study of tsetse control programmes and their influence on land-use patterns in the Zambesi Valley. Investigation of the requirements for land-use planning with special reference to the economics of wildlife and livestock systems in the valley (FAO)
- (1986) Mali - Presentation to the African Forestry Commission Working Party on Wildlife Management and National Parks of paper entitled: The Comparative Economics of African Wildlife and Extensive Cattle Production (FAO)

Experience Record of Clarke, V.J. (continued)

- (1986) Sri Lanka - Animal Nutrition Specialist in the Second Dairy Development Project, executed by BMB, Management Consulting for Development, the Netherlands. Advice on possible sources and methods of utilization of ruminant feeds. Attendance of the conferences/workshops
- Thailand - Preparation and presentation of lecture course on animal production systems to international students reading M.Sc. Agricultural Systems Course at the Asian Institute of Technology, Bangkok (FAO)
- (1987) Pakistan - Assistance in preparation of draft project document PAK/86/004 for the proposed follow-up of a livestock feed development and technology centre (FAO)
- Pakistan - Terminal evaluation mission, Pakistan Coordinated National Programme for Livestock Feed Resources Nutrition (FAO)
- (1987-date) Zimbabwe - Agricultural Economist/Team Leader, Omay Land-Use Study
- Publications: The Use of Low-Quality Forage in Ruminant Diets (1974), Conference on Animal Feeds of Tropical and Sub-Tropical Origin, T.P.I., London
- Supplementation for Beef Cattle and its Effects on Fertility (1977), 6th Symposium on Animal Health and Nutrition in Central America and Panama, Pfizer, Costa Rica (Spanish)
- Dairy Cattle Nutrition in the Tropics (1977), 6th Symposium Pfizer, Costa Rica (Spanish).

DATE: 12th JAN 1989

RESUME

NAME: Christopher Ng'arua Karue *McLaine*
DATE OF BIRTH: 1940 *12/1/89*
NATIONALITY: Kenyan
QUALIFICATIONS: B.Sc. (Agric), Makerere University, 1965
M.Sc., Rutgers University, New Brunswick,
New Jersey, 1968.
Ph.D., Rutgers University, New Brunswick,
New Jersey, 1971.

CONSULTANCIES:

1. Member of the Kenyan Government/ODA evaluation mission on the ODA supported grassland research in Kenya. The mission was to evaluate the extent and success of the Grassland/Livestock Research and Improvement Project that had been running for 5 years. I was the Secretary of the Mission, 1975.
2. Chairman and Member of a Kenya Government Inter-ministerial Working Party (Technical) to study the problems facing Kenya Cooperative Creameries and to make recommendations to Kenya Government on how the problems can be contained, 1978.
3. Chairman of the team to assess and evaluate the impact of UNDP assisted projects in Kenya up to 1978 in Agriculture and agricultural education, 1978.
4. Member of a team of four appointed by United Nations University to evaluate the status of Food and Nutrition problems in Africa and make recommendations, 1979.
5. Consultant to CIRDAFRICA through FAO on the Rural Development Projects, their implementation and successes in Eastern and Southern Africa - Tanzania, Zambia, Lesotho, Swaziland, 1983.

6. Consultant to CIRDAFRICA through FAO on the Rural Development Projects, their Implementation and Successes in Uganda, Tanzania and Mozambique, 1985.
7. Consultant to IFAD on the evaluation of the implementation of projects on Arid Zone Programme of the ILCA in Mali, Niger, and Ethiopia - Member of the International Team, 1985.
8. FAO Consultant on the Small-Scale Dairy Development in Southern Sudan, 1986.
9. ILCA Visiting Scientist to Small Ruminant Group on the Camel Research status in Africa, 1986.

EXPERIENCE:

- 1965-1974:
(RESEARCH) Research Scientist - upto Principal Research Officer and Head of Animal Production Division Research at East African Agriculture and Forestry Research Organisation.
- 1975-PRESENT: Senior Lecturer, Department of Animal Production, 1975.
- Associate Professor, University of Nairobi, 1976 upto 1980.
- Professor, Department of Range Management, 1980 upto the present time.
- Director, University Board of Postgraduate Studies since 1986.

ACADEMIC DUTIES:

- 1975-79: Lecturing, Department of Animal Production, University of Nairobi.
- 1980-PRESENT: Lecturing, Department of Range Management, University of Nairobi.
- 1975-PRESENT: Supervision of postgraduate students since 1975. 3 Ph.D., 6 masters. In several Boards of Examiners both for Ph.D. and Masters for Faculties of Agriculture, Veterinary and Science.

ADMINISTRATIVE DUTIES:

- 1975-77: Chairman, Department of Animal Production.
- 1977-81: Dean, Faculty of Agriculture

- 1980-85: Chairman, Department of Range Management.
- 1986: Director of Postgraduate Studies of University of Nairobi.
- SINCE 1975: Member of University Senate and various Senate Committees.
- 1980-83: Member of University of Nairobi Council.

PUBLICATIONS:

1. Karue, C.N., J.L. Evans and J.G. Welch, 1970, Metabolism of Urea Nitrogen and Adaptation Response Trends in the Growing Weather and Steer, 1970. E.A. Agric. For. Journal: 36, 88-93.
2. Karue, C.N., J.L. Evans and A.D. Tillman, 1972, Metabolism of Dietary Urea by Bos indicus (Boran) and Bos taurus (Hereford) Steers, 1972, E.A. Agric. & For. Journal: 38, 94-101.
3. Karue, C.N., J.L. Evans and A.D. Tillman, 1972, Metabolism of Nitrogen in Borans and in Hereford x Boran Crossbred Steers, 1972. E.A. Animal Science 35, 1025-1030.
4. Karue, C.N., J.L. Evans and A.D. Tillman, 1973, Voluntary intake of Dry intake of Dry Matter by African Zebu Cattle Quantity of Feed and the Reference Base, 1973. J. Animal Science 36, 1181-1185.
5. Karue, C.N., J.L. Evans and A.D. Tillman, 1973, Voluntary intake of dry matter by African Zebu Cattle Factors influencing dry matter intake, 1973 E.A. Agric. & For. J. 38: 352-360.
6. Karue, C.N., 1977. The Protein and Energy Requirements of the E.A. Boran Cattle 1977. E.A. Agric. & For. J. 42:322.
7. Karue, C.N.* Kayongo-Male, H. and Mutiga, E.R. (1978). The Effects of Supplementation on the Growth of Dairy Heifers Grazed on Medium Quality Pasture Under E.African Conditions. E.A. Agric. For. J., 42(4):80.
8. Karue, C.N.* Kayongo-Male, H. and Mutiga, E.R. (1978). The Effects of Supplementation on the Fertility of Dairy Heifers Grazed on Medium Quality Pasture Under East African Conditions.

* Co-author

9. Karue, C.N.* Kayongo-Male, H. and Okwaro, G.A. (1979). The Effect of Variety and Location on the Nutritive Value of Nine Sorghum Varieties Grown Under Kenyan Conditions. E. Afr. Agric. For. J. 43:186.
10. Karue, C.N.* Kayongo-Male, H. and Abate, A. (1979) Dry Matter, Protein, Energy and Fibre Intake by Dairy Heifers Grazing Medium Quality Pasture as a Basis for Supplementation. Anim. Feed. Sci. Tech.
11. Karue, C.N.* Okwaro, G.A., Kayongo-Male, H. (1979). Influence of Stage of Maturity at Harvest on Chemical Composition and in Vitro True Dry Matter Digestibility of High Grain Sorghum Variety "El291" and Forage Sorghum Variety "E6250". E.A. Agric. For. J. 43(3): 185.
12. Karue, C.N. 1975. The Nutritive Value of Herbage in Semi-Arid Lands of E. Africa.
 1. Chemical Composition. E.A. Agric. & For. J., 40:89.
13. Karue, C.N. 1975. The Nutritive Value of Herbage in Semi-Arid Lands of East Africa.
 2. Seasonal Influence on the Nutritive Value of Themeda triandra 40:342.
14. Karue, C.N. 1975. Intake and Digestibility of Themeda triandra hay and Boran and Hereford Steers. E.A. Agric. & For. J. 41: 35-41.
15. Karue, C.N. 1968. The nutritive Value of Poor Hay Supplemented with Urea to Sheep and Steers. M.Sc. Thesis.
16. Karue, C.N. 1971. Metabolism of Nitrogen, Voluntary Intake and Nutrient Requirements and Digestibility by the East African Zebu - The Boran. Ph.D. Thesis.
17. Evaluation of Research in Kenya Grasslands. 1975 (Secretary of the Mission).
18. The Kenya Cooperative Creameries Technical Working Party - 1978. Chairman of the Committee.
19. Evaluation of UNDP assisted Agricultural Education Projects in Kenya, 1978. Chairman of the Team.
20. United Nations University Mission on Food and Nutrition Problems in Eastern Africa, Member, 1979.
21. Karue, C.N. 1979. Food Production in Africa in Relation to World Hunger Programme. UNU Conference on World Hunger Programme, Nairobi, 1979.

* Co-author

22. Karue, C.N. 1980. The Role of Sunflower by Products as Animal Feed. AASA/ILCA Workshop on Agricultural Forestry and Fisheries Waste Utilization Doula, No. 17-21, 1980.
23. Karue, C.N. 1982. Livestock Production Trends in Kenya Meat Production.
24. Karue, C.N. 1983. Report on Consultants Visit to Southern Parts of Africa.
25. Karue, C.N. 1986. Consultant Report to FAO on Small-Scale Dairy Development in Southern Sudan, 1986.
26. Visiting Scientist International Livestock Centre for Africa with Small Ruminant and Camel Research Group, 1986.

PROFESSIONAL ASSOCIATIONS

1. Member of American Animal Sciences Society, 1966-1970.
2. Member of Animal Production Society of Kenya from 1969 to present.
3. Secretary APSK 1973
4. Chairman APSK, 1975
5. Committee member of Kenya Government Advisory Committees on Dairy Research, Beef Cattle Research, Pasture Research, Sheep and Goat Research, Range management Research on Animal Feeds, 1970-1975.
6. Member of Boards of Egerton College, 1977-1981.
7. Chairman, Board of Egerton College, 1982-1984.
8. Member of Editorial Committee for E.A. Agric. & For. Journal, 1970-1975.
9. Council Member of National Council for Science and Technology.
10. Council Member of Agricultural Society of Kenya.
11. Chairman, Livestock Committee of Nairobi International Show, 1976-1986.
12. Council Member of University of Nairobi Council, 1980-83.
13. Director, Board of Postgraduate Studies, (Current) since 1986.
14. Chairman, (1988-1990), Association of Faculties of Agriculture in Africa.

15. Treasurer (1988-1990), Network of Deans of Graduate Schools in Eastern and Southern Africa Universities.
16. Chairman, National Research Council of N.C.S.T.

INVOLVEMENT IN DEVELOPMENT PROJECTS

I have closely been involved with initiation of collaborative research between Ministry of Agriculture and Faculty of Agriculture at Kabete when I was Dean.

I was also closely associated with the development of the Faculty of Agriculture during my term as Dean of the Faculty with the expansion of teaching facilities, expansion of postgraduate programmes, the establishment of B.Sc. Forestry and B.Sc. Range Management, the establishment of Kibwezi Dry-land Field Station and the rapid staff development that has occurred in the Faculty.

During my term as Chairman of the Department of Range Management, I was responsible to the Vice-Chancellor for the implementation of the current B.Sc. programme.

RESEARCH EXPERIENCE:

1. Studies on feed intake by Zebu (Boran) Cattle.
2. Studies of feed intake by sheep (Corriedale).
3. Studies of Nutritive value of range herbage in Ecological Zone IV.
4. Studies on the performance (growth and reproduction) of Zebu and Zebu-exotic crosses in semi-arid areas.
5. Studies on the performance (growth and milk production) of dairy calves and dairy cattle under zero-grazing while fed on napier grass only.
6. Studies on the performance of camels (reproduction, growth and milk production) in semi-arid areas of Kenya (current).

R E S U M E

NAME: George M. Ruigu
PROFESSION: Agricultural Economist
PERSONAL HISTORY:
Place of Birth: Gititha village, Githunguri Division,
Kiambu District, Kenya
Date of Birth: September 5, 1945
Sex: Male
Marital Status: Married, 3 children
Address: Institute for Development Studies
University of Nairobi
P.O. Box 30197
NAIROBI, KENYA

EDUCATION BACKGROUND:

University:

1978

- Obtained Ph.D - Department of Agricultural Economics, Michigan State University, East Lansing, Michigan.

Major Areas: Economic Theory, General Agricultural Economics, Marketing, International Agricultural Development.

Minor Areas: Statistics and Price Analysis.

1975

- M.A. (Economics) - Department of Economics, Michigan State University, East Lansing, Michigan, U.S.A.

1971

- B.Sc. (Agric.) Crop Option, First Class Honours, Makerere University, Kampala, Uganda.

Secondary:

1966 - 67

- Thika High School, Cambridge School Certificate; Advanced Level: HSC (Science).

1962 - 65

- Thika High School, Cambridge School Certificate; (O Level), Division 1.

PROFESSIONAL HISTORY:

- Oct. 1980 - Present - Senior Research Fellow, Institute for Development Studies (IDS), University of Nairobi.
- 14 July - 8th Aug. 1986 - Co-director, Agricultural Sector Planning and Management Course, Nairobi. Participants were Senior Planners in the Ministries of Agriculture, Finance, Planning and Parastatals from 11 African countries.
- Feb.15-March 21, 1983)
May 5-23, 1984)
Oct. 20-Nov. 5, 1984)
April 30-31st May '86)
16 Oct.-5 Dec, 1986) - Acting Director, Institute for Development Studies (IDS), University of Nairobi.
- March - Nov., 1983 - Member of the National Task to prepare and produce Kenya's 20th Anniversary Official Handbook, 20th Anniversary Celebrations Directorate, Office of the President, Nairobi. I contributed 5 chapters of the Book viz, chapter 4 on National Resources, 5 on the National Economy, 6 on Agriculture, 7 on Commerce and Industry, and 8 on Transport, Communications and Energy.
- Aug. 1978 - Sept. 1980 - Research Fellow, IDS, University of Nairobi.
- Aug. 1972 - Dec. 1975 - Junior Research Fellow, IDS, University of Nairobi.

UNIVERSITY TEACHING:

- Aug. 1978 - Present
- a) Undergraduate; has taught Economic students in the Department of Economics, Faculty of Arts and those of the Faculty of Commerce. Also lectures in Agricultural Economics in the Department of Economics. A full course.
- b) Postgraduate; has taught both in the Departments of Economics and Agricultural Economics, Faculty of Agriculture. Topics involve Agricultural Marketing and Development Economics. Also supervises M.A. and Ph.D thesis.
- Fall 1981 - Present - Co-ordinator of the Academic Programme of the Kenya Experiment which is a constituent part of the experiment in International Living of the school for International Training, University of Vermont, USA. Lectures to American students in the area of Agricultural Economics and Rural Development.

OTHER ACTIVITIES:

- Member - Interministerial Food Co-ordinating Committee, Food & Nutrition Planning Unit, Ministry of Planning and National Development.
- Member - Steering Committee Food & Nutrition Survey Programme (FNSP) a joint programme between the Ministry of Planning and National Development and the African Studies Centre, Leiden, Netherlands.
- Member - Executive Committee of IDS.
- Member - Bookshop & Library Committee of the University of Nairobi.
- Aug. 1978 - Seminar Co-ordinator - Institute for Development Studies.
- July 1985 - Organizes the review and production of the Institute's Working Papers and Occasional Papers. Also arranges the schedule of the Institute's seminars.

MEMBERSHIP OF PROFESSIONAL SOCIETIES:

- Member of Eastern African Agricultural Economics.
- American Agricultural Economics Association and
- International Association of Agricultural Economist.

PUBLICATIONS:

- Gwyer and Ruigu, "The Agricultural Employment Situations in Selected Areas of Kenya: Some Preliminary Findings", In Occasional Paper No.4, IDS, University of Nairobi, 1971.
- Chege, F. and Ruigu, G., "Accelerating the Inflow of New Ideas to Rural People". Paper presented to East African Social Science Conference, Kampala, Makerere University, December, 1971.
- Roling, N., Ascroft, J., and Ruigu, G., "Social Research Production, Dissemination and Implementation in Kenya: An Exploratory Study". Paper prepared for the Workshop on the Co-ordination of the Production, dissemination and Utilisation of Social Science Research Findings, January 20-22, 1972, University of Nairobi.
- Ruigu, G. with Joe Ascroft, "Land Policy and the Small Scale Farmer". Working Paper No.35, March 1972, Institute for Development Studies, University of Nairobi.
- Ascroft, J., Ruigu et al., Does Extension Create Poverty in Kenya? East African Journal Vol. 9.3 (March 1972).
- Ruigu, G.M. "Some Aspects of Employment on Small-Holder Farms in Selected Areas of Kenya". In Amann, V. (ed.), Agricultural Policy Issues in East Africa, Makerere University, 1973.

- Hopcraft, P. and Ruigu, G., "Dairy Marketing and Pricing in Kenya: Are milk shortages the consequences of drought or pricing policies". Working Paper No. 261, Institute for Development Studies, University of Nairobi, March 1976.
- Ruigu, G.M., "Small-Holder Milk Production and Marketing: Opportunities and Problems, Working Paper No. 286, October 1976.
- Hopcraft and Ruigu: "Dairy Marketing and Pricing in Kenya" Discussion Paper No. 237, Institute for Development Studies, 1976.
- Ruigu, G.M., "An Economic Analysis of the Kenya Milk Subsystem", Unpublished Dissertation for the degree of Ph.D., Department of Agricultural Economics, Michigan State University, 1978.
- Migot-Adholla and Ruigu, George, "The Development of Coffee Production in Kenya", 1978 (mimeo).
- Ruigu, G.M., "Marketing and Pricing Policies in Kenya Dairy Industry", in Mukui, J.T. (ed.) Pricing and Marketing Controls, Occasional Paper No. 32, Institute for Development Studies, University of Nairobi.
- _____, "Agricultural Credit Institutions and Rural Development", in Proceedings Report, IAAS Congress in Nairobi, Kenya, 1979.
- _____, "Agrarian Reform and Rural Development Policies and Strategies for 1980's". Background Paper to the World Conference on Agrarian Reform and Rural Development, Rome, July 12-20, 1979.
- _____, An Economic Analysis of the Kenya Milk Subsystem. International Dissertation Abstracts, 1979.
- Ruigu, G.M. and P.O. Alila, Co-operative Farming in Nandi, South Nyanza and Nyandarua: FISS Baseline Studies Report No.13, Research and Evaluation Unit, Development Planning Division, Ministry of Co-operative Development, Nairobi, 1981.
- Ruigu, G.M., "Marketing and Pricing Policies Implications for Food Policy Research", in Proceedings of the Workshop on Food and Policy Research Priorities, Nairobi, June 14-18, 1982, National Council for Science and Technology, NCST 10.
- Muturi, S.N., Mwangi W.M., Mwaura, N.K., Ruigu, G. and Mwangi, F.J., Resource Allocation in Agriculture Research in Kenya, Part 1 and 2, Report prepared for the National Council for Science and Technology, September, 1982.

- Alila, P.O. and Ruigu, G.M., Evaluation of the Kenya Freedom from Hunger Council (KFFHC) for National Development Projects Programme, 1975-1982, Report to the KFFHC/FAO, October, 1982.
- Ruigu, G.M. and Chege, F.E., Final Report on the Topical Study on the Impact of Rural Access to Roads on Agricultural and Livestock Development. Submitted to the Ministry of Transport and Communications (January 1983).
- Tumbo-Oeri, A., Ruigu, G.M., and Michieka, R.W., A Market Survey of Agro-Chemicals in Kenya. Report submitted to the Ministry of Industry, Kenya, Industrial Promotion Department, March, 1983.
- Mwangi, W.M. and Ruigu, G.M., Agricultural and Food Policy Issues in Kenya: Research Agenda, ACIAR (Australia Centre for Agricultural Research) Proceedings of the East Africa ACIAR Consultation on Agricultural Research, 18-22 July, 1983, Nairobi, Kenya.
- Alila, P.O., Migot-Adholla, S.E. and Ruigu, G.M., Evaluation on Small-Scale Irrigation Projects in Tana South, Coast Province. Report submitted to the Small-Scale Irrigation Union, Land Resources Development Division, Ministry of Agriculture, Kenya, June, 1983.
- Kinyanjui, Kabiru and George M. Ruigu, Training and Education for Agricultural Development in Kenya. Paper prepared for IDS/FAO Assessment of Trained Manpower Requirements and Training Institutions in the Agricultural Sector in Africa, December 1983.
- Ruigu, G.M., Chekalini Settlement Scheme: A Baseline Survey. Paper prepared for FAO/Partnership for Productivity Service Foundation, June 1984.
- Schluter, M. and Ruigu, G.M., Fertilizer & Seeds Requirements in Kenya from 1982/83 to 1990/91 in World Bank Kenya Agricultural Inputs Review, Report No. 5643-KE, Vol. II, Working Papers June 1985, Washington, D.C.
- Mwangi, W.M., L.P. Mureithi, Migot-Adholla and G.M. Ruigu, Agricultural Development Council Activities in Asia: Lessons for Kenya, February, 1985.
- Ruigu, G.M., Women Employment in Kenya. Paper prepared for the Kenya Government Secretariat, U.N. Decade for Women Conference, 1985, April 1985.
- Ruigu, G.M., Schluter, M. and Kimuyu, P. "A Review of Fertilizer Import Allocation and Pricing System". Paper prepared for the Government of Kenya. Chemical Engineering Consultants. July 1985.
- Ruigu, G., Chweya, J. and Muroki, N., "Unexploited Plant Foods: Towards the Broadening of the National Food Base in Kenya". Report submitted to the FAO, Food Policy and Nutrition Division, August 1985.

- Ng'ethe, N., Ruigu, G.M., "Policy Planning for the Agricultural and Rural Sector: District Focus Approach in the Semi-Arid Areas of Kenya" in Ruigu (ed.) Proceedings of the FAO/FNPU/IDS Workshop on incorporating Nutrition in Development Projects, Eldoret, Kenya, September 2-7, 1985. (forthcoming).
- Ruigu, G.M., (1985) Kenya and the CGIAR: A Study of their Collaboration in Agricultural Research, World Bank, Washington, D.C.
- Ruigu, G.M., Alila, P.O. and Chitere, P.A. Bura Irrigation Settlement Project: A socio-economic survey. Report prepared for NIB/World Bank, August, 1984.
- Evans, H.E. and George M. Ruigu, Approaches to Rural Urban Development. Proceedings of a Workshop organized by the Institute for Development Studies (IDS), University of Nairobi, 22 May 1985. IDS Occasional Paper No. 46, December 1985.
- Migot-Adholla, S.E. and Ruigu, G.M. (1986), Issues on Irrigated Farming in Kenya, Paper presented at the Workshop on Research Priorities on Irrigation Farming Kenya, IDS, April 16, 1986.
- Ruigu et al Towards Intensive Food Production in Kakamega and Kiambu Districts: A Synopsis submitted to the Ministry of Agriculture/Swedish Embassy Development Cooperation Office, Nairobi, August 1986.
- Ruigu, G.M., (ed) The Chekalini People's Participation Project (GCP/KEN 053/NET) Proceedings of a workshop organized by FAO/PFP at Rostermann Development Centre, Kakamega, 7-8th August, 1985. December 1985.
- _____, "The Chekalini People's Participation (Pilot) project. An Evaluation: Group collateral as a means of providing agricultural credit." Report submitted to FAO/Partnership for Productivity service foundation (GCP/KEN 053/NET). December 1985.
- _____, Some Policy Issues on Irrigated Agriculture: The case of large-scale public irrigation schemes. Paper for the joint seminar on irrigation policies in Kenya and Zimbabwe, 27-28 November, 1986, Nairobi.
- _____, (ed). Incorporating Nutrition in Agricultural and Rural Development Projects. Proceedings of FAO, Ministry of Finance Planning, Kenya inter country workshop held at Eldoret, October 1985. (forthcoming).
- _____, (1986) The Bura fuelwood problem. Paper prepared for the seminar on social and economic research programme of the Bura Fuelwood Project, Institute for Development Studies, University of Nairobi, 12th November, 1986.

Ruigu, G.M. and D.W. Makanda, The Bura forestry subproject: A case study, IDS, January, 1987.

Michieka, R., H. Othieno, G. Ruigu and A.N. Said: Towards Intensive Food Production in Kakamega and Kiambu Districts: Field survey results. Ministry of Agriculture, Home Economics and Rural Youth Branch. Intensive Food Production and Utilization Project. March 1987 (215 pp.)

Ruigu, G.M., (1987) Small-Scale Farming in Kenya: Past Performance and future prospects in M. Murphree (ed) Proceedings of the seminar on Issues and Experiences in Rural Development: China, Kenya and Zimbabwe, Harare 10-12 March, 1987, University of Zimbabwe, Centre for applied social services.

F. Chabari and G. Ruigu (1987) Livestock Marketing in the Transmara region, Narok District Kenya (mimeo) May 1987.

SELECTED SEMINAR PAPERS AT MICHIGAN STATE UNIVERSITY:

An International Tea Agreement: What Kenya's Stand Should Be. Paper prepared for the Seminar in Food systems Organization and Policy, Michigan State University, Summer, 1974.

Land Taxation: Issues and Problems: The Case of Kenya. Prepared for seminar on Taxation.

East African Railways: Opportunities and Problems. Submitted for Marketing and Transportation Administration, 18p (Winter, 1974).

Maize Marketing in Kenya. Paper prepared for seminar on Marketing and Development, 20p. Spring, 1974.

"Some Major Policy Issues Facing the Kenya Dairy Industry".

AWARDS:

Secondary School: 1. Preston Religious Knowledge Prize, 1964
2. Preston Science, Prize, 1965.

University: 1) Archer-Sturroch Prize: Awarded to Best Student of the Year 1969.
11) Uganda Company Exhibition: Awarded to the top three students, 1970.

Postgraduate Fellowship: Rockefeller Foundation Fellowship, Michigan State University, 1972-1975 and 1977-1978.

CURRENT RESEARCH:

- 1) Co-ordinator: Irrigation Policies Study: A joint project of Land Management of the University of Zimbabwe, the IDS and the Department of Sociology - Plan to produce a book of readings on irrigation policy.
- 2) Study on the Impacts of the Coffee Boom of 1975-1978 period - Analysis on going. Preliminaries available.
- 3) Bura Fuel Wood Plantation Project: A joint socio-economic study of the IDS, University of Helsinki and IDS, University of Nairobi.
- 4) Food and Nutrition Policies in Kenya.

CONSULTANCY:

- 1987 - Agricultural Research Foundation. Undertake research in livestock marketing in the Transzoia region of Narok District.
- 1987 - Partnership for Productivity/ADF. Evaluate Impact of credit programmes to women groups in Kakamega and Nyeri Districts.
- 1986 - Government of Kenya, Ministry of Agriculture/Swedish Embassy Development Cooperation office. Survey on Food Production in Kakamega and Kiambu Districts (Home economics and Rural Youth Branch.
- 1984 - Consultative Group on International Agricultural Research (CGIAR) Washington. Undertake a Study of Collaboration. Between International Agricultural Research and Kenya. Assess Impact of the International Agricultural Research (IARCs) on the National Agricultural Research System.
- 1984 - International Bank for Reconstruction and Development (IBRD) - World Bank. Undertake an Inputs Subsector Study in Kenya with Special Reference to Fertilizer and Improved Seeds Demand up to 1990.
- 1984 - National Irrigation Board, Kenya. Undertake a Social Economic Study of the Bura Irrigation Settlement Project, one of the country's most ambitious irrigation project.
- 1983 - FAO - Jointly with Dr. K. Kinyanjui. Undertake an Assessment of Trained Manpower Requirements and Agricultural Education Institutions in the Agricultural Sector of Kenya.
- 1983 - Kenya, Ministry of Industry, Industrial Promotion Department with Agro Technical Consultants. Undertake a Market Survey of Agricultural Chemicals in Kenya.
- 1983 - FAO/MOA, Kenya/Partnership for Productivity, Kenya. Evaluate a Peoples Participation Project in Agricultural and Rural Development. The Project is directed at the rural poor.
- 1982 - FAO/Kenya Freedom from hunger Council for National Development (KFFHC). Evaluate the Projects of the KFFHC from 1975 - 1982.
- 1981 - Consultant, Food Policy Conference. Kenya Institute of Administration.
- 1981 - Kenya, Ministry of Livestock Development - Jointly with others: Evaluate the socio-economic effects of Foot and Mouth Diseases (FMD) Control Programme.

- 1981 - DANIDA/Kenya, Ministry of Cooperative Development with Dr. P.O. Alila. Research and Evaluation Unit - Baseline Survey on Farm Inputs Supply Scheme; Evaluate the Smallholder Credit Programme.
- 1981 - USAID/Kenya, Ministry of Transport and Communications, with others. Rural Access Roads Impact Study - Evaluation of Impacts of Rural Access Roads - Agricultural and Livestock Topical Study.
- 1980 - Kenya, Ministry of Agriculture - Small Scale Irrigation Unit; with Migot-Adholla and P.O. Alila - Evaluation of Village Irrigation Schemes, Lower Tana.
- 1980 - Wellcome (K) Ltd.: Evaluate Impact of the Radio Programme - Maisha ya Mkulima and at the same time assess demand for the Wellcome Agricultural and Domestic Pests' Chemicals.
- 1979 - National Christian Council of Kenya (NCCCK): Served as a member of a committee of Experts set up by the NCCCK to undertake a Survey and Review of all church sponsored Rural Training Centres. Co-authored the Report.
- 1979 - Government of Kenya IDS/MOA delegates - World Conference on Agrarian Reform and Rural Development, Rome, July 12-20 1979. Acted as one of the Advisors to the Kenya delegation. Served in the Drafting Committee of the Final Report - Declaration of Principles and Programme of Action, FAO.
- 1979 - Kenya, Ministry of Agriculture - Arid, Semi-Arid Lands (ASAL) Project. Served as a member of IDS team contracted by the MOA to prepare strategy and framework for integration projects identified by Ministry of Agriculture Study Team. Co-authored the Final Report: Integrated Framework for Project Appraisal in the ASAL Preinvestment Survey Area in Baringo, IDS, University of Nairobi, May 1979.
- 1972 - Government of Kenya. Served as part of the team that carried out the first Overall Evaluation of the Special Rural Development Programme (SRDP) - Occasional Paper No. 8, IDS, University of Nairobi, 1972.

EXPERIENCE RECORD of McDONALD, Iain Ross

Nationality: Australian

Date of Birth: 29 May 1948

Qualifications: Bachelor of Agricultural Economics, University of New England, New South Wales, Australia, 1970

M.Sc. (Agricultural Marketing), University of Newcastle upon Tyne, UK, 1972

Languages: English (native)

French, Setswana

Professional Experience:

1972 - 1973 Meat and Livestock Commission, UK
Assistant Economist

Collection and dissemination of market information - largely price data. Preparation of weekly, monthly and quarterly market reports. Preparation of industry outlook articles for national farming magazines

1973 - 1975 University of Newcastle upon Tyne, UK
Research Associate, Agricultural Adjustment Unit

Finished work on transportation programming model of feed grain distribution in Great Britain. Analysed results and prepared for publication

1975 - 1983 Ministry of Agriculture, Botswana
Senior Animal Production Officer (Marketing)

National responsibility for planning and management of government activities to improve cattle marketing infrastructure

Duties included:

- collection, collation and analysis of information to provide first comprehensive description of cattle marketing system for Botswana
- coordination of all livestock marketing extension to farmers
- construction and control of a national network of livestock auction sale-yards
- construction of improved cattle handling facilities at railway sidings

Experience Record of McDonald, Iain Ross (continued)

- organization of experimental sheep and goat marketing system for small farmers
- assistance in organization and control of movement of 30,000 cattle from Ngamiland and Chobe Districts to export abattoir in Lobatse
- assistance in the formulation of national trek route policy and of the programme to ensure planning, development and maintenance of a national trek route network

Member of joint Government of Botswana/World Bank team which reviewed the Botswana livestock sector and wrote the World Bank Botswana Livestock Subsector Memorandum, 1983

1981

Australian Government
Consultant Livestock Economist

Short-term mission to review Australian aid to Zimbabwe livestock sector and to recommend future direction

1983 - 1986

Harvard Institute for International Development, USA
Economic Advisor, Commodities/Marketing Section of the Planning Division, Ministry of Agriculture and Livestock Development, Kenya

Responsible for economic analysis and advice on policy issues in the agricultural sector with particular responsibility for the livestock and food crop industries; and for the guidance and training of junior Kenyan colleagues in these areas. This included the following activities:

- Development and institutionalization of improved methods of price analysis; formulation of recommendations for the prices of officially controlled agricultural commodities at producer, wholesale and retail levels, and drafting of Cabinet Papers which carried the recommendations through to the Cabinet
- Monitoring of parastatal companies and institutions within the agricultural sector; review of parastatal budgets; and advice on formulation of Ministry policies towards them

Experience Record of McDonald, Iain Ross (continued)

- Assistance in the preparation and editing of the Agricultural Strategy Paper (1985) which forms the basis of the Ministry's medium-term strategy for the development of the agricultural sector and which was incorporated into the agricultural chapter of Parliamentary Sessional Paper No. 1 of 1986 "Economic Management for Renewed Growth". Particular responsibility for the preparation of detailed appendices for the beef and dairy industries, and for formulating strategies for growth within them
- Appraisal, preparation, monitoring and review of projects within the livestock industries
- Collection and analysis of data for the food crop and livestock industries, and establishment of a computerized data bank of information describing these industries. Establishment of price surveys at livestock markets and abattoirs serving Nairobi
- Economic analysis and preparation of briefing papers and Cabinet Memoranda in the following areas:
 - . Drought, including potential Government responses in the livestock industries; the effects on the beef and dairy industries; requirements for the importation of dairy commodities; drought recovery measures
 - . Privatization of Government services and parastatals, including Uplands Bacon Factory, the Kenya Meat Commission and veterinary services
 - . Cash flow problems of marketing parastatals, including Uplands Bacon Factory, Kenya Meat Commission and government-owned sugar companies
 - . National food-grain storage policy, storage capacity and requirements
 - . Domestic price structures for beef, milk, maize, wheat, and livestock feeds
 - . The cotton industry
 - . Domestic tea prices

1986 - 1988

Western Savannah Development Corporation (WSDC),
South Darfur, Sudan
Head of the Monitoring and Evaluation Division

Experience Record of McDonald, Iain Ross (continued)

Chief Economist reporting directly to the Director-General of WSDC, a corporation which has the statutory responsibility for guiding the agricultural development of South Darfur

Responsible for the design, implementation and analysis of a range of surveys to monitor the work of the Corporation against its objectives and work programmes, and to evaluate the effect of the Corporation's activities on the agricultural economy of the region. Also responsible for providing an economic dimension to the Corporation's adaptive research activities, and preparation of annual reports

Duties included:

- Design, implementation and analysis of surveys of the area under WSDC's jurisdiction. Training of enumerators; organization of the surveys, including transport and logistics; collation and analysis of results; writing and presentation of final reports. The surveys included pre-harvest surveys designed to estimate the size of harvest and advise Government on needs for possible relief interventions; surveys to evaluate the effectiveness of the extension service; surveys to enhance WSDC's researchers' understanding of the range of agricultural production systems within the region, i.e. arable, transhumant and nomadic. Also established market surveys to record the prices of a range of agricultural commodities and consumer items
- Provision of economic input into the design of trials to test new agronomic practices, including different levels of fertilizer application, various combinations of crop rotation and the use of animal-drawn agricultural implements being developed by the Corporation for use by farmers in the Province

1989

Minster Agriculture, UK
Consultant, assigned to Agriculture and Infrastructure Rehabilitation Project in South Western Uganda for the establishment of a Monitoring and Evaluation Unit

Experience Record of McDonald, Iain Ross (continued)

- Publications:
- A Model of Transportation of Grains for Livestock Feeding in Great Britain, Agricultural Adjustment Unit, University of Newcastle upon Tyne, UK, 1975 (co-author)
 - Botswana: A Handbook of Livestock Statistics, 1978, Ministry of Agriculture, Botswana
 - Cattle Marketing in Botswana, Ministry of Agriculture, Botswana, 1978
 - Botswana: A Handbook of Livestock Statistics, 1980, Ministry of Agriculture, Botswana
 - Movement and Marketing Systems for Live Animals in Sub-Saharan Africa, for Symposium on Advancing Agricultural Production in Africa, Arusha, Tanzania, February 1984. Published as a Development Discussion Paper by the Harvard Institute for International Development, 1985 (co-author)
 - "Agricultural Pricing and Marketing in Kenya Since 1970", in: Managing Agricultural Development in Africa, World Bank, 1986.

C U R R I C U L U M V I T A E

MR. LARRY G. K. NGUTTER

Dip. Range Management (with Distinction) Egerton, 1967
B. Sc. Agricultural Economics - Oregon State, 1971
M. Sc. Economics - Oregon State, 1976

I. Address:

Permanent:

C/o Mr. Edward J. Muoka
P. O. Box 20 Mbiuni
Machakos, Kenya

Mailing:

United Nations Development Programme
P. O. Box 30218
Nairobi, Kenya

Telephone:

28776-9 Ext. 305 Nairobi

II. Citizenship:

- a) Place of birth: Mbiuni Location, Machakos District, Kenya.
- b) Date of birth: May 23, 1944
- c) Language:
 - Kikamba - mother tongue
 - English - good
 - Kiswahili - good
 - French - slight

III. Marital Status: Married with dependants;

- a) Lenora Elizabeth, wife
- b) Laurenti Kiswili, son, 17 years old
- c) Dorothy Mutio, daughter, 15 years old
- d) William N. Makau, son, 12 years old
- e) Daniel Dennis Mulei, son, 5 years old

VITA: NGUTTER

IV. Education and Awards:

- a) Etikoni Primary School, 1953/56, passed Common Entrance Examination.
- b) Kalia Intermediate School, 1957/60, passed Kenya African Preliminary Examination.
- c) Mangu High School, 1961/64 Overseas Cambridge School Certificate, School Prefect, member athletics team.
- d) Egerton University, 1965/67; Diploma, Range Management, (with Distinction), member, debating society; Academic Awards in Range Management and Applied Sciences.
- e) Oregon State University, 1968/71 B. Sc. Agric. Econ. FAO Fellow. Alpha Zeta Fraternity; President, African Students' Union.
- f) Oregon State University, 1976, Msc. Economics.
- g) Stanford University (Food Research Institute) Aug. 1984.

V. Employment Record and Duties:

- a) June 1988 to present: Programme Officer, UNDP Nairobi. Responsible to the Deputy Resident Representative for the day-to-day management of the Country, Regional, Interregional and Global projects in support of UNDP's Technical Assistance Programme in Kenya.
- b) June 1987 to June 1988: Deputy Chief Economist, Ministry of Education. Responsible to the Permanent Secretary for co-ordination of work in the Development Planning and Monitoring Division. The work involved economic, financial and social analysis of development projects; long and short-term policy planning including preparation of the five year development plans and analysis of existing policies; statistical information and analysis in the education sector. The Division had an establishment of 20 professionals.
- c) March 1984 to June 1987: Principal and Deputy Chief Economist, Ministry of Planning and National Development. Responsible to the Director of Planning for development and administration of a professional Scheme of Service for Planning Officers and Economists/Statisticians. The Scheme now has over 400 Professional

VITA: NGUTTER

Economists/Statisticians spread throughout the Public Service Sector. Also responsible for planning matters in the natural resources (agriculture, water, forestry, co-operatives etc.) sector.

- d) January 1979 to March 1984: Senior/Principal Economist and Head, Development Planning Division, Ministry of Livestock Development. Responsible to the Permanent Secretary for economic, financial and social feasibility of development projects; livestock commodity analysis (production, marketing, processing, pricing) and short-term policy planning; long-term (strategic) planning including preparation of development plans. Supervised 20 local and international professionals.
- e) May 1976 to January 1979: Senior Economist and successively, Head of Commodity Analysis, and Project Planning Sections of the Ministry of Agriculture. Responsible for analysis of problems facing both food and cash crops, and livestock products; design of possible solutions to those problems. Also responsible for identification, prioritization, preparation, appraisal and monitoring of agricultural projects.
- f) November 1973 to April 1976: Planning Officer/Senior Planning Officer, Ministry of Agriculture. Economic Planning duties related to crops and livestock development.
- g) November 1971 to October 1973: Range Economist/Range Officer, UNDP/FAO Range Management Project. Responsible to Project Manager for assessing Economic viability of proposed new ranching schemes in Kenya, as a member of a multi-disciplinary range surveys team.
- h) December 1968 to October 1971: Student, FAO Fellow, Oregon State University, U.S.A.
- i) January 1968 to November 1968: District Range Management Officer, Baringo District.

VI. Other Duties/Consultancies:

- a) 1978/79: Two year ad-hoc consultant to Mwenge International Consultants on "Land use in Kenya". The main consultancy was a multi-million dollar study on the future and management of Very Large Herbivores in Kenya, financed by the World Bank.

VITA: NGUTTER

- b) 1982/83: Retained by the FAO to collect, analyse and collate "Data on Public Expenditure in Agriculture: for the previous 5 years.
- c) 1984: Member of a Kenyan Government taskforce on food. The taskforce was set up by the Cabinet to schedule, monitor, co-ordinate and advise on procurement and distribution of food and other essential commodities during the then drought and food shortages.
- d) 1983/84: Part-time Lecturer, "Economics of Livestock Production in Range Areas", University of Nairobi. Teaching Final Year B. Sc. students in the Department of Range Management.
- e) 1987: Retained by the Intergovernmental Authority on Drought and Development (IGADD) as Resource Person to an FAO/IGADD Mission on Food Security and Early Warning System in the IGADD region (Kenya, Uganda, Sudan, Ethiopia, Somalia and Djibouti).
- f) 1988: Team Leader of four-man consulting team to IDA/IBRD. Prepared full project for implementation entitled "Livestock Marketing in the Southern Rangelands" for IDA/IBRD.

VII. Membership to Professional Bodies:

- a) Alpha Zeta Fraternity for Agriculture Economists
- b) Agricultural Society of Kenya
- c) East African Society of Range Management
- d) Board Member, Ukamba Agricultural Institute of Technology
- e) Experment in International Living
- f) Kenya Economic Association
- g) Society for International Development (Kenya Chapter)

VIII. Foreign Travel and Experience:

As Head of Commodity, Analysis Section in the Ministry of Agriculture, I was a member of Kenya's delegation to the Integrated Programme for Commodities negotiations in Geneva, Switzerland, during the period 1976/78.

VITA: NGUTTER

As Head of Projects, Planning Section, I represented Kenya at donor negotiations in Washington (World Bank and USAID) and in Rome (FAO).

As Head of Development Planning Division, Ministry of Livestock Development, travelled widely to attend seminars, workshops etc. in Argentina, Nigeria, Mexico, U.S.A., Australia, India, Ethiopia and Tanzania.

Participated at the formative meetings of IGADD; prepared Kenya's national and regional projects; attended two Ministerial conferences and one donors' conference in Djibouti on IGADD.

IX. Publications:

The nature of my work does not require external publications of my written work. Most of it is internally-oriented memoranda, reports and working papers, and some of it is of confidential nature. The following solicited works may be of interest:

- a) "Survey Approach to Pastoral Herd Evaluation", Kenya Range Land Surveys, FAO, Rome 1973.
- b) "The Role of Government in Agricultural Development", paper prepared for the Office of the President, Nairobi 1975.
- c) "The Role of Agriculture in National Development", paper presented at Induction Course for District Officers, Kenya Institution of Administration, Kabete 1977.
- d) "Some Economic Considerations in Managing Rangelands for Domestic Stock", Kenya Soil Survey Project, Kabete, 1977.
- e) "Arid and Semi-arid Lands Development in Kenya", Government of Kenya, May 1979 (Leader of the Task Force).
- f) "Coordination and Management of Pastoral Development Projects", in Design and Implementation of Pastoral Development Projects for Tropical Africa, ILCA Working Document No.4 1980.
- g) National Livestock Development Policy, Ministry of Livestock Development, Government Printer, Nairobi, June 1980.

VITA: NGUTTER

- h) "Government Policy in Semi-Arid Areas", in Campbell D. and S. E. Migot Adholla, (Editors) Development of Kenya's Semi-Arid Lands. Institute of Development Studies, University of Nairobi Occasional Paper No.36, January, 1981, pp. 25-39.
- i) "Data on Public Expenditure on Agriculture in Kenya", prepared for FAO, Rome, June 1982 - March 1983.
- j) "Institutions and Procedures for Policy Formation - A Case Study of Kenya", paper presented to the International Livestock Centre for Africa (ILCA) Livestock Policy Conference, Addis Ababa, September 1984 (With Prof. J. B. Wyckoff).
- k) "Problems of Marketing: Appropriate Policies and Organizations", in Commonwealth Agricultural Bureau Advancing Agricultural Production in Africa: Proceedings of CAB's First Scientific Conference, Arusha, Tanzania, February 12-18 1984.

X. Hobbies:

- a) Reading
- b) Current Affairs
- c) In-door Games
- d) (Watching) soccer and athletics

L. G. K. NGUTTER

January 1989

CURRICULUM VITAE

Name: Mutsembi Manundu

Address: P.O. Box 30197
NAIROBI, Kenya

Telephone: Office - 334244

Date of Birth: November, 1949

Nationality: Kenyan

Marital Status: Married, 2 children

Position: Lecturer of Economics at the University of Nairobi.

Qualifications: B.A. in Economics (First Class Honours),
University of Nairobi, 1973

Subjects Taken:

1. Microeconomics
2. Macroeconomics
3. African Economic Problems
4. Agricultural Economics
5. Management Accounting
6. Mathematics for Economist
7. Quantitative Methods in Economics
8. Statistics
9. Economic Development
10. Economic Planning

M.A. in Economics - University of Michigan
(Ann Arbor), 1975.

Subjects Taken:

1. Microeconomics
2. Macroeconomics
3. Statistics
4. Econometrics
5. Mathematics for Economists
6. Development Economics
7. International Trade Theory
8. International Finance
9. Forest Economics
10. Resource Economics

Working Experience:

1977-Date: Lecturer, Department of Economics, University of Nairobi.

1973: Graduate Research Assistant, Institute for Development Studies, University of Nairobi.

1970: Headmaster, Mbaikini Secondary School, Kenya.

1968: Deputy Headmaster, Mukaa High School, Kenya.

Fields of Interest
and Specialisation:

1. Economic Development
2. Resource Economics
3. International Economics (International Trade and International Finance).

Currently Teaching:

1. Quantitative Methods in Economics to Final Year B.A. students.
2. Introduction to Microeconomic Theory, to First Year B. Com. students.

Previously Taught:

1. Microeconomics to Second Year B. Com. students, University of Nairobi, 1977-1982.
2. Macroeconomics to Second Year B. Com. students, University of Nairobi, 1982-1984.
3. Economics of Urban and Regional Planning to M.A. students, University of Nairobi, 1979-1982.
4. Economic Development to Final Year B.A. students, University of Nairobi, 1978-1981.
5. Mathematics for Economists to First Year B.Sc. students, Kenyatta University, 1980-1982.
6. International Economics to Final Year M.A. students, University of Nairobi, 1982-1987.
7. Economics of Political and Social Systems to Final Year M.Sc. students, United States International University, Nairobi Campus, 1987.
8. Comparative Economic Systems to Final Year B.Sc. students, United States International University, Nairobi Campus, 1987.
9. Introduction to Microeconomics to First Year B.Sc. students, United States International University, Nairobi Campus, 1987.
10. Introduction to Macroeconomics to First Year B.Sc. students, United States International University, Nairobi Campus, 1987.
11. Development Planning to Final Year B.A. students, University of Nairobi, 1979-1981.

Consultancies:

1. "Household Income, Access to Energy and Health Status - the Case of METROPOLITAN NAIROBI". Paper prepared for a Workshop on Urban Planning and Development, Nairobi, 1988.
2. "The Impact of Structural Adjustment Programmes on Health - the Case of Vulnerable Groups in Kenya". Paper presented at a Workshop on Structural Adjustment, Nairobi, Kenya. October 1988.
3. "Nairobi Area Study - Health Care Delivery Study". I was the leader of the Costs and Utilization Group in the study. Funded by USAID, through Reach of John Snow Inc., 1988.
3. "Price Controls: Experience of and Opportunities for Kenya's Manufacturing Sector". Policy Impact Study for KAM. Commissioned by KAM, funded by USAID through ADEC.
5. "Econometric Estimates and Projections of Water Demands in the Nol-Turesh Water Pipeline Corridor, 1988-1991, 2001 and 2011". Commissioned by SINCAT/GOK, 1987/88.
6. "An Econometric Analysis of the Willingness to Pay for Water in the Nol-Turesh Water Pipeline Corridor". Commissioned by SINCAT/GOK, 1987/88.
7. "Inventory of Economic Resources in Machakos District". Commissioned by MIDP through ADEC, 1986.
8. "Evaluation of the Water Resources Assessment Programme". Commissioned by GOK/TINO, 1986. I was the economist for the team.
9. "Small Scale Women Entrepreneurs in Mombasa and Kilifi Districts" for Kenya Women Finance Trust (through ADEC). September 1987. Commissioned by the KWFT.
10. "A Critical Analysis of Kenya's Agricultural Development Policy", for the 2nd OSSREA Conference, July 1986. This paper was a critical analysis of agricultural development policy in Kenya - the challenges and options. Funded by OSSREA.
11. "Why Africa Stagnates and Possible Development Options for Africa in the 1980's and Beyond", the 2nd Cooperative Commissioners' Conference on Mobilization of Personal Savings Through Savings and Credit Cooperatives. Organized by ACOSCA, June 1986. This paper examined the causes of economic stagnation in Africa and options and prospects for the future. Funded by the Knorad Adenaur Foundation.
12. "The Informal Sector and Rural-Urban Migration", for the National Council for Science and Technology Friedrich-Ebert Foundation Workshop on the Rural Informal Sector, February 1986. This work examined the causes of rural-urban migration in Kenya, how this impacts itself on the informal sector, and the policies needed to reduce the rural-urban human

drift and help informal sector activities. Funded by the Friedrich-Ebert Stiftung.

13. "The Dysfunction Between Educational Output and Employment Opportunities in Kenya", February 1986. This study analysed the imbalance between employment opportunities and output of the school system in Kenya and the implications of this state of affairs. Submitted to TEKUZA Research Institute.
14. "The Economic Policy of the Republic of Kenya", for the Konrad-Adenaur Foundation/Department of Economics Workshop on Economic Policy and Development Options for Kenya, December 1985. This work examined how economic policy in Kenya has influenced the country's pattern and pace of economic growth and development since Independence in 1963. Funded by the Konrad-Adenaur Foundation.
15. "Barriers to Resource Development: The Case of Afforestation in the Semi-Arid Regions of Kenya". Study submitted to the National Council for Science and Technology, September 1986. This work examined the economic constraints to afforestation in private land in Kitui District, Kenya. Financed by the NCST.
16. "The Role of Government and Farmers' Organizations in the Sugar Industry", work done for the Ministry of Agriculture as part of the Sugar Rehabilitation Programme. Funded by the Friedrich-Ebert Foundation, October 1985. The study examined the effects of the Government and Farmers' Organizations on producer incentives in the sugar industry.
17. "Investment Opportunities for Low-Income Kenyan Women in Trade, Commerce, Agriculture and Industry". For KWFT (through ADEC), 1985. This study examined and ranked the opportunities open to low-income Kenyan women for investment purposes. Funded by the KWFT.
18. "The Agro-Economy of Kisumu Municipality", for H.P. Gauff and Ministry of Water Development, Kenya. The study examined the agro-economy of Kisumu Municipality and the likely dynamic changes in the area to the year 2005, May 1985. Funded by GOK/German government.
19. "Women in Co-operatives in Kenya, 1975-1985", for U.N. Decade for Women, April 1985. This paper examined the participation, integration and the benefits accruing to women from the co-operative movement in Kenya. It also assessed how women have fared in cooperatives from 1975 to 1985 and suggested how women's participation in and benefits from the Cooperative Movement could be enhanced. Funded by the GOK.

20. "The Kerio Catchment: A Rehabilitation Study", for ADEC, October 1983. This study was an inventory assessment of resources of the Kerio Valley region. The purposes was to generate a viable socio-economic development plan for the region from 1983 to 1988. Funded by the KVDA.
21. "Formal and Informal Financing in a Sites and Services Housing Project in Kenya: A Case Study prepared for UNCHS (Habitat), 1983. This work examined the sources of finance in the construction of low-cost housing in Dandora, Nairobi. I proved the economic inputs in the design and analysis stages.
22. "Agro-forestry Evaluation Survey in Kenya - 1983", for EDI (through ADEC) July 1983. The purpose of this study was to establish base-line data to facilitate the monitoring of agro-forestry development in Kenya.
23. "Kenya's Comparative Advantage: Identification of High Potential Investment Areas", for Trade Development International, funded through MAZINST as part of the Kenya Rural Enterprise Project, May 1983. This was an investment study whose objective was to identify potential investment areas for funding purposes. The criteria for project selection were profitability, employment generation, rural development and foreign exchange earning capacities of the projects.
24. "Forestry in Tharaka" for Arid and Semi-Arid Lands (ASAL) Project, August 1981. This work was an assessment of the forest inventory in Tharaka, and made proposals on how to develop this resource in order to halt desertification processes in the region and raise the livelihood of the people.
25. "Forestry and the Environment in Kenya", for UNDP/GOK/UNEP Environment and Development Project, September 1979. This work laid emphasis on environmental degradation resulting from the felling of wood for fuel in Kenya. It attempted to assess the quantifiable environmental impacts from wood fuel production.
26. "Environment and Development in Kenya". Environment and Development Seminar, April 1977. In this work I looked at how human economic activity interacts with the environment - economy interface in Kenya both from the point of poverty and plenty. Funded by UNEP.
27. "The Petroleum Industry and Energy Sector Study", for MASE, December 1977. This work made an analysis of the Kenya Energy balance in 1977 and made forecasts on future energy demand and supply assuming various growth scenarios. It was an input to the 1979-1982 Development Plan funded by the UNDP and GOK.

Published Research:

1. Urban Food and Fuel in Kenya. I was the project leader and economist in the research leading to this publication. The work involved an analysis of the economic of food and fuel production in the following urban centres in Kenya: Nairobi, Mombasa, Kisumu, Kitui, Isiolo and Kakamega. The impact of food and fuel production, consumption and distribution on the economic well-being of urban residents was evaluated. Funded by the IDRC through the MAZINST, Nairobi, August 1987.
2. Incentives for Increased Agricultural Production: A Case Study of Kenya's Sugar Industry. This was an economic analysis of Kenya's sugar industry, and proposed how to rehabilitate the industry through incentives to farmers. Published by the Friedrich-Ebert Foundation, Nairobi, August 1987.
3. The Impact of Rising Wood Fuel Utilization Rates and Deforestation on a Semi-Arid Environment: Kenya. Published by OSSREA, Addis Ababa, Ethiopia, 1980. This was a cost-benefit analysis of wood fuel harvesting in the economies of semi-arid areas.
4. "The Kenya Ceramic Jiko". Chapter Four in With Our Own Hands, RESEARCH FOR THIRD WORLD DEVELOPMENT: Canada's Contribution Through the International Development Research Centre, 1970-1985. Published by IDRC, Ottawa. This was a case study of the Kenya Ceramic Jiko and the Kuni Mbili Woodstove in Kenya. It assessed the Research and Development and Socio-economic impact of these wood fuel stoves through a Cost-Benefit Analytical Framework.
5. Problems and Prospects of Intra-Regional Trade - The Case of the Preferential Trade Area (PTA). Published by the Friedrich-Ebert Foundation, 1985. This work examined the theoretical arguments for the establishment of the PTA, its operational problems and proper policies needed to make the PTA more effective.
6. Energy Demand and Supply in Kenya. Published as IDS Occasional Paper No. 3 of 1980. This was an econometric study of the energy demand and supply situation in Kenya. Commissioned by UNDP/UNIDO/NCST. The study attempted to make empirical projections of energy demand and supply in the country, especially commercial energy, to the year 2000.

7. The Matatu Mode of Public Transport in Metropolitan Nairobi. Published by the Mazingira Institute (Man Graphics) 1982. I was the economist in the study leading to this publication. I did a cost-benefit analysis of matatus as investment possibilities together with cash flows and sensitivity analyses of matatu profitability with respect to parameters such as vehicle size, vehicle design, fuel type used, loan purchase terms, and management practices.
8. "Production Techniques, Factor Proportions and Elasticities of Substitution". Reading V-6 in Papers on the Kenyan Economy (Edited by T. Killick, Heinemann, 1981). This article looked at the empirical evidence of production techniques and elasticities of substitution in Kenya and drew references on their implications for the economy.

Unpublished Research:

(Presented in Conferences, Seminars, Workshops, etc.)

1. "Causes of Unemployment Among School Leavers in Kenya". This paper examined the causes of unemployment among school leavers and suggested strategies to combat the problem. It dispelled what has been dubbed the "white-collar fallacy" in favour of a model which presumes rational behaviour on the part of job-seekers.
2. "Recurrent, Expenditure on Agriculture in Kenya". Paper prepared for a Workshop on Recurrent Costs of Public Investments and Budget Rationalisation in Kenya. KICC, Nairobi, Kenya.
3. "The Role of Foreign Assistance in the Kenyan Economy". Seminar prepared by R. Winberg, Swedish Embassy in Kenya, October 1987. This paper was a critical review of the cost benefits of foreign aid to the Kenyan economy.
4. "Economic Development in Kenya". For Technical Consultants International, March 1979. This paper tried to answer the question: Is Kenya's economy developing or merely growing? It investigated the parameters of economic growth and economic development, including the issues of basic needs and income redistribution.
5. "Economic Growth Versus Development in Kenya". For Technical Consultants International, May 1979. This paper looked at the trade-off between equity and growth in the Kenyan context.
6. "The Role of Government and Farmers' Organizations in Kenya's Sugar Industry". Paper presented at a Seminar in Webuye, Kenya, August 1986.
7. "Africa's Energy Challenge: Policy Options". For Trend Publishers, May 1981. This paper assessed the energy potential of all African countries excluding South Africa and Namibia,

and suggested ways of harnessing this potential to accelerate economic development in the continent.

8. "International Trade: Past, Present and Future". Conference paper for Institute of International Trade and Faculty of Law (University of Nairobi), International Trade Conference, April 1983. This paper examined the Theoretical arguments for free trade from the point of view of a developing country like Kenya. It assessed the costs and benefits accruing to Kenya from international trade.
9. "Appropriate Industrialization Strategies for Kenya". Presented to the Kenyan Economic Association and Friedrich-Ebert Foundation, May 1984. Given Kenya's comparative advantage in the East and Central African region, this paper proposed an industrialization strategy to help make Kenya a self-sustaining economy by the year 2000.
10. "Ideology and Economic Development in East Africa". Presented to Friedrich-Ebert Foundation Workshop, May 1984. This paper examined the impact of ideology on economic performance in the East African economies.
11. "The Economics of Rural-Urban Migration and Economic Development in Kenya", July 1984. This paper examined the economic forces that induce people to migrate from rural to urban areas. It proposed strategies to stem the rural-urban flow of people in Kenya. Presented at a TEKUZA Research Institute Seminar, Kisumu, Kenya.
12. "The Development of the External Debt Problem in Kenya". For Friedrich-Ebert Foundation, November 1984. This paper analysed the historical development of Kenya's external debt the then current size of the debt burden on the economy and proposed measures to help bring Kenya's foreign debt under control.
13. "Problems posed by Monopolies and Oligopolies". For Public Law Institute, December 1984. This paper examined Kenya's industrial structure and its effects on the welfare of consumers, workers and the society in general.
14. "On the Economics of Free Education in a Developing Country: The Case Study of Kenya". The paper examined the theoretical issues and problems that were likely to confront Kenya in its attempt to provide free education.

Language Proficiency:

- English - good in writing, reading and speaking.
- French - studied for 2 semesters, University of Michigan, 1976.
Can read economic texts.
- Swahili - good in writing, reading and speaking.

ELIZABETH NJERI MAREKIA

ADDRESS	P.O. Box 74109 Nairobi, Kenya
TELEPHONE	Office 747010 House 810933
DATE OF BIRTH	November 1959
PLACE OF BIRTH	Naivasha, Kenya
MARITAL STATUS	Single
EDUCATION	"O" Level, Division One. 1978. Kapropita Girls High School. "A " Level, 14 Points. 1980. Kipsigis Girls High School. Faculty of Law Student. 1983. University of Nairobi. B.Sc. 1985. Environment and Biology, St. Lawrence University, New York.
<u>Undergraduate Courses</u>	Constitutional Law Law of Contracts Law of Torts Criminal Law Environmental Ethics and Philosophy Introduction to Environmental Studies Environmental Problems in Third World Environmental Law Wildlife Conservation Environmental Impact Assessment Field Botany Plant Systematics Ornithology Ecology

M.E.S. [Master in Environmental Studies],
1987. York University, Toronto, Canada.

Specialization Environmental Advocacy

Major Paper Grassroot Facilitation in Developing
Nations' Environments.

Graduate Courses

Approaches to Environmental Studies

Perspectives to Environmental Behavior

Introduction to Development Studies
Management in Turbulent Environments

Theory and Planning of Rural Land Use

International Development

Cooperative Management

Approaches and Methods in Process
Consultation

Rural Development in East Africa

Native Land Claims, Environmentalism and
British Columbia Forestry Industry

Western Canada Environmental Issues

Environmental Advocacy: Readings and
Consultation with Advocates

Introduction to Environmental Economics

Action Learning

Computers in Environmental Studies

Critical Education and Social Change

Resource Management in Third World

Grassroot Facilitation in Developing Nations'
Environments

Community Education and Development

International Development Workshop

Facilitation Workshop

Fieldwork

Alberta, Canada - Worked with community conservation groups and officials.

British Columbia, Canada - Worked with Haida Indians on impact of timber industry on traditional conservation.

CONSULTANCIES

1. Recycling of photo-chemical waste in Nairobi. Undugu Society, 1988.

WORK EXPERIENCE

High School Teacher. Laikipia High School. 1981

Teaching Assistant, St. Lawrence University, 1986.

PROFESSIONAL PAPERS

1. Women and Development in Kenya. York University.
2. Definition and the Nature of Women in Development. CARE.
3. Western Environmental Advocacy: Its Relevance to Developing Countries. York University.
4. Wildlife Conservation in East Africa. York University.

C U R R I C U L U M V I T A E

Name : J. H. van Doorne
Date of Birth : 20 XII 1940
Nationality : Kenyan
Education : Ir. (Rural Sociology and Economics)
Wageningen Agricultural University; 1969
Occupation : Associate Professor designate (1.9.89)
School of Social, Cultural and Development
Studies (Sociology), Moi University.

Occupational Record

1985 to date : regional planner, Kerio Valley Development Authority; responsible for:

- regional long range planning
- monitoring, coordination and evaluation of development projects in the region, in particular land rehabilitation, range management, irrigation, and the participatory aspects of the same.
- liaison with DDCs and NGOs in the districts of Turkana, West Pokot and Samburu.
- participation in planning exercise at the national level for the national development plan 1988-1993.
- forward planning for the Authority
- project formulation
 - . Suam Catchment Rehabilitation Project
4 years; KShs. 70 million; World Bank
 - . Turkwel Basin Environmental Study
3 years; KShs. 30 million; NORAD funds.
 - . Weiwei Irrigation Project
4 years; KShs. 300 million; Italian aid.

1972 - 1985 : lecturer, University of Nairobi, Department of Sociology. Courses taught:

- statistics (graduate and undergraduate)
- introduction to sociology
- social theory
- rural sociology (Kabete campus)
- planning 'Urban and Regional Planning, ADD'

Administrative responsibilities in the Department and the Faculty of Arts concerning curriculum development, graduate studies and examinations.

1969 - 1972: research fellow with the University of Zambia for a study of urban migration and employment in a new industrial town.

Consultancies

1963 : demographic and economic survey of Kembe, a secondary rural centre in the Central African Republic; for the EEC.

1965 : a comparative study of four settlement schemes in Kenya's highlands; for the Department of Agricultural Economics, Wageningen University

1968 : a survey of agricultural production, potential and service organisations in Zambia's Northern provinces; for the Zambian Government.

1975 : squatter settlements' survey in Kisumu; for the World Bank's Low Cost Housing Project.

1984 : a review of small-scale irrigation in Kenya; for the Food and Agriculture Organisation of the United Nations

1985 : evaluation study of Loyapat Integrated Development Project; for the Reformed Church Mission Board, Kenya.

1986 : team leader for the mid-term review of the support programme for the Provincial Irrigation Unit, Rift Valley Province; for the Kenya Government.

Articles and Papers

1. High Fertility: Cause or effect of Poverty ?
an analysis of population growth and community based policies
Dept. of Sociology, Seminar Paper no.17, (1976)
2. Prejudice As A Normal Mental Mechanism
paper presented to the Annual Philosophical Forum of the
Philosophical Association of Kenya; Nairobi, 1979
3. The Role Of The District Welfare Officer In Development
Seminar for district level officers in the Ministry of Housing
and Social Services, KIA, 1979
4. Formal Organizations and The Group Approach
Department of Sociology, Seminar Paper no.34, 1979
5. Development Planning and Participation From Below
paper presented at a seminar of the Society For International
Development; Nairobi, 1979
6. Population Density, Land Potential and Outmigration: in search
of development parameters
Jl. of Eastern African Research and Development, vol.10, 1980
7. The Importance Of Small-Scale Projects For Social Development
NCKK seminar on small-scale irrigation projects in Kenya's
semi-arid regions; Limuru, 1981
8. The Situational Analysis Theory In British Anthropology and
Its Applicability To The Study Of Social Change In Africa
Cahiers d'Etudes Africaines, vol.XXI (4), 1981
9. (with Dr. P.A.Chitere): Extension Education and Farmers'
Performance In Improved Crop Farming In Kakamega District
Agricultural Administration 18 (1985), 39-55
10. Water Resource Development and Vector-Borne Diseases
Paper presented at a seminar held at the request of
the Panel of Experts on Environmental Management, a
joint activity of FAO, WHO and UNEP, by the Ministry
of Health - Division of Vector-Borne Diseases.
5 - 9 September 1988; Kisumu. (report in press) (WHO).

Reports and Studies based on field work

1. Demographic and Economic Survey of Kembe (Republique Centrafricaine)
to Europrede; a consultancy for the EEC (1964)
2. The Establishment of Smallholder Farming In Kenya's Highlands
to the Dept. of Agricultural Economics, Wageningen University (1967)
3. Economic Interest and Grassroot Politics In A Squatter Compound
to the Kafue Basin Research Committee, University of Zambia (1972)
4. Housing In Kisumu's Unplanned Residential Areas
for the World Bank project for low cost housing in
Nairobi, Mombasa and Kisumu
5.
 - a. Child Abuse In Kenya
 - b. Marginal Communities Around Kenya's Towns
 - c. The Street Sleepers Of Nairobireports to the Kenya National Council For Social Service,
based on field work by twelve Sociology students of the
University of Nairobi; 1980
6. Loyapat Rural Integrated Development Project 1983-1985
evaluation report on a small-scale irrigation and pastoral
extension project in South Turkana; 1985
7. Micro and Macro in Irrigation: the participatory approach and
farmers' management in irrigation in semi-arid areas.
Paper presented at the Joint Kenya-Zimbabwe Seminar on Irrigation
Policies; Nairobi 27-28 November 1986
Institute of Development Studies, University Of Nairobi, and
Department of Land Management, University of Zimbabwe.
8. Range and Catchment Management in Arid Lands: the potential
for local contributions and participation of land users
Kenya National Seminar on Agroforestry; 7-16 November 1988
(in press, ICRAF)
9. Survey of Small-Scale irrigation in Kenya
Land and Water development Division, Food and Agriculture
Organisation of the United Nations.
AGL/MISC/2/85, Rome, 1985

CURRICULUM VITA

NAME; Erik Nissen-Petersen

DATE OF BIRTH; 25th January 1934

PRESENT POSITION; Water Conservation Adviser: Danish International Development Agency (DANIDA) and the Ministry of Agriculture in Kenya.

ADDRESS; P.O. Box 642, KITUI, Kenya (up-to June 1989).
P.O. Box 68, KIBWEZI, Kenya (after July 1989).

NATIONALITY; Danish

MARITAL STATUS; Married. 3 adult children

EDUCATION; Building Contractor.
Uncompleted Engineering Study.
Navy Technician.
Carpenter.
Farmer.

LANGUAGES; English and Kiswahili (fair).
Danish (good).

COUNTRIES WORKED IN; Denmark, Canada, Kenya, Sudan, Rwanda and Zimbabwe.

COUNTRIES VISITED OUTSIDE EUROPE; Morocco, Gambia, Tanzania, Israel, Egypt and Ethiopia.

OCCUPATIONS;

February 1988-June 1989: Water Conservation Adviser in Kitui District for DANIDA and Kitui ASAL (Arid and Semi-Arid Lands Development).

May 1982-June 1988: Construction Foreman on designing and supervising rainwater harvesting structures for "Mutomo Soil and Water Conservation Project" in semi-arid Kenya, DANIDA/Ministry of Agriculture.

May 1980-April 1982: Free-lance consultant.

May 1979-April 1980: Manager of a pilot project "The Green Valley" in semi-arid Kenya, DANIDA/Ministry of Agriculture.

May 1977-April 1979: Technical Co-ordinator to the Director

of Veterinary Services in Kenya on
"Kenya Tick Control Project", DANIDA/
MOA.

March 1979-March 1974: Construction Foreman on "Danish Cattle
Dip Project" in Kenya, DANIDA/MOA.

Feb. 1959-1974: Private Contractor in Denmark.

1958-1959: Carpenter craftsman.

1956-1958: Military Technician in the Royal Danish
Navy.

1955-1956: Immigrant in Canada, construction and
lumbering.

1954-1955: Military service in the Royal Danish
Navy.

1950-1954: Apprentice in carpentry in Denmark.

KEY QUALIFICATIONS:

1. 15 years of work in developing countries in Africa.
2. Motivation and management of large numbers of artisans and labourers (20,000 people) in labour-intensive self-help work with or without food-for-work.
3. Training of artisans in low-cost and low-technology structures.
4. Design and construction of rainwater harvesting structures for water supply and farming in semi-arid regions, and of renewable energy systems, cattle dips and tick control.
5. Tree planting and agroforestry in arid and semi-arid zones.
6. Technical exhibitions and appropriate technology literature publication.

CONSULTANCIES;

1. Construction of Cattle Dips in Sudan by FAO - January-May 1981.
2. Film on "Development" in Kenya by Danish TV - July 1981.
3. Construction of Cattle Dips and Water Supply in Kenya by FAO - August to September 1981.
4. Project proposal on Tick Control Project in Kenya by DANIDA - October to November 1981.

5. Evaluation of Tick Control Project in Rwanda by FAO - July 1982.
6. Film on "Trees in Africa" in Kenya by Danish TV - July 1982.
7. Film on "Letters from my Cousin in Africa" by Danish TV - 1982.
8. Seminar on Rainwater Harvesting in Kenya by FAO - November 1984.
9. Rehabilitation of Red Sea Hills in Sudan by Danish Red Cross - August 1986.
10. Film on "Water, Soil and Trees in Africa" by Danish TV - January 1987.
11. Tree-planting at schools in Zimbabwe by Danish Red Cross - March 1987.
12. Kisumu Integrated Biogas Project by the Danish Centre for Renewable Energy - July 1987.
13. Kajiado Integrated Biogas Project by DANCHURCHAID - October 1987.
14. Matero Girls Training School by DANIDA and DANCHURCHAID - October 1987.

EXPERIMENTAL RESEARCH;

Manager and Co-owner of a private pilot project "Wanza Biodynamic Farm" which deals with soil and water conservation, renewable energy, agroforestry and rainfed agriculture in semi-arid Kenya since 1976.

PUBLICATIONS;

1. "Rainforced Cattle Dip", FAO/MOA, Sudan. Unpublished. Author.
2. "Rain Catchment and Water Supply in Rural Africa". Author.
3. "Water From Rocks". Article in Waterlines. January 1985. Author.
4. "Water From Sand". Article in Waterlines. January 1986. Author.
5. "Construction of Cattle Dips". DANIDA/MOA, Kenya, 1977. Co-author.
6. "Cattle Tick Control". FAO/MOA, Kenya, 1982. Co-author.
7. "Water Harvesting in Arid and Semi-arid Africa". Unpublished

manuscript, 1988. Co-author.

EXHIBITIONS;

1. Cattle Dips: Machakos Agricultural Show, 1977.
2. Tick Control: Nairobi Agricultural Show, 1978.
3. Wanza Biodynamic Farm: U.N. Energy Conference in Nairobi, 1981.
4. Biogas in Rural Kenya. BIOenergy in Gothenburg, Sweden, 1983.
5. Biogas: Machakos Agricultural Show, 1983.
6. Biogas: Nairobi Agricultural Show, 1983.
7. Biogas: Embu Agricultural Show, 1984.
8. Biogas: Nairobi Agricultural Show, 1984.
9. Soil and Water Conservation: Nairobi Agricultural Show, 1984.
10. Regional Cash Crops: Nairobi Agricultural Show, 1985.
11. Agro-ecological Zones: Nairobi Agricultural Show, 1986.
12. Rainwater Harvesting: Nairobi University, 1986.
13. Rainwater Harvesting: World Bank Workshop in Baringo, 1986.
14. Rainwater Harvesting: DANIDA 25-year jubilee in Copenhagen, 1987.
15. International Conference on Renewable Energy: Thy, Denmark, 1988.

EXPERIENCE RECORD of SCHURE, Petrus T.

Nationality: Dutch

Date of Birth: 14 February 1938

Qualifications: M.Sc. (Agriculture), Agricultural University,
Wageningen, the Netherlands, 1963
Special subjects: rural development planning,
physical planning, land and water development,
economics, EDP, optimization models for land and
water use under irrigation (with linear
programming)

Post-graduate course in cost-benefit analysis

Languages: Dutch (native)
English, French, German

Professional Experience:

1964 - 1969 Food and Agriculture Organization (FAO), Rome,
Italy
Senior Irrigation Engineer

(1964-1966) Ghana: Land and Water Resources Survey for the
Upper and Northern regions, comprising an area of
approximately 40,000 square miles

(1966-1968) Sri Lanka: Feasibility study for the Mahaweli
Ganga Project

- cost estimating of irrigation works, land
development settlement and all general services
for the population (health centre, market,
school, etc.)
- contribution to the overall cost-benefit
analysis of the project

(1968-1969) Mauritius: Preparation for Northern and Western
Coastal Irrigation Schemes

- detailed design and planning of irrigation
systems and land development (system planning
with computer application and programming)
- preparation and presentation of a university
course in water resource development and
irrigation systems

1969 - date The Province of Noord Brabant (regional
government), 's-Hertogenbosch, the Netherlands
Project Manager, Rural Development

Experience Record of Schure, Petrus T. (continued)

- Responsible for coordination of the activities of provincial agencies in relation to rural development. Liaison with other government agencies working in adjacent fields. Identification and development of projects with a view to improving the employment potential in the region
- (1975) On secondment to Agrar- und Hydrotechnik, Germany
Assigned to Nepal as Irrigation Engineer
Responsible for reviewing the physical plans for the Chitwan Irrigation Development Scheme
- (1976-1978) On secondment to the Ministry of Development Cooperation, the Netherlands
Assigned to Jamaica as Rural Planner
Duties included:
- responsibility for the preparation of physical plans for the development of agricultural lands and settlement of farmers, including general services and farm supply and produce marketing
 - supervision of the implementation of plans
 - advising the financial agencies on the feasibility of projects: preparation for the IBRD of network plans for the consecutive implementation of 10 sub-projects (under the First Rural Development Project), with a total value of US\$30 million
 - establishment of the Rural Physical Planning Unit in a government department
 - creation and start-up of a training section in the Unit, development of curricula for:
 - . base material inventory and collection
 - . integration of same and elaboration of conclusions
 - . drawing up physical plans
 - evaluation of rural development projects
- (1984-1985) BMB, Management Consulting for Development B.V., Tilburg, the Netherlands
Consultant, Irrigation Sector
Assigned to Performance Audit Methodology and Training project in Pakistan
Responsible for:
- developing a methodology for performance audit of irrigation projects
 - preparing guidelines
 - giving a two-week course on techniques of performance evaluation in irrigation projects to senior staff of the Auditor General of Pakistan.

EXPERIENCE RECORD of TAYLOR, John Colin

Nationality: British

Date of Birth: 27 January 1945

Qualifications: Assoc. Field Engineering, National College of
Agricultural Engineering, Silsoe, UK, 1967

M.S. (Soil and Water Engineering), Iowa State
University, USA, 1970
Thesis entitled: "An Evaluation of the Universal
Soil Loss Equation for Predicting Watershed
Sediment Yield"

Ph.D. (Soil Physics), Iowa State University,
USA, 1973
Dissertation entitled: "Gully Bank Erosion:
Mechanics and Simulation by Digital Computer"

Professional Affiliation:

Member of the Institution of Agricultural
Engineers

Languages: English (native)
Portuguese, Spanish, French

Professional Experience:-

1967 - 1972 Iowa State University, USA
Teaching and Research Assistant

Teaching activities in soil and water
conservation engineering, surveying and land
forming. Research on mathematical modelling of
catchment sediment yield and gully erosion

1972 - 1977 National College of Agricultural Engineering
(now Silsoe College), Cranfield Institute of
Technology, UK
Lecturer

Teaching of courses in soil mechanics, land
drainage, photogrammetry, surveying and land
forming, hydrology. Research into and
preparation of report on the effects of autumn
and spring tillage practices on fine textured
soils

1977 - 1980 UNESCO/UNDP Project BRA/75/007, Instituto de
Pesquisas Hidraulicas, Porto Alegre, Brazil

Experience Record of Taylor, John Colin (continued)

(1977-1979) Responsible for teaching soil physics and agricultural hydrology. Research on agrohydrological aspects of soil management and tillage for soya production in floodplain soils in Brazil

(1979-1980) Chief Technical Adviser
In addition to teaching and research activities in agricultural hydrology, responsible for project management

1980 - date

Silsoe College, Cranfield Institute of Technology, UK
Senior Lecturer in Applied Remote Sensing

Teaching of agricultural hydrology, soil conservation, applied remote sensing, digital image processing, photogrammetry, surveying. Research on applications of remote sensing for natural resource surveying. Responsible for Ph.D. and M.Sc. thesis supervision

(1983) Coordinator of Link Programme with King Saud University

(1983-1984) Technical Manager of National Remote Sensing Centre (NRSC) Regional Facility

(1985) Member, Land Applications Working Group, NRSC
External Examiner (Ph.D. Remote Sensing), University of Aston in Birmingham

(1985-date) Convenor, Applied Remote Sensing M.Sc. programme
Head of Remote Sensing Unit and Manager NRSC Regional Facility

(1986) Member, President's Advisory Panel for postgraduate programme in Arid Zone Studies, Arabian Gulf University, Manama, Bahrain

Member, Land Applications Panel, Columbus Space Programme, British National Space Centre

Chairman, Land Applications Working Group, NRSC

Member, SERC Working Group on Applications of Remote Sensing in Civil Engineering

Experience Record of Taylor, John Colin (continued)

Member, Study Group (EEC/Joint Research Council), Applications of Remote Sensing for Agricultural Information in the EEC

Consulting Assignments:

- | | |
|-----------|---|
| 1975 | Tate & Lyle Engineering
Design of drainage experiment, Caroni Sugar Estate, Trinidad |
| 1978 | Climatological study and agricultural zoning of the Sombrio region in Santa Catarina, Brazil, FINEP Jan/1981 |
| 1981/1982 | UNESCO/UNDP Project BRA/75/007 (agricultural hydrology) |
| 1983 | Kano State Agricultural and Rural Development Authority, Nigeria
Investigation of the use of remote sensing for estimation of cropped land area in Kano State (World Bank project) |
| 1984 | Booker Agriculture International
Training programme in remote sensing/surveying, Yei, Sudan |
| | JRC-NERC
Mapping soils and vegetation and estimation of biomass in the Sahel |
| 1986 | Temple-Hazle Associates
Remote sensing of soil variation in Nigeria |
| | Nature Conservancy Council, UK
Land-use classification using Landsat imagery: pilot study on Islay, UK |
| | European Space Agency
Short course in image processing and analysis, CRIO, Burkina Faso |

Congress Papers and Presentations:

Evaluation of Physical Properties of Cultivated Layers for Comparison of Different Treatments, 7th Conference of International Soil Tillage Research Organisation, Uppsala, Sweden, 1976 (co-author)

Experience Record of Taylor, John Colin (continued)

Tecnologia e aplicacao da sonda de neutron
(Neutron probe technology and its application),
III Simposio Brasileiro de Hidrologia, Brazil,
1979 (co-author)

Porque, quando e como utilizar subsolagem (Why,
when and how to use subsoiling), Lavoura
Arrozeiro, May/June 1980, pp. 24-44 (co-author)

Agrohydrological Aspects of Soil Management and
Tillage for Soya and Maize Production in a
Planosol of the Rice Regions of Rio Grande do
Sul, 11 Congresso Bras. de Engenharia Agricola,
June 1981 (co-author)

Analise comparativa de calculo da
evapotranspiracao potencial pelo use do metodo
combinado, Anais do IV Simposio Bras. de
Recursos Hidricos, Brazil, November 1981
(co-author)

Forest Stand Mapping from Airborne MSS Data,
Thematic Mapper Simulation Seminar, NERC, UK,
1983 (co-author)

Monitoring of Vegetable Crops by Field
Radiometry, Poster Session, Remote Sensing
Society Conference, Silsoe, UK, 1983 (co-author)

Satellite Image Analysis Applied to Land Use
Identification in Northern Nigeria, Proc. Remote
Sensing Soc. Int. Conference, Remote Sensing for
Rangeland Monitoring and Management, Silsoe,
September 1983 (co-author)

User's View of Agrispine: Study Results, Remote
Sensing Soc. Meeting Agrispine '82 - An
Experiment in Time Dependent Applications of
Satellite Remote Sensing Data, Royal Aircraft
Establishment, Farnborough, UK, 1983 (co-author)

Field Radiometer Measurements for Crop Yield
Prediction, paper presented at Royal Soc. Chem.
Special Technologies Group, Imperial College,
London, February 1983

Agricultural Applications of Remote Sensing,
International Symposium on Farm Electronics and
Computing, Royal Ag. Soc. Eng., Stratford, 20-25
October 1985

Experience Record of Taylor, John Colin (continued)

Satellite Remote Sensing of Turbidity and Sediment Concentration in Lagoa dos Patos, International Seminar on Remote Sensing, Doha, Qatar, 21-25 December 1985 (co-author)

Mapping Soil and Rock Variation from Satellite Images in Arid and Semi-Arid Conditions, International Seminar on Remote Sensing, Doha, Qatar, 21-25 December 1985 (co-author)

Use of Spectral Reflectance Properties to Measure the Growth and Development of Vegetable Crops, Soc. Chem. Ind. Symposium on Factors Affecting Yield Variation, UK, 1986 (co-author)

The Use of Multitemporal Landsat Data for Improving Crop Mapping Accuracy, Int. Soc. Photogram. and Rem. Sens. Commission VII Resources Development and Environmental Management, Enschede, the Netherlands, 25-29 August 1986 (co-author)

The Influence of Resampling Method and Multitemporal Landsat Imagery on Crop Classification Accuracy in the United Kingdom, Int. Geosci. and Rem. Sens. Symp. Remote Sensing - Today's Solutions for Tomorrow's Information Needs, Zurich, 8-11 September 1986 (co-author)

Detection of Allium White Rot Infection Using a Hand-Held Radiometer, a Field Experiment (in progress; co-author)

Publications:

Soja: uma opcao para aumentar a rentabilidade das varzeas arrizeiras (Soya: an option for increasing the returns of rice floodplains), Lavoura Arrozeira, no. 316, 1979 (co-author)

Uso consumitivo da agua pela soja sob condicoes extremamente secas (Consumptive use of water by soyabeans in extremely dry conditions), Revista Brasileira de Ciencias do Solo, Vol. 4 pp. 9-13, 1980 (co-author)

Experience Record of Taylor, John Colin (continued)

Uso de sonda do neutrons para determinacao da umidade do solo no campo (Use of the neutron probe for determination of soil moisture in the field), Revista Brasileira de Ciencias do Solo, Vol. 4 pp. 57-61, 1980 (co-author)

Causas e efeitos da compactacao do solo (Causes and effects of soil compaction), Lavoura Arrozeira, no. 318, Jan/Feb 1980 (co-author)

Ocorrência de Secas em solo Vacacai (Occurrence of draught in soil Vacacai), Lavoura Arrozeira, April 1980 (co-author)

Compactacao na unidade de solo Vacacai I. (Compaction in soil Vacacai I.), Lavoura Arrozeira, March/April 1980 (co-author)

Sensores Remotos: Uma nova technica para avaliacao de recursos naturais (Remote sensing: a new technique for evaluation of natural resources), Lavoura Arrozeira, no. 324, Jan/Feb 1981 (co-author)

Influencia de desestruturacao e compactacao na permeabilidade do solo (Influence of destruction of soil structure and compaction on permeability of soil), Rev. Bras. Ci. Solo, July 1981 (co-author)

Efeito da drenagem e epoca do preparo do solo no numero de dias disponiveis para implantacao de culturas de verao (Effect of drainage and time of soil preparation on the number of days available for implantation of summer crops), Rev. Bras. Ci. Solo, July 1981 (co-author)

Drenagem das varzeas: metodo, maquinas e materiais, Lavoura Arrozeira, no. 331, Sept/Oct 1981 (co-author)

Disease, Pest and Weed Control in the Seedbed, in Crop Establishment - Biological Requirements and Engineering Solutions, M.K.V. Carr (ed.), Aspects of Applied Biol. Assoc. Appl. Biol., Vol. 7, Ch. 13, 1984

Gemstone Manual, GEMS of Cambridge, 1984 (co-author)

Experience Record of Taylor, John Colin (continued)

Investigation of the Use of Spectral Reflectance Properties of Kale as Surrogate Measurements of Crop Cover and Weight/Unit Area (article in preparation; co-author)

Mapping Vegetation and Soils and Estimation of Biomass in the Sahel (article in preparation; co-author).