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It should be addressed
to the Secretary

Phone: LUSAKA 250419, 250412, 250559, 250454

In reply please quote:

No. NCOP/10/17/69



REPUBLIC OF ZAMBIA

OFFICE OF THE PRESIDENT

NATIONAL COMMISSION FOR DEVELOPMENT PLANNING
NATIONALIST/MBITA RD
P. O. BOX 50253
LUSAKA

24th August, 1982

His Excellency the Ambassador,
Embassy of Japan,
LUSAKA.

Your Excellency,

UNIVERSITY OF ZAMBIA SCHOOL OF VETERINARY MEDICINE

We refer to our letter NCOP/8/17/16 of 13 August, 1982 regarding the above subject.

We are now in a position to submit additional detailed information regarding the proposed School of veterinary services at the University of Zambia. It is our sincere belief that you will find the additional information hereby attached very useful and we hope your Government will favourably consider our request for assistance in setting up this school.

Please accept, Your Excellency the assurances of our highest consideration.

L.S. Chivuno,
DIRECTOR-GENERAL,
NATIONAL COMMISSION FOR DEVELOPMENT PLANNING.

c.c Prof. M.J. Kelly,
Deputy Vice Chancellor,
UNZA,
LUSAKA.

UNIVERSITY OF ZAMBIA

School of Veterinary Medicine

The following are the answers to the request for information from the Embassy of Japan:

1. The Project will be implemented by the Ministry of Education and Culture which will use the University of Zambia as its executing agency
2. The School will be established at the University of Zambia, at the Great East Road Campus in Lusaka.
3. The following buildings will be required:
 - (a) Laboratory, Classroom, Specialist Rooms, Lecture Rooms and Offices for the following Departments:
Anatomy, Physiology and Biochemistry
Pathology, Parasitology and Microbiology
Medicine and Pharmacology
Surgery and Reproduction
Preventive Medicine and Food Hygiene

The buildings for the above Departments will cover 7467 square metres. The cost of these buildings at current prices and including professional fees will be K5,460,000. Furniture will cost an additional K546,000 so that the total cost of the academic buildings will be K6,006,000.
 - (b) Accommodation units for demonstration, experimental and quarantined animals.

The buildings for these units will cover 1110 square metres and will cost K277,500.
 - (c) Scientific equipment for the laboratories and specialist rooms of the academic buildings. This includes a provision for books and periodicals as the nucleus of a veterinary library. The total cost will be K2,880,000 (as per the accompanying list).
 - (d) Transport for use by the School for academic purposes (1 Bus, 2 Landrovers, 1 Animal Transport Vehicle, 2 Mobil Clinics, 1 Van) at a cost of K205,000.
 - (e) Hostel accommodation, consisting of shared study-bedrooms, for 290 students. This will consist of six blocks, each accommodating 48 students. The cost per block (including necessary furnishings) will be K250,000. The total cost will be K1,500,000.

- (f) Housing accommodation for 39 academic and 13 senior technical staff; that is 52 housing units @ K60,000 for each unit, (including furnishing):
K3,120,000 ✓

The total cost of the project will be K13,988,500 made up as follows:

	K
Academic Buildings	6,006,000
Animal Units	277,500 ✓
Equipment	2,880,000
Transport	205,000
Student Hostels	1,500,000 ✓
Staff Housing	3,120,000 ✓
	<u>13,988,500</u> ✓

4. Financial assistance was requested from the European Development Fund when the project (in a larger form) was conceived of as responding to regional requirements. In its present form the project has not been placed before other potential donors for capital funding. Some countries have, however, expressed interest in assisting the project by staffing (technical experts) once it has commenced, and a submission in this direction is being prepared for the United Nations Development Programme.
5. The School of Veterinary Medicine will need 39 academic staff and 13 senior technical staff, in the following fields:

	<u>Academic</u>	<u>Senior Technical</u>
Zoology and <u>Ecology</u>	1	-
Anatomy, History, and <u>Embryology</u>	3	1
Physiology	2	1
Biochemistry	2	1
Biometrics	1	-
Animal Husbandry	3	1
Animal Hygiene	1	-
Animal Pathology/Pathology	3	1
Animal Nutrition	2	-
Microbiology	2	1
Parasitology	2	1
Pharmacology	2	1

3/.....

	<u>Academic</u>	<u>Senior Technical</u>
Medicine and Surgery	5	1
Animal Reproduction	2	1
Epizootiology	2	-
Food Hygiene	2	1
Infectious Diseases	2	1
Parasitic Diseases	2	1
	<u>39</u>	<u>13</u>

These experts will be sought internationally. It is hoped that some of them may come from Japan.

6. There are 85 veterinarians in Zambia of whom 8 are Zambians. Thirty-nine are employed directly by the Department of Veterinary Services and Tsetse Control and forty-six are employed by parastatals, international agencies (including the F A O) and the private sector. This is the actual situation. However, in view of the needs and of the potential for livestock development the projected need for 1990 is for more than 300 persons with professional qualifications in veterinary medicine.

7. Zambia proposes to allocate the following amounts to the School of Veterinary Medicine:

	<u>1983</u>	<u>1984</u>	<u>1985</u>	<u>1986</u>
Running Costs	240,000	570,000	970,000	1,320,000
Capital Costs	<u>500,000</u>	<u>500,000</u>	<u>500,000</u>	<u>500,000</u>
	740,000	1,070,000	1,470,000	1,820,000

	<u>1987</u>	<u>1988</u>	<u>1989</u>
Running Costs	1,650,000	1,800,000	1,820,000
Capital Costs	<u>500,000</u>	<u>250,000</u>	<u>250,000</u>
	2,150,000	2,050,000	2,070,000

Running Costs will be incurred as early as 1983 since because of the urgent needs the programme will be commenced in interim facilities in 1983.

The Zambian capital contribution (totalling K3,500,000) will be used to provide (a) the necessary interim facilities for the first years of the programme; (b) the animal accommodation units (K277,500); (c) some of the hostel and housing facilities needed.

In 1982, Zambia has allocated K500,000 to this project. This sum is being used to provide (a) interim facilities that will enable the programme to start in 1983 (when the definitive facilities are provided these interim facilities will be used for teaching the first year introductory sciences needed for the School);

(b) architectural services for the planning and design of the School. Work on the preparation of an overall design is in an advanced stage of development. The preliminary sketch design will be completed in October 1982. The consulting architect for this work has been engaged directly by the University.

8. Although the Embassy of Japan did not request it, the following additional information is provided:

(a) the School will have a target enrolment of 36 undergraduates per year, but is planned to cope with up to 45 a year, or a total of 270;

(b) the School will also enrol postgraduate students (up to 20 being registered at any one time);

(c) discussions are being held with the Department of Veterinary Services and Veterinary Control about the desirability of using the facilities of the School to run a diploma programme, so as to upgrade veterinary field workers, and to provide para-veterinary training in such fields as entomology, parasitology, artificial insemination and reproduction.

(d) the degree programme will last 6 years. The first year will be spent in a common first year programme in Physics, Biology, Chemistry and Mathematics. The remaining five years will be spent on professional studies in the School of Veterinary Medicine.

(e) long vacations between years will be spent on field practicals, at abattoirs, in animal clinics and in veterinary diagnostic laboratories.

- (f) A phased development of the School (and of the related hostel and housing facilities) would be desirable, with the work extended over a three or four year period, beginning from the middle of 1983.

M J Kelly
DEPUTY VICE-CHANCELLOR

18th August 1982

Questionnaire

1. General matters concern to the Univ. of Zambia

- 1) Structure of schools at the Univ.
 - a) Number of staff at each school
 - b) Number of enrolled students (Zambians and foreigners)
- 2) Number of graduate schools at the Univ. and names of schools
- 3) Budget for the Univ.
 - a) Budget system to be set for the Univ. (from Ministry of Education or Ministry of Finance directly)
 - b) Whether its budget for the Univ as a whole or for each school individually
- 4) Qualification of entrance applicants
- 5) Qualification to be assigned at post; professor, assistant prof. and instructor
- 6) Working conditions for the staff (payment, allowance, etc.)
- 7) Foreign aid for schools at the Univ.

2. Plan for the establishment of school of Veterinary Medicine.

- 1) Purposes of newly established school of V.M.
- 2) Ordinance and regulation for a new establishment of school (procedure according to Zambian system)
- 3) Circumstances for the establishment at present
 - a) Whether Japanese financial aid is indispensable premis for the establishment
- 4) Whether the plan is operated by the Univ. or Ministry of Education. (Either one has leadership for the plan), and which organisation will have a responsibility for the implementation of detailed engineering services and construction works of facilities.

3. Questions refer to the letter dated on 24th Aug., 1982 from the National Commission for Development Planning

- 1) Concerning to the answer 2, who is the owner of the land of the construction site and how large is the land

Concerning to the answer 3, designs and layouts for each facilities of a) b) c) e) and f) to be done.

- 2) Concerning to the answer 4

- a) Description of "European Development Fund"
- b) Foreign countries being interested in the proposal

- 3) Concerning to the answer 5

- a) Status of "Academic" and "Technical" (Professor, Assist. Prof., lecturer, Instructor, etc)
- b) Employment of "Academic staff" in Zambia or from out of Zambia
- c) Number of Administrative staff of the school

- 4) Concerning to the answer 7

- a) Selections of the facilities of a) - f) in the answer 3, which are cost by Capital cost or foreign financial aid.
- b) Main items of expenditure in Running Cost

- 5) Concerning to the answer 8

- a) Basical reasons to make decision of the target enrolment 36
- b) What qualification to be given for a graduate (M.Sc., B.Sc., Degree, Diploma, Certificate etc.)

- 6) Concerning to the overall

Detailed information regarding the contents of the project, namely, the relationship between activities, personnel facilities and equipment

4. Questions to National Commission for Development Planning

- 1) Priority of the plan for establishment of school V.M.

5. Question to be answered by Ministry of Education and Culture

- 1) Organisation chart of Ministry of Education and Culture
- 2) Number of the staff in each section (total, sections; etc)
- 3) Number of students to study in foreign countries
- 4) Ratio of the above mentioned student by each school

6. Question to be answered by the Ministry of Works and Supply

- 1) Construction and Design Code of Zambia
- 2) Design Standard of the Public Buildings

Documents

1. Budget Book, Budget Estimates of the Univ., yearly budget of each school
2. Curriculum of school of Agriculture
3. Summary of the Univ. of Zambia
4. Ordinance, law, regulation concerning to the establishment of new school
5. A bylaw of the Univ. of Zambia
6. Organisation Chart of Ministry of Education and Culuture

CIRCULATION RESTRICTED

THE UNIVERSITY OF ZAMBIA
Office of the Vice-Chancellor

Response to Questionnaire by Japanese
Pre-Survey Team (Veterinary School)

A. GENERAL MATTERS CONCERNING THE UNIVERSITY OF ZAMBIA1. Structure of Schools

School	Number of Staff	Number of Students
• Agricultural Sciences	36 (3)	177
• Architecture & Planning	3 (-)	46
• Business & Industrial Studies	20 (5)	389
• Centre for Continuing Education	28 (19)	42
• Education	87 (36)	1076
• Engineering	46 (9)	246
• Humanities & Social Sciences	65 (18)	862
• Law	21 (12)	190
• Medicine	71 (10)	243
• Mines	25 (4)	181
• Natural Sciences	61 (11)	622
• Educational Research Bureau	7 (1)	-
• Institute for African Studies	14 (3)	-
• Institute for Human Relations	3 (1)	-
• Rural Development Studies Bureau	7 (-)	-

- Notes: (i) Numbers in brackets indicate number of Zambians in post. Many are still being trained.
- (ii) About 5% of the students are non-Zambians. These are to be found mainly in the Schools of Medicine, Natural Sciences and Engineering.
- (iii) The student numbers relate to 1981 and the first part of 1982. Figures for 1982/83 are not yet known.

2. Graduate Studies

School	Number of Students
School of Education (M.A)	29
School of Humanities and Social Sciences	28
School of Law(LLM)	-

<u>School</u>	<u>Number of Students</u>
Post-graduate Diploma in International Law	4
School of Mines	1
School of Medicine (M Ed)	12
School of Natural Sciences (M Sc)	12
School of Natural Sciences (Ph D)	2

- Notes: (i) The Master's degrees are of two years' duration.
- (ii) It is expected that in 1983 post-graduate programmes will commence in mining, engineering, environmental engineering, industrial psychology and political sciences.
- (iii) Most students wishing to do a Ph D have to go abroad because of staffing problems and lack of specialised equipment and library facilities.

3. Budget for the University

- (a) The Government funds the University through the Ministry of Education.
- (b) The Government subvention is for the University as whole. The annual budget is about K28 million.

4. Entrance Requirements

A minimum of five passes at the 'O' level is required for admission to the University. Individual Schools may have their own additional requirements. For example, a strong pass in Mathematics is required for entry into Natural Science-based disciplines.

5. Qualifications for Academic Staff

<u>Position</u>	<u>Qualifications Required</u>
(a) Professor/Associate Professor	(i) PhD or equivalent (ii) distinguished research and teaching record (iii) some administrative ability and ripeness of judgement (iv) ability to supervise research students
(b) Senior Lecturer	(i) PhD or equivalent (ii) Research and teaching experience.
(c) Lecturer	Master's degree (for appointment to the lowest level). PhD or relevant experience for appointment to higher levels.

Salary Scales (K per annum)

Professor	13,000 - 15,600 (2,500)
Associate Professor	12,060 - 13,500 (2,000)
Senior Lecturer	10,080 - 12,000 (1,500)
Lecturer I	9,600 - 11,040 (1,200)
Lecturer II	7,980 - 9,180 (1,000)
Lecturer III	7,162 - 7,776 (800)

- Notes: (i) The figures in brackets indicate non-practice allowances paid to professionally qualified staff in the Schools of Architecture and Law.
- (ii) The allowances for staff in Medicine is K3,600 plus K1,200 for those with clinical responsibilities.
- (iii) For all staff, other benefits include subsidised housing with furniture and leave passages every two years (90 days' leave).
- (iv) Staff have an average of 10 contact hours per week.
- (v) Grants are available to staff wishing to carry out research.

6. Covered in 5.

7. Foreign Aid to the University(1981-82)

<u>Donor</u>	<u>Purpose</u>	<u>Amount(K)</u>
SIDA	Personnel, Equipment, Furniture, Books (for Land Surveying)	1,277,000 (1982-85)
Japan International Co-operation Agency	Medical equipment and instruments for Paediatrics, School of Medicine	300,000
Beit Trust	Rehabilitation of Medical laboratories after destruction by fire	105,000
CIDA	School of Agriculture, Dairy Project	115,000
Irish Government	School of Agriculture, equipment	20,000
British Government	School of Engineering, equipment	20,000
Irish Government	School of Engineering, equipment	20,000

<u>Donor</u>	<u>Purpose</u>	<u>Amount (K)</u>
Financing System for Science & Technology (UN)	Upgrading of School-leavers	US\$794,000
Various Agencies*	Research	366,000

In addition, the University receives foreign aid in the following forms:

- (a) Sponsored staff positions
- (b) Salary supplementation
- (c) Donations of books, etc
- (d) Support for staff exchanges
- (e) Scholarships

* These include the United Nations University, ICL, UNESCO, SAREC (Sweden), SWEDISH EMBASSY, UNICEF, UNHCR, Rockefeller Foundation, WHO, Ford Foundation, Pfizer (Nairobi Ltd), Wellcome Trust, NUFFIC (Dutch), International Foundation for Science (IFS, Sweden), IDRC.

B. PLAN FOR THE ESTABLISHMENT OF VETERINARY MEDICINE

1. Purpose. To meet Zambia's requirements for veterinarians. Applicants from other countries especially those in the region will also be considered for admission.
2. The University of Zambia Act (1979) provides for the establishment of such new schools as Senate may decide.
3. Because of the costs involved, external aid is important. However, even if this is not forthcoming, the government has made a firm commitment to go ahead.
4. The project will be implemented by the Ministry of Higher Education which will use the University as its executing agency.

The intention is that local architectural and construction services be used as much as possible. There might be variations here depending on particular circumstances.


B Mweene
ACTING DEPT VICE-CHANCELLOR

November 4, 1982

THE UNIVERSITY OF ZAMBIA

(II)

POSSIBLE MODE OF ASSISTANCE REQUESTED FROM THE JAPANESE GOVERNMENT
IN CONNECTION WITH THE ESTABLISHMENT OF THE SCHOOL OF VETERINARY
MEDICINE AT THE UNIVERSITY OF ZAMBIA.

Subsequent to the meeting held on 4th November, 1982 in the office of the University Architect with the Japanese Survey Team for the establishment of the School of Veterinary Medicine at the University of Zambia, Lusaka, the University of Zambia Team would like to submit the following proposals to the Japanese Survey Team in connection with assistance requested from the Japanese Government through the National Commission for Development Planning:

1. GRANT AID ASSISTANCE TO COMPRISE THE FOLLOWING:
 - a) Construction of the entire School of Veterinary Medicine as detailed in the brief prepared for the University of Zambia by Messrs Ehard Lorenz & Associates.
 - b) Provision of capital equipment. Actual items to be included in this component would be agreed upon by the two parties.

2. TECHNICAL CO-OPERATION:
 - a) Provision of specialist laboratory equipment.
 - b) Provision of Experts under the following headings:
 - i) Technical personnel, especially Instrument engineers and chief Technicians to supervise installation, running and maintenance of the items under (a) above in selected fields if possible.

- ii) Training of Zambians counterpart technical personnel locally and in Japan on short-term basis.
- (- iii) Teaching Staff in selected fields if possible.

We hope it will be possible for the Japanese Government to consider favourably the two proposals. However, if it is not possible to consider both proposals, we suggest that the first item be the one to be considered. We look forward to fruitful discussions.

4th November, 1982.

School of Veterinary Medicine

(E)

Staffing

Appointments to be made 1983-1989

<u>1983</u>	Dean : 1 Zoology & Ecology: SL+ST+T Anatomy: P & SL+CT+ST Biochemistry: P + T Biometrics: L Physiology: P + CT + ST	8 Lab Att 2 An Att	Admin. Off. 2 Typists 2 Secret/Stenog 1 Messenger
<u>1984</u>	Anatomy, Histol & Embryol: L+L Physiology SL+L Animal Husbandry P+SL+L+CT+ST Animal Hygiene L+ST+T Animal Pathology P+CT Animal Nutrition & Dietetics SL+L+ST+T		Admin Asst Dean 1 Typist 1 Secr/Stenog 1 Dupl. Op. 1 Driver 1 Cleaner 1 Security Guard
<u>1985</u>	Pathology SL+L+T Microbiol & Immunol P+L+CT+ST+T Parasitol & Entomol P+L+CT+ST+T Pharmacol & Toxicol SL+ST Medicine & Surgery P+L+CT+ST+T Animal Husbandry L	4 Lab Att 2 An Att 1 Cleaner	1 Secr/Stenog 2 Typists
<u>1986</u>	Medicine & Surgery SL+L Animal Reproduction P+L+ST+CT Epidemiology P+ST Food Hygiene P+L+CT+ST+T Microbiol & Immunol SL Parasitol & Entomol SL Pharmacol & Toxicol L+T	4 Lab Att 1 An Att	1 Admin Off 1 Secr/Stenog 1 Typist
<u>1987</u>	Medicine & Surgery SL+L Animal Reproduction SL+T Infectious Diseases SL+ST Parasitic Diseases SL+ST Vet. Organisation L + T Epidemiology L + T		
<u>1988</u>	Infectious Diseases L + T Parasitic Diseases L + T		2 Security Guards
<u>1989</u>	2 Security Guards		

NOTES.

- (i) Advertisements for the recruitment of the Dean and one Professor have already been sent to the newspapers and should be out this week or early next week. It is hoped that the two posts will be filled by January/February 1983.
- (ii) P = Professor; SL = Senior Lecturer; CT = Chief Technician; ST = Senior Technician and T = Technician.

TV

THE UNIVERSITY OF ZAMBIA

LIST OF REGISTERED POSTGRADUATE STUDENTS: 1981/82

1. School of Education

<u>Name</u>	<u>Type of Programme</u>	<u>Year of first Registration</u>	<u>Full-time/Part-time</u>	<u>Sponsorship</u>
E.C. Chibalo*	H.A. Afr.Lit.	1980	Full-time	GRZ
E.M. Munalula*	H.A. Liter.	1980	Full-time	GRZ
E. Kwiinga	H.A. Lit.&Lan.	1980	Part-time	GRZ
T.V.C. Sumaili*	H.A. Afr.Lit.	1980	Full-time	GRZ
A. Ginwalla**	H.A. Afr.Lit.	1980	Full-time	GRZ
C.H. Kubinda	H.A. Geog.	1979	Full-time	UNZA/SIF
P. H. Manda	H.A. Geog.	1979	Full-time	GRZ
G.P.A. Danda	H.A. Geog.	1980	Full-time	UNZA/SDF
H.M. Kapande	H.A. Geog.	1980	Full-time	UNZA/SIF
C. N. Mulenga*	H.A. Geog.	1980	Full-time	GRZ
H.N. Sichingabula	H.A. Geog.	1980	Full-time	UNZA/SDF
K.S. Sililo	H.A. Geog.	1980	Full-time	UNZA/SDF
S.N. Sinkala	H.A. Geog.	1980	Full-time	UNZA/SDF
Nkejwa Kamayoyo	H.A. Hist.	1975	Part-time	SELF
Choolwe Beyeni	H.A. Hist.	1978	Full-time	UNZA/SDF
Y. N. Seleti	H.A. Hist.	1979	Full-time	UNZA/SDF
L. H. Zgombo	H.A. Hist.	1979	Full-time	GRZ/CHA
L. G. Mshala	H.A. Hist.	1980	Full-time	UNZA/SDF
G. N. Kwalukanga*	H.A. Hist.	1980	Full-time	GRZ
B. K. Phiri	H.A. Hist.	1980	Full-time	UNZA/SDF
Ignatio Mwalya	H.Ed.	1980	Full-time	GRZ
S. R. Chomba*	H.ED.	1980	Full-time	GRZ
L. H. Chizinga	H.ED.	1980	Full-time	UNZA/SDF
J. C. Mulenga	H.ED.	1980	Full-time	GRZ
M. W. Njobe	H.ED.	1981	Full-time	WUS
V. C. Ndondo*	H.ED.	1981	Full-time	GRZ
P. B. Phiri**	H.ED.	1981	Full-time	GRZ
A. C. Shinina*	H.A. Geog.	1981	Full-time	GRZ

2. School of Humanities and Social Sciences

W.C.M.C. Chitalu*	H.A. Economics	1981	Full-time	UNZA/SELF
H. S. Dasi	H.A. Economics	1980	Part-time	SELF
D. H. Kalyalya*	H.A. Economics	1980	Full-time	UNZA
N. Khonje*	H.A. Economics	1980	Full-time	Private
M. S. Mbongwa*	H.A. Economics	1980	Full-time	Private
C. G. Mudenda*	H.A. Economics	1980	Full-time	GTA/SELF
O. K. Mutale	H.A. Economics	1980	Full-time	Private
J. S. Chinbwayinga**	H.A. Economics	1981	Full-time	UNZA/SELF
V. K. Lubasi	H.A. Economics	1981	Part-time	SIDA
J. M. K. Mshanga**	H.A. Economics	1981	Full-time	UNZA/SELF
N. Mulivana**	H.A. Economics	1981	Full-time	UNZA/SELF
A. Mwenda	H.A. Economics	1981	Full-time	UNZA/SIF
E. C. Mwikisa	H.A. Economics	1981	Full-time	UNZA/SDF
W. Vake**	H.A. Economics	1981	Full-time	UNZA/SELF

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2. School of Humanities and Social Sciences Contd.

<u>Name</u>	<u>Type of Programme</u>	<u>Year of first Registration</u>	<u>Full-time/ Part-time</u>	<u>Sponsorship</u>
P. Das Gupta*	M.A. Ed. Psy.	1980	Full-time	GTA/SELF
M. MacFarlane*	M.A. Ed. Psy.	1980	Full-time	GRZ
E. L. Makubalo*	M.A. Psy.	1980	Full-time	GTA/SELF
E. H. J. Ngulube*	M.A. Ed. Psy.	1980	Full-time	GRZ
A. Kapungwe	M.A. Sociology	1980	Full-time	UNZA/SDF
E. Nyambe	M.A. Sociology	1980	Full-time	GRZ
G. H. S. Soko	M.A. Sociology	1980	Part-time	Private
V. Musakanya	M.A. Sociology	1980	Full-time	UNZA/SDF
P. Sabet	M.A. Sociology	1980	Part-time	SELF
E. H. Beuter**	M.A. Sociology	1981	Part-time	FRG
H. Chirwa*	M.A. Sociology	1981	Full-time	GTA/SELF
H. M. Kapwepwe	M.A. Sociology	1981	Full-time	UNZA/SDF
P. K. Siame	M.A. Sociology	1981	Full-time	UNZA/SDF
A. P. Kulenga	M.A. Social Work	1981	Full-time	UNZA/SDF

3. School of Law

N. S. Chansa	Diploma	1981	Full-time	GRZ
J. L. Nasilele	Diploma	1981	Full-time	GRZ
	Diploma	1981	Full-time	GRZ
S. Sikota	Diploma	1981	Full-time	GRZ
D. A. Lilola	LL.B.	1981	Full-time	UNZA/SDF
G. C. Nulyata	LL.B.	1981	Full-time	R.D.C.
P. S. Kungole*	LL.B.	1981	Full-time	Z.P.
A. K. Musanya	LL.B.	1981	Part-time	GRA
K. H. Simbyakula	LL.B.	1981	Full-time	UNZA/SDF
M. Thazhath Veedu	LL.B.	1981	Part-time	

4. School of Medicine

Y. Dhura	M.Med.	1981	Part-time	SELF
K. K. Like	M.Med.	1981	Full-time	GRZ/SELF
H. S. Kulenga	M.Med.	1981	Part-time	GRZ
M. J. Muyangama	M.Med.	1981	Part-time	GRZ
J. S. Patel	M. Med.	1981	Part-time	SELF
S. D. Patel	M.Med.	1981	Part-time	SELF
A. K. Varma	M.Med.	1981	Part-time	SELF

5. School of Natural Sciences

<u>Name</u>	<u>Type of Programme</u>	<u>Year of first Registration</u>	<u>Full-time/ Part-time</u>	<u>Sponsorship</u>
Martha Leonge*	B.Sc. Chemistry	1980	Full-time	CCA/SELF
A. N. Haiinga*	B.Sc. Chemistry	1981	Full-time	GRZ
H. Mubyana*	B.Sc. Maths	1981	Full-time	GRZ
H. H. Kaluwa*	B.Sc. Maths	1981	Full-time	GRZ
Y. Mumbula**	B.Sc. Maths	1981	Full-time	GRZ

- * Resident at Marshlands
- ** Taking meals from Marshlands - resident outside UNZA
- *** Exchange student from University of Konstanz - resident at Marshlands

S. H. Longwe
Sara H. Longwe (Ms)
RESEARCH SECRETARY

16th December, 1981

Distribution: Vice-Chancellor
Chairman - Senate Graduate Studies Committee
University Secretary
Principals
Asst. Registrar (Admissions)
Deans/Directors
Heads of Departments concerned
Information/Public Relations Officer
Dean of Students
Students Finance Office
Staff Stud. Office

School of Veterinary Medicine

Development 1983-1989

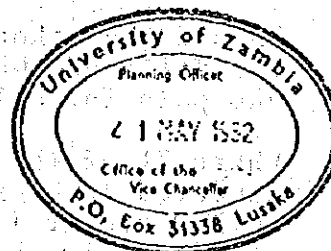
<u>Staffing</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>	<u>1986</u>	<u>1987</u>	<u>1988</u>	<u>1989</u>
Academic	7	10	20	30	45	47	47
Technical	16	23	40	52	57	59	59
Admin/Secr.	5	8	11	15	18	18	18
Other	1	5	6	9	11	17	19
	<u>29</u>	<u>54</u>	<u>85</u>	<u>114</u>	<u>131</u>	<u>141</u>	<u>143</u>
<u>Students</u>	20	59	114	165	245	249	269
<u>Student-Staff Ratio</u>	3/1	3/1	4/1	4 1/2/1	5/1	5/1	6/1

Comparison figures

	<u>Estimates</u>	<u>Total Staff</u>	<u>Students</u>	<u>Student Staff Rate</u>	<u>Cost per Student</u>
Agricultural Sciences*	556,599	74 (23)	177	7-6/1	K3145
Medicine*	1,467,535	146 (69)	255	3.6/1	K5755
Natural Sciences*	1,694,627	152 (76)	622	8.1/1	K2725
Veterinary Medicine**	1,814,675	143 (47)	269	5.7/1	K6746

*Figures for Agricultural Sciences, Medicine and Natural Sciences are 1981 figures. The estimates are based on the 1981 salary scales for academic and all other staff

**Figures for Veterinary Medicine are 1989 figures when the School will have attained its ultimate size. The estimates are based on the proposed new (1982) salaries.



THE UNIVERSITY OF ZAMBIA

Planning Office

DEVELOPMENT OF THE SCHOOL OF MINES

Background

1. Details of the historical development of the School of Mines are contained in the attached paper dated 17th July, 1973 prepared by the School itself. Attached is also the School's "Development Programme (1976-81)" dated March 1976.
2. For this exercise the salient points can be summarised as follows:

- (i) The School started operating (in temporary buildings - part of Phase I of the School of Engineering) in June 1973.
- (ii) Permanent buildings (Phase I) were completed in February 1977 at a total cost of approximately K1,250,000.

Funds for building the new School came from the Swedish International Development Authority (SIDA). Altogether SIDA gave the University a grant of K3.5 million which was spent as follows:

(a) Buildings	K1,250,000
(b) Student Hostels	750,000
(c) Equipment	570,000
(d) Exchange with the University of Lulea	780,000
	<hr/> K3,350,000

Indeed the School cost more than the above figure; the difference was provided by the Zambian Government who paid for all the fees and furniture.

- (iii) Phase II of the School (now under construction and expected to be handed over to the University by 20th December 1982) will cost K1,190,333-00. Of this sum SIDA has again generously given us a grant of K700,000; the balance of K490,333-00 has come from the University/Government of Zambia. Any additional costs will be borne by the University. We have also included in our 1983 Capital Estimates a sum of K350,000 for furniture and equipment.

3. Statistics

Student enrolment 1981/1982 academic year	181
Teaching staff (excluding technical staff)	25

Graduates in the School (1974-1981) 109
Graduates during 1981/82 is tentatively 30 but this figure is expected to go up when the results of those who sat for supplementary examinations are known in the next two weeks.

The budget for the School during the 1981/82 academic year is K476,155 while that for the 1982/83 academic year is expected to be K508,813.

4. Although the School is relatively young the African Network of Scientific and Technological Institutions (ANSTI) together with the Southern African Development Coordinating Conference (SADCC) have been so impressed by its programmes that they have designated the School as a Regional Centre for postgraduate studies in the fields of Metallurgy, Geology and Mining Engineering. Accordingly, the School is preparing to begin postgraduate programmes in Metallurgy in 1982/83 academic year.
5. With the completion of Phase II of the School's physical facilities the commencement of postgraduate studies is now a reality. The School is therefore working very hard to finalise the programme of study leading to the Master's degree level which will be implemented in 1983/84 academic year. The recruitment of staff for this exercise has already started.

R C Mulenga
PLANNING OFFICER

5 November 1982

School of Veterinary Medicine
Indicative Recurrent Estimates

1983 - 1989

	<u>1983</u>	<u>1984</u>	<u>1985</u>	<u>1986</u>
<u>Personnel</u>				
Academic	129,400	322,000	562,800	785,800
Technical	61,640	148,720	256,800	344,355
Admin & Secret.	23,965	44,435	64,735	92,745
Miscellaneous	1,215	14,310	16,605	24,705
	<u>216,220</u>	<u>529,465</u>	<u>900,940</u>	<u>1,247,605</u>
<u>Other costs</u>	<u>16,390</u>	<u>36,910</u>	<u>66,760</u>	<u>71,710</u>
	<u>232,610</u>	<u>566,375</u>	<u>967,700</u>	<u>1,319,315</u>

	<u>1987</u>	<u>1988</u>	<u>1989</u>
<u>Personnel</u>			
Academic	967,900	1,057,100	1,075,700
Technical	417,840	432,315	438,555
Admin & Secr	111,985	121,095	121,095
Miscellaneous	31,455	46,845	53,055
	<u>1,529,185</u>	<u>1,657,355</u>	<u>1,688,405</u>
<u>Other Costs</u>	<u>116,270</u>	<u>126,270</u>	<u>126,270</u>
	<u>1,645,455</u>	<u>1,783,625</u>	<u>1,814,675</u>

Note: The estimates are built up on the assumption that the University of Zambia bears all the personnel costs. There will be reductions according to the number of staff whose services are secured under technical assistance arrangements.

School of Veterinary Medicine

Emoluments 1983-1989

	1983		1984		1985	
<u>Basic P.P.</u>						
Academic						
Dean	1	19,200	1	19,200	1	19,200
Prof/As. Prof	3*	24,000	3+2*	64,000	5+3*	104,000
Snr Lect/Lect	3*	18,000	3+5*	90,000	12+7*	186,000
Allowances		<u>61,200</u>		<u>173,200</u>		<u>309,200</u>
		14,400		45,000		82,800
		<u>75,600</u>		<u>218,200</u>		<u>392,000</u>
<u>Technical</u>						
Chief/Snr Tech	4*	15,800	4+5*	51,350	9+7*	98,750
Technician	2*	4,800	2+2*	14,400	4+4*	28,800
Lab Asst/ An Asst	10*	<u>10,500</u>	10	<u>21,000</u>	10+6*	<u>27,300</u>
		<u>31,100</u>		<u>85,750</u>		<u>154,850</u>
<u>Administrative-Secretarial</u>						
Admin Asst.		-	1*	3,600	1	7,200
Snr Ad. Off		-		-		-
Admin Off	1	5,500	1	5,500	1	5,500
Secr/Stenog	1+1*	<u>8,250</u>	2+1*	<u>13,750</u>	3+1*	<u>19,250</u>
		<u>17,750</u>		<u>32,850</u>		<u>47,950</u>
<u>Other</u>						
Duplicator Op.		-	1	2,300		2,300
Messenger	1*	900		1,800	1	1,800
Switchboard Op		-		-		-
Driver		-	1	2,500	1	2,500
Cleaner		-	1	<u>1,700</u>	2	<u>3,400</u>
		900		<u>8,300</u>		<u>10,000</u>
Security Guard		-	1	<u>2,300</u>	1	<u>2,300</u>
		<u>900</u>		<u>10,600</u>		<u>12,300</u>

	1986	1987	1988	1989
Dean	1	1	1	1
	19,200	19,200	19,200	19,200
Pr/As Prof	8+3*	11	11	11
	152,000	176,000	176,000	176,000
Snr/Lect	19+7*	26+7*	33+2*	35
	270,000	354,000	408,000	420,000
Allowances				
	441,200	549,200	603,200	615,200
	118,800	149,400	165,600	169,200
	<u>560,000</u>	<u>698,600</u>	<u>768,800</u>	<u>784,400</u>
Chief/Snr Tech	16+5*	21+2*	23	23
Tech	8+2*	10+3*	13+2*	15
Lab/An Asst	16.5*	21	21	21
	146,150	173,800	181,700	181,700
	43,200	55,200	67,200	72,000
	38,850	44,100	44,100	44,100
	<u>228,200</u>	<u>273,100</u>	<u>293,000</u>	<u>257,800</u>
Admin Asst	1	1	1	1
SAD	1	1	1	1
AD	1+1	2	2	2
Secr/Sten	4+1*	5+1*	6	5
Typist	5+1*	6+2*	6	8
	7,200	7,200	7,200	7,200
	6,500	6,500	6,500	6,500
	8,250	11,000	11,000	11,000
	24,750	50,250	33,000	33,000
	22,000	25,000	32,000	32,000
	<u>68,700</u>	<u>82,950</u>	<u>89,700</u>	<u>89,700</u>
Dupl Op	1	1	1	1
Mess	1+1	2	2	2
S'b Op	-	1	1	1
Driver	1+1	2+1	3	3
Cleaner	2+1	3	7	7
Sec Guard	1	1	3	5
	2,300	2,300	2,300	2,300
	3,600	3,600	3,600	3,600
	5,000	7,500	7,500	7,500
	5,100	5,100	11,900	11,900
	2,300	2,300	6,900	11,500
	<u>18,300</u>	<u>23,300</u>	<u>34,700</u>	<u>39,300</u>

* Salary for 6 months Only.

School of Veterinary Medicine

Personnel Costs 1983-1989

<u>Academic</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>
Emoluments	75,600	218,200	392,000
Gratuity (25%)	15,300	43,300	77,300
Fares (4000 p p)	28,000	44,000	68,000
Baggage (1500 p p)	10,500	16,500	25,500
	<u>129,400</u>	<u>322,000</u>	<u>562,900</u>
<u>Technical</u>			
Emoluments	31,100	86,750	154,850
Gratuity (25%)	3,950	12,050	24,700
Supern (10%)	1,550	3,540	5,610
Fares (4000 p p)	16,000	28,000	44,000
Baggage (1500 p p)	6,000	10,500	16,500
Housing (20%)	3,050	7,000	11,220
	<u>61,650</u>	<u>143,720</u>	<u>256,830</u>
<u>Administrative</u>			
Emoluments	17,750	32,050	47,950
Supern (10%)	1,775	3,265	4,795
Transport (5%)	850	1,640	2,400
Housing (20%)	3,550	6,570	9,590
	<u>23,965</u>	<u>44,345</u>	<u>64,735</u>
<u>Other</u>			
Emoluments	900	10,600	12,300
Supern (10%)	90	1,060	1,230
Transport (5%)	45	530	615
Housing (20%)	180	2,120	2,460
	<u>1,215</u>	<u>14,310</u>	<u>16,605</u>

	<u>1986</u>	<u>1987</u>	<u>1988</u>	<u>1989</u>
<u>Academic</u>				
<u>Emoluments</u>	560,039	598,009	768,000	784,400
Gratuity	110,300	137,300	150,000	153,600
Fare	04,000	96,000	100,000	100,000
Baggage	31,500	35,000	37,500	37,500
	<u>785,800</u>	<u>967,900</u>	<u>1,057,100</u>	<u>1,075,700</u>
<u>Technical</u>				
<u>Emoluments</u>	220,200	273,100	293,000	297,600
Gratuity	36,540	43,450	45,525	45,425
Superann	8,205	9,930	11,130	11,610
Fares	40,000	52,000	44,000	44,000
Baggage	15,000	19,500	16,500	16,500
Housing	16,410	19,960	22,250	23,220
	<u>344,355</u>	<u>417,840</u>	<u>432,315</u>	<u>438,555</u>
<u>Administrative</u>				
<u>Emoluments</u>	60,700	82,950	89,700	89,700
Superann	6,970	8,235	8,970	8,970
Transport	3,435	4,150	4,485	4,485
Housing	13,740	16,590	17,940	17,940
	<u>92,745</u>	<u>111,985</u>	<u>121,095</u>	<u>121,095</u>
<u>Other</u>				
<u>Emoluments</u>	10,300	23,300	34,700	39,300
Superann	1,830	2,330	3,470	3,930
Transport	915	1,465	1,735	1,965
Housing	3,660	4,660	6,940	7,060
	<u>24,705</u>	<u>31,455</u>	<u>46,845</u>	<u>53,055</u>

School of Veterinary Medicine

Staffing Areas

Anatomy:	4 Academic; CT; ST; L Assts
Biochemistry	1 Academic; Techn.
Biometrics	1 Academic
Zoology and Ecology	1 Academic; ST; Techn
Physiology	3 Academics; CT; ST; L Assts
Animal Husbandry & Management	4 Academic; CT; ST; Lab & An Assts
Animal Hygiene & Envir Prot	1 Acad; ST; Tech
Animal Nutrition & Dietetics	2 Acad; ST; Tech
Animal Pathology	3 Acad; CT; Tech
Microbiol & Immunol	3 Acad; CT; ST; Tech
Parasitol & Entomol	3 Acad; CT; ST; Tech
Pharmacol & Toxicol	2 Acad; ST; Tech
Medicine & Surgery	6 Acad; CT; ST; Tech; Lab Asst
Reproduction & Art Insemination	3 Acad; CT; ST; Tech
Epizootiology	2 Acad; ST; Tech
Food Hygiene	2 Acad; CT; ST; Tech
Infectious Diseases	2 Acad; ST; Tech
Parasitic Diseases	2 Acad; ST; Tech
Veterinary Organization	1 Acad; Tech

(462)

School of Veterinary Medicine
Indicative Operating Costs

1983 - 1989

	<u>1983</u>	<u>1984</u>	<u>1985</u>	<u>1986</u>	<u>1987</u>	<u>1988</u>	<u>1989</u>
Uniforms (30)	350	560	1,260	1,710	1,770	1,770	1,770
Rep & Maint	-	50	500	500	1,000	1,000	1,000
Consumables	5,000	10,000	25,000	35,000	50,000	50,000	50,000
Fieldwork	-	3,000	5,000	10,000	10,000	10,000	10,000
Miscellaneous	500	1,000	2,000	2,000	2,000	2,000	2,000
Postage	500	1,000	2,000	2,000	2,000	2,000	2,000
Print/Stat.	5,000	12,000	15,000	20,000	20,000	20,000	20,000
Travel in Zambia	2,000	4,000	7,000	7,000	10,000	15,000	15,000
MV Costs	1,000	2,500	5,000	7,500	10,000	15,000	15,000
Research	500	2,000	2,000	3,500	5,000	5,000	5,000
Entertainment	500	1,000	1,000	1,000	1,500	1,500	1,500
Subscriptions Assms.	500	1,500	1,500	1,500	1,500	1,500	1,500
Cleaning	500	1,000	1,000	1,000	1,500	1,500	1,500
	<u>16,390</u>	<u>36,910</u>	<u>66,760</u>	<u>71,710</u>	<u>116,270</u>	<u>126,270</u>	<u>126,270</u>

Nov. 4, 82

THE UNIVERSITY OF ZAMBIA

ANNUAL REPORT

1981

**P.O. Box 32379
Lusaka, Zambia.**

April, 1982

BRIEF STATEMENT ON THE UNIVERSITY OF ZAMBIA

(1981)

This report relates to the calendar year 1981 and hence covers the second half of the 1980-81 academic session and the first term of the 1981-82 session. Programmes in the University ran according to schedule in both parts of the year. The 1980-81 academic session ended on 30th June with the completion of the sessional examinations.

STUDENT NUMBERS

ENROLLED

The University offered places to 1062 applicants for enrolment as new students in its various degree, diploma and certificate programmes with the School of Natural Sciences accounting for the highest number of places. It may be stated that prime emphasis is being laid on altering the ratio between science and non-science entrants considerably in favour of the science disciplines. As in the previous year, 51 per cent of the total intake to first year studies was for science-based programmes.

The total enrolment for 1981-82 was as follows:-

	<u>FULL-TIME</u>	<u>PART-TIME</u>	<u>CORRESPONDENCE</u>	<u>TOTAL</u>
Agricultural Sciences	171	6	-	177
Architecture & Planning*	46	-	-	46
Business & Industrial Studies*	375	14	-	389
Centre for Continuing Education	18	5	19	42
Education	769	42	265	1076
Engineering	238	8	-	246
Humanities & Social Sciences	757	19	86	862
Law	147	43	-	190
Medicine	243	-	-	243
Kines	167	14	-	181
Natural Sciences	<u>602</u>	<u>20</u>	<u>-</u>	<u>622</u>
TOTAL	<u>3,533</u>	<u>171</u>	<u>370</u>	<u>4,074</u>

*Ndola Campus - bases Schools

Since no new students were registered for Correspondence Studies enrolment shown this year reflects numbers of continuing students. On the other hand, enrolment of full-time and part-time students in 1981 shows an increase compared with the figure for 1980. The scope of enrolment cannot be increased except with regard to day scholars as there has been no construction of additional student hostel accommodation. There was also an increase in the number of post-graduate students which now stands at 94 compared with 82 in 1980:-

School of Education (M.A.)	29
School of Humanities & Social Sciences (M.A.)	28
School of Law (LL.M)	9
Post-graduate Diploma in International Law	4
School of Medicine (M.Med.)	12
School of Natural Sciences (B.Sc.)	<u>12</u>
TOTAL	<u>94</u>

GRADUATED

A total of 796 degrees, diplomas and certificates were awarded at the annual graduation ceremony held in October. The number of awards has been increasing each year. There was an increase of 126 degree awards over the previous year. Out of this increase, only 10 were in the science based fields and 116 in the Humanities based programmes. The considerable increase in the latter was due to the fact that the students studying for Bachelor of Business Administration and Bachelor of Accountancy programmes at the Ndola Campus had become eligible for conferment of degrees. These professional programmes were mounted in 1978 in temporary quarters in anticipation of the development of the Campus at Ndola. The results of introducing these programmes were noted with satisfaction and optimism when the University capped its first graduates from the Ndola Campus this year. There were 29 professional degree awards in Business Administration and 50 in Accountancy. Other new awards include the Master of Science in Land Resources Survey and the post-graduate Diploma in International Law. Out of the total award of 711 degrees, the overwhelming numbers (66.8 per cent) were in the humanities - related programmes.

The detailed break-down of the awards was as follows (with the 1980 figures in brackets):-

A

Doctor of Philosophy	-	(1)
Master of Science	4	(3)
Master of Arts	2	(6)
Master of Education	1	(4)
Master of Laws	1	(3)
Bachelor of Agricultural Sciences	23	(17)
Bachelor of Arts	190	(121)
Bachelor of Arts with Education	131	(161)
Bachelor of Arts with Library Studies	8	(16)
Bachelor of Engineering	44	(38)
Bachelor of Laws	43	(37)
Bachelor of Mineral Sciences	31	(35)
Bachelor of Science	23	(19)
Bachelor of Science with Education	40	(46)
Bachelor of Science (Human Biology)	26	(38)
Bachelor of Medicine and Bachelor of Surgery	45	(30)
Bachelor of Social Work	20	(10)
Bachelor of Business Administration	29	(-)
Bachelor of Accountancy	50	(-)
Post-graduate Diploma in International Law	6	(-)
Post-graduate Diploma in Law	1	(-)
Diploma in Nursing Education	14	(10)
Diploma in Social Work	7	(7)
Diploma in Teacher Education	16	(-)
Diploma in Adult Education	3	(41)
Diploma in Library Studies	-	(8)
Certificate in Law	12	(-)
Certificate in Public Health Nursing	13	(10)
Certificate in Adult Education	13	(15)
	<u>796</u>	<u>(676)</u>

STAFF

The science-based and other professional Schools continued to face problems on obtaining sufficient staff to mount their programmes. Most of the teaching Schools and Research Institutes were operating below establishment levels. The proportion of academics in post to approved establishment level was just 68.0 per cent. For schools with science based programmes, this proportion varied from 50.0 per cent in Agriculture to 72.7 per cent in Mines. The worst affected of all was the School of Business and Industrial Studies which was functioning below establishment level by 57 per cent. The notable exception was the School of Humanities and Social Sciences with its staffing at well over 90 per cent of establishment.

The total number of persons employed by the University as at 31st December, 1981 was as follows (1980 figures in brackets):-

	<u>Lusaka Campus</u>	<u>Ndola Campus</u>
Teaching and Research Staff	319 (338)	15 (10)
Senior Administrative, Technical and Junior Staff	1,914 (1,699)	129 (131)
Farm Employees	83 (90)	-
Nursery and Horticultural Staff	<u>123</u> (114)	<u>-</u>
TOTAL	<u>2,439</u> (2,241)	<u>144</u> (141)

The Staff Development Programme continued to receive emphasis throughout 1981 despite the financial difficulties which the University has been experiencing for sometime. The programme accounted for an estimated expenditure of K2.4 million on 1981. The results of this programme in terms of Zambians occupying academic and senior administrative posts at the University over the years have been noted with satisfaction. In 1974, Zambians engaged in teaching and research constituted a mere 9.3 per cent of the total academic staff. In 1981, the proportion of Zambian Academics total in post was 53.6 per cent while the combined number in post and in training account for 67.0 per cent of the established posts at the University. It may be mentioned that the University establishment for teaching and research staff has been growing over the years. The rate of Zambianisation is highest in the humanities - based schools, but continues to be low in the science-based schools with long degree programmes. The distribution of Zambian academic, Staff Development Fellows and Special Research Fellows was as follows:-

NEW DEVELOPMENTS

A significant development for the University during the year was the convening of the Intergovernmental Meeting at which it was agreed that a Regional School of Veterinary Medicine will be set up at Lusaka Campus under the auspices of the Food and Agriculture Organisation of the United Nations. This School will provide professional veterinary education for students from Botswana, Lesotho, Malawi, Namibia, Swaziland and Zambia and from other countries in Southern Africa who may wish to avail themselves of these facilities. There is an alarming shortage of veterinarians and livestock production specialists in the countries of this sub-region. The number of nationals employed or being trained in all the countries of the sub-region is low and the current training facilities are inadequate to meet future requirements. A blue-print comprising all the facets of the proposed School has not yet emerged as discussions are still continuing.

The University, in accordance with its obligation to meet the manpower needs of the country and at the request of Government, set up a new School of Architecture and Planning (at Ndola Campus) to train Zambians for architecture and Quantity Surveying professions. Most of the posts at professional level in these occupations are held by expatriates recruited for short periods of two or three years. Since the number of Zambians trained abroad has been far from adequate recourse is therefore made to fill the gap by recruiting expatriates. The need had been felt for sometime that a sufficient number of Zambians should be trained over a period of time to meet the growing demand for personnel in these professions and also to take over from expatriates.

On 20th July, 1981 His Excellency the President appointed a Commission of Inquiry to look into a number of matters connected with the running of the University. The Commission, which is chaired by Mr. W.P. Nyirenda, commenced its duties in September and a report is expected to be submitted to the President in 1982.

The Committee set up in 1979 to review the existing structures and location of teaching disciplines within the School of Education, the School of Humanities and Social Sciences and the Centre for Continuing Education completed its deliberations in April. The Committee concerned itself with the inter-relationship of these three bodies and their relationship to other sectors of the University. The Committee had a

series of meetings to review the structures, outline the future developments in these disciplines within these Schools. In its report released in July, the Committee expressed a strong desire to see the structural reorganisation of the units take place as soon as possible. The Department of Philosophy was inaugurated in December in accordance with the recommendations of the Restructuring Committee.

In order to increase the number of secondary school leavers qualifying for admission to science courses, a pre-university science course for school leavers was drawn up and administered. The aim of this project is to increase the number of entrants to the School of Natural Sciences who would eventually qualify for entry to the School of Agricultural Sciences, Engineering, Medicine and Mines.

Work on the Bridge Building in the School of Education Stage III was completed. The four storey bridge section has provided additional teaching and seminar rooms and office accommodation for the Lusaka Campus.

The School of Agricultural Sciences embarked on a programme to build four animal and bird blocks within the demonstration plot (Field Station) and renovated the old one into a brooder-poultry research unit for both Lecturers' and students' projects.

Work on the School on Mines extension started at the Lusaka Campus. The two floor extension will cost nearly K1.1 million much of which will come from the Swedish International Development Authority. The new wing will house several laboratories, a lecture room, cartography and computation rooms and 15 offices.

The School of Medicine received medical equipment and instruments worth K0.3 million from the Japanese International Corporation Agency. The donation which included two jeep vehicles is being used for the Paediatric Surgical Wards at the University Teaching Hospital. Two laboratories which were under construction in 1980 were handed over to the School. The laboratories constitute Phase I of the planned four phases aimed at providing the School with a modest but permanent home at the Ridgeway Campus.

The University also received books, scientific equipment and teaching aids through bilateral and other arrangements with a number of countries. Other donations came in the form of technical assistance and supplementation arrangements which helped the University fill a number of posts.

in various Schools. Research funds came from Government Ministries, local industries, United Nations Organisations, the Swedish Agency for Research with Developing Countries, and from other International agencies.

As a result of the recently concluded exchange programme between the University of Zambia and Colgate University (U.S.A.), 14 students and one faculty member arrived from Colgate University. The 14 students who are in their senior (Fourth) year of undergraduate studies enrolled for the September-December term in the School of Humanities and Social Sciences. Earlier a staff member from this School had gone to Colgate University to teach two HSS courses entitled "Political and Social Changes in Africa" and "The Structure of Zambian Society". At the request of the Ministry of Education and Culture the University also provided facilities for ten (10) students from North Korea to audit courses in the School of Education.

Lectures and Seminars were conducted by three University Professors from Japan. The topics of discussion related to Japanese politics, literature and economy.

Some of the staff at the University were actively involved in Agricultural Data Baseline Project. This is a joint NCDP/UNZA Project. The objectives are to carry out a comprehensive inventory and evaluation of existing data information and research activities related to agriculture and rural development in Zambia, to identify data information deficiencies and recommend actions for their improvement and to suggest areas which merit immediate empirical investigation for the successful planning of the agricultural sector in Zambia.

OTHER

Although the University was more generously financed in 1981 than in previous years, it continued to experience financial problems because of delays in the payment of student bursaries. Its financial state was further aggravated because it did not receive the entire subvention approved by Parliament in January 1981 and none of the supplementary provision which Parliament approved in December 1981. Capital developments were somewhat curtailed because all approved sums were not transmitted,

The Development of the University continues to be limited by shortage of houses for teaching and research staff and of hostel accommodation for students. Incoming senior staff must be accommodated in hotels at great expense. Until the institution is provided with the funds needed to increase its housing pool it will not be able to fill all established posts, let alone increase these in areas of need. Student hostels are now used to capacity and so long as the University must provide accommodation for students there can be no significant increase in numbers until more hostels are provided.

As in previous years members of the University Community continued to place their expertise at the disposal of Party, Government and parastatal organisations through their participation on various committees, boards and commissions, and through the consultancy services rendered by professional staff. The year was also marked by several publications by members of staff, among them a number of papers dealing with various issues related to Zambia.

Issued on behalf of the University of Zambia

29th March, 1982

I.J. Kelly
DEPUTY VICE-CHANCELLOR

N.B.

This is the usual brief annual report presented to the Government on the activities of our institution. The report, as will be realised, does not include matters of financial nature which form what we refer to as Final Accounts and which are presented separately after they have been completed by auditors and subsequently approved by the University Council.

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AG:DP/RAF/78/052
Mission Report

IDENTIFICATION MISSION
TO SOUTHERN AFRICA
ON VETERINARY TRAINING

ANGOLA, BOTSWANA, LESOTHO, MALAWI,
MOZAMBIQUE, SWAZILAND, ZAMBIA

MISSION FINDINGS AND RECOMMENDATIONS



UNITED NATIONS DEVELOPMENT PROGRAMME



FOOD AND AGRICULTURE ORGANIZATION
OF THE UNITED NATIONS ROME, 1980

8. ZAMBIA

8.1 BASIC DATA 1/

Land area	= 752 614 km ²
Human population	5 500 000
Population economically active in agriculture	1 377 000
Gross national product	US\$ 2 300 000 000 2/
Average income per person	US\$ 450 2/

Livestock population

cattle	1 702 277
horses	} 1 053
donkeys	
sheep	32 426
goats	318 507
pigs	156 353
poultry	14 000 000

Number of veterinarians

total	61
nationals	6

Number of animal health assistants

373

Number of animal production professionals

total	22
nationals	7

Number of animal production support staff

272

8.2 ANIMAL PRODUCTION SITUATION

The economy of Zambia depends heavily on the copper industry. However, livestock farming is a vital area of development. Beef and dairy cattle, pigs, sheep, goats and poultry, though kept in substantial numbers, are still inadequate. Nearly all commercial cattle are raised on ranches in the Central and Southern Provinces near the railway and close enough to markets for animals to arrive for slaughter in good condition.

1/ Sources: Government information; FAO - Production Yearbook 1978; Animal Health Yearbook FAO/WHO/OIE, 1978.

2/ World Bank Atlas 1978.

In order to increase local supply, the National Beef Scheme encourages subsistence farmers to sell more cattle and to lower calf mortality by improved management. Milk production varies seasonally with the conditions of grazing, being highest early in the year. Almost 48 000 t were produced in 1978. Much effort is exerted to improve the quality and production of pigs through cooperatives and pig farming courses. The sheep population reached 32 000 in 1978 and poultry farming has been expanding vigorously. Eggs and poultry come mostly from the Copperbelt and Lusaka, but egg production by peasant farmers and cooperatives is increasing rapidly.

8.3 ANIMAL HEALTH SITUATION

Zambia is free from rinderpest. Isolated outbreaks of foot-and-mouth disease, type SAT 2, occurred in January and June 1975. Type O was recorded in 1976 but types A and C have never been recorded. An outbreak of haemorrhagic septicaemia was reported in 1978. Of the animal diseases that have been reported, the most important are tuberculosis and brucellosis. Brucella abortus and melitensis are recorded, but Brucella ovis is not known. Blackleg, anthrax and rabies are recorded sporadically in the bovine. Anaplasmosis is recorded with moderate incidence in the bovine, babesiosis with moderate incidence in both bovines and canines. The incidence of these diseases in indigenous bovines is low, but in exotic breeds it is high, unless the animals are under tick control regimes. Theileriasis is recorded in bovines but is confined to certain regions. Trypanosomiasis is frequently recorded in bovines, while in caprines and ovines it is reported to have low, sporadic incidence. Liverfluke is reported with high incidence in bovines and low frequency in ovines. Cysticercus bovis occurs with low incidence and is controlled through meat inspection after slaughter.

The most common poultry diseases are Newcastle disease and coccidiosis (high incidence), while chronic respiratory disease and Marek's disease are reported with moderate and low incidence respectively. Vaccination programmes against bovine brucellosis, anthrax, blackleg and other clostridial diseases, haemorrhagic septicaemia, fowl cholera and blue tongue are carried out.

8.4 ANIMAL PRODUCTION AND HEALTH ORGANIZATION

The animal production and health organizational structure is as follows:

Ministry of Agriculture and Water Development

Department of Agriculture

Has responsibility for all of the animal production extension work in the country as well as for development activities; some research and training below university level are also handled by this Department.

Department of Veterinary and Tsetse-Control Services

Has responsibility for animal health matters only.

In addition the National Council for Scientific Research has under it an Animal Production Research Unit with three sections; Animal Nutrition, Reproductive Physiology, and Microbiology.

8.5 EDUCATION AND TRAINING

8.5.1 General education

Since independence, Zambia has made remarkable progress in developing education at all levels. In the past the limited number of graduates from the secondary school system allowed only a small number of Zambians to receive specialized training in agriculture. In 1967 the output from the secondary schools (Form V) was only 1 600 but increased to 5 500 by 1970 and stabilized at 7 000 over the next five years. About 18% of these secondary school leavers qualify for additional training at diploma or degree level.

Trained Zambians at all levels of agricultural education (certificate, diploma, degree and postgraduate) are needed for the overall agricultural and rural development programmes.

Agriculture as a part of the curriculum is not taught in the primary schools. However, agricultural examples are employed in the teaching of science in the upper elementary grades beginning at standard five.

The teaching of agriculture as an academic subject was started in eight schools in 1968. By January 1971 the number had grown to 59, and it was expected that within five years all rural secondary schools would be involved in the programme.

Interest in agricultural education has been observed to be growing, based on the large number of applications for enrolment in agriculture for certificate, diploma and degree training.

Secondary education in Zambia qualifies the country's youth to sit for the Junior Cambridge Certificate examinations.

O-level passes are requisites for admission to post-secondary training. There are no high schools in the country that can prepare students for examinations at the A-level. Consequently, scholarship candidates for training abroad, which requires A-level passes, have to undertake preparatory studies at the Faculty of Natural Sciences at the University of Zambia in Lusaka.

8.5.2 Training institutions in agriculture and livestock

8.5.2.1 The University of Zambia (UNZA) School of Agricultural Sciences

5781
The University of Zambia in Lusaka established the school of Agricultural Sciences in 1971 with a five-year curriculum leading to the degree of B.Sc. in Agriculture. Up to the last academic year (1978-79) the course was of a general nature without provision for specialization. One of the five new fields of specialization, starting in 1979-80, is Animal Science, the others being Crop Science, Soil Science, Agricultural Engineering, Agricultural Economics and Extension Education.

Satisfactory farm practice of 30 weeks is required as a condition for graduation. The schedule for obtaining practical farm experience is spread over three years - ten weeks after each of the second, third and fourth years.

Specialization in animal science is designed to develop professional competence in the practical application of the scientific and economic principles governing animal production and relevant to the development needs of the country, particularly in regard to the production of beef and dairy cattle, sheep and goats, pigs and poultry.

The programme of training starts with one year at the School of Natural Sciences, although the student is initially identified with the agriculture curriculum. The subsequent four years are devoted to agriculture with specialization provided in the fifth year inclusive of a Special Project. The Animal Science major will offer one and a half course equivalents (i.e. three animal science subjects) more than was provided in the general agriculture curriculum. The practical aspects of various agricultural and animal science subjects are being undertaken largely at the Natural Resources Development College, 8 km away from the UNZA campus, and increasingly at the developing 1 600 ac university farm located 16 km away.

The minimum entrance requirements for the School of Agricultural Sciences are as follows:

- five acceptable O-level passes, or
- five acceptable credits at Cambridge School Certificate, or
- five acceptable subject passes at an approved standard in another examination deemed equivalent by the University Senate.

In these categories, subjects offered for admission must include at least one subject from each of the following four subject schedules:

- English Language
- Mathematics
- Chemistry or Physics or Physical Science
- Biology or Agricultural Science.

Each subject must be passed at credit 5 level or better.

Diplomates who graduate with Distinction from the Natural Resources Development College (NRDC) qualify for the School of Natural Sciences and subsequently for the School of Agricultural Sciences. NRDC diplomates are not exempted from any course in the B.Sc. Agriculture programme but may be exempted from the vacation practicals.

Graduates with Animal Science majors are expected to find employment in the Ministry of Agriculture and Water Development as Animal Husbandry Officers, at the National Council of Scientific Research as Animal Husbandry Research Officers, and on parastatal and private ranches.

The annual intake of students into the School of Agriculture was 28 in 1972 as compared with 42 in 1978; it is proposed to increase this to 50 in the future.

8.5.2.2 The Natural Resources Development College

The NRDC, which was inaugurated in October 1964, is located on a 304-ha campus, 12 km from Lusaka on the Great East Road. It operates a 1 600-ha ranch 3 km away from the campus with 1 000 head of cattle and smaller herds of sheep, goats and pigs. It opened its doors to students in March 1965, with an initial offering of seven two-year diploma courses and a one-year certificate course in home economics.

Several changes in the curriculum have taken place since 1965, reflecting the changing development needs of the country. At present the College offers eight three-year diploma courses as follows:

Agriculture
 Livestock Science and Production
 Agricultural Business Management
 Agricultural Education
 Agricultural Engineering
 Fisheries
 Nutrition
 Water Management

Practical training is emphasized and takes about half the student's time. Off-campus practical training is normally scheduled between the second and third academic years.

The Diploma course in Livestock Science and Production is essentially geared to the improvement and development of the country's livestock and poultry industries. While the course provides a general agricultural foundation, it places major emphasis on the various aspects of livestock husbandry, production and health.

The minimum entry requirement for the Livestock Science and Production course is a full Cambridge Certificate with a credit in at least one of the two subjects combined as follows:

Physical Science and Agricultural Science
 Physical Science and General Science
 Biology and General Science
 Biology and Agricultural Science

A pass in Mathematics is also required.

The normal intake consists of students who have passed the Cambridge Certificate at Division II level.

Graduates from this course are equipped with a combination of business, managerial, supervisory and practical technical skills in the handling, feeding and housing of animals as well as in the prevention and treatment of livestock and poultry diseases. Their principal employer is the Ministry of Agriculture and Water Development. They are employed as Livestock Officers and Animal Husbandry Officers. In recent years the employment demand by the private commercial sector, such as the ranches, has been on the increase.

The course has an annual intake of 30 students with an average attrition rate of 20% over the three-year period.

Starting with the academic year 1979-80, the three courses in Agriculture, Livestock Science and Production and Agricultural Business Management will be integrated into one General Agriculture Course. The first two years will be common to all three and during the third year an equivalent of one-half year will be devoted to a specialization in any one of the three areas. The expected intake for this combined course is approximately 60; there would be about 40 applicants for each place, but the majority of them would not have the requisite entry qualifications. The anticipated output of graduates from the intake of 60 is about 45.

8.5.2.3 Zambia Institute of Animal Health

The Zambia Institute of Animal Health is located at Mazabuka, 120 km from Lusaka. It was founded in 1940, and since independence in 1964 over 2 000 students, including in-service personnel, have passed through it. Students with O-level are admitted provided they have secured passes in Natural Science, Mathematics and English. Intakes are 35 and 15 students per year respectively for the Veterinary Assistants and Veterinary Laboratory Assistants courses. All graduates are appointed to the Government Department of Veterinary and Tsetse Control Services.

The current academic staff members consist of 10 nationals and one expatriate (the Principal) who is the only qualified veterinarian. The national staff members are for the most part either diploma holders from NRDC or former graduates of the Zambia Institute of Animal Health.

In the near future the UNDP/FAO project RAF/75/001, Applied Research and Training in Tsetse Control, will provide one Training Officer for the training of tsetse control personnel. DANIDA has offered to provide one Clinician and one Epidemiologist for the training of Veterinary Assistants.

The Institute provides the following courses:

Pre-service courses:

1. A final year certificate course for Veterinary Assistants (after a one-year foundation course in agriculture and animal husbandry at the Zambia College of Agriculture at Monze).
2. A two-year certificate course for Veterinary Laboratory Assistants.
3. A one-year certificate course for Tsetse Control Assistants.
4. A one-year certificate course for Tsetse Scouts.

In-service courses:

1. A three-month clinical in-service course for Livestock Officers, Senior Veterinary Assistants and Veterinary Assistants.
2. A three-week course for Tsetse Hunters.
3. A four-week course for Tsetse Control Guards.
4. A three-week course in Hides and Skins Improvement.

8.6 PROFESSIONAL VETERINARY MANPOWER

8.6.1 Manpower situation

There are at present 61 veterinarians in Zambia; they are employed as follows:

	<u>Total</u>	<u>Nationals</u>
Department of Veterinary and Tsetse Control Services	26	5
Technical Assistance Projects	6	-
Volunteer work	6	-
Department of Agriculture	4	-
Training and education institutions	4	-
National Council for Scientific Research	6	-
Farming enterprises	4	-
Pharmaceutical firms	2	-
Department of Wildlife	1	1
Private practice	<u>2</u>	<u>1</u>
Total	<u>61</u>	<u>6</u>

8.6.2 Future requirements

The professional veterinary staff position in the Department of Veterinary and Tsetse Control Services in 1976 and the projections to 1982 supplied by that Department are shown below:

<u>Post</u>	<u>Establishment (1976)</u>	<u>Filled (1976)</u>	<u>Establishment (1982)</u>	<u>Special schemes (1982)</u>
Director	1	1	1	-
Deputy Director	1	1	3	1
Assistant Director (Research)	1	1	2	-
Senior Veterinary Officer	2	2	8	-
Senior Veterinary Research Officer	1	1	2	4
Senior Biologist	1	1	1	-
Research Scientist	3	2	5	4
Veterinary Officer	20	20	29	12
Veterinary Research Officer	6	1	12	8
Total	<u>36</u>	<u>30</u>	<u>63</u>	<u>28</u>

Thus, depending on the availability of funds, the total number of veterinarians that should be employed in 1982 to service the Department of Veterinary and Tsetse Control Services and its special schemes is 91. But the overall requirements for the country as a whole should also take account of those who will be engaged in work in the Department of Agriculture, the National Council for Scientific Research, the Department of Wildlife, the various training and educational institutions, farming enterprises, pharmaceutical firms and private practice. A reasonable overall figure would therefore be of the order of 120 veterinarians by 1982; but funding for these posts is not assured. This represents a ratio of 10 000 LU per veterinarian.

8.6.3 Training of veterinary manpower

8.6.3.1 Current situation

Twelve training places are available annually to enable Zambian students to study at the Faculty of Veterinary Medicine, University of Nairobi, Kenya. However, the entry requirements at the latter institution call for three A-level passes in the Cambridge Certificate Examination or its equivalent, and these entry requirements cannot be met by Zambian students since the local secondary school system is not geared to taking them to A-level. In consequence, the arrangement with the University of Nairobi is that Zambian students seeking entry to its Faculty of Veterinary Medicine should have successfully completed at least the first year examinations in the School of Natural Sciences at the University of Zambia.

44/10/76

Despite this arrangement and despite reasonably remunerative scholarships being organized for all Zambian students admitted to the Nairobi Faculty there are only four students from Zambia at present at that Faculty. All of these were admitted in 1976. For the 1979/80 academic year, three candidates had applied for admission and the outcome of their applications was being awaited during the Mission's visit to Zambia. The apparent lack of interest of Zambian students in pursuing studies in Veterinary Science at Nairobi is attributable to several factors. One is that applications for admission to Nairobi are entertained by the host institution only after the candidates have successfully completed their first year examinations in Natural Sciences in Zambia; this means that their applications cannot be considered for the academic year that follows immediately after the one that they have completed in Zambia, and they have to wait until the following February for their applications to be processed and a decision taken as to whether they are admissible. The resulting loss of one academic year as well as the accompanying uncertainty are not conducive to any substantial improvement in the situation even in the future. A further contributory factor is the length of time that the students have to spend away from Zambia to obtain their veterinary qualifications; by contrast, if they remained in Zambia and either continued in the School of Natural Sciences or secured admission to the School of Agricultural Sciences, they could graduate one to two years earlier and thus be assured of securing employment in a shorter period of time.

8.6.3.2 Long-term development plans

The first plans for setting up a School of Veterinary Science in Zambia, capable of providing professional level training in veterinary medicine, were made by the University of Zambia in 1976. It invited Professor R. Tucker, then Professor of Anatomy at the University of Nairobi, and Professor G. Maloiy, Professor of Veterinary Physiology of the same University (and currently Dean of its Faculty of Veterinary Medicine), to visit Zambia and advise on ways and means of setting up the school.

~~These consultants noted in their report to the University that Zambia has a small but thriving livestock industry. They recognized that milk, meat and their by-products were all scarce commodities and that this scarcity would continue until bold measures were taken to remedy the situation. These measures should include the development of a strong and well-staffed Veterinary Service capable of maintaining the health of the country's livestock and increasing their productivity. A School of Veterinary Science was therefore regarded as essential to acquire the required cadre of veterinarians.~~

It is relevant that even when these plans were made for professional level veterinary training in Zambia, it was recognized that the School of Veterinary Science should be designed to provide training to both Zambians and non-Zambians from within the Southern Africa region. The training programme proposed was to be of six years duration; the first two years were to be at the School of Natural Sciences of the University of Zambia in Lusaka and the next four years at a new campus to be created at Solwezi in the northwestern province of the country. The proposal was that, after the first four years of study (two in Lusaka and two in Solwezi), successful students were to be awarded a B.Sc. (Animal Biology) degree and, after a further two years, they were to be granted the degree of Bachelor of Veterinary Science (B.V.Sc.).

The proposed School of Veterinary Science was to have the following departments: Biology; Production; Pathology; Special Pathology; Prevention and Conservation. The subjects leading to the B.Sc. (Animal Biology) and the B.V.Sc. respectively were outlined as follows:

- Year I : Biology; Chemistry; Mathematics; English or African studies.
- Year II: Botany; Chemistry; Zoology; Physics; Introduction to Veterinary Science.
- Year III: Anatomy (including Histology and Embryology); Physiology; Animal Production (Animal Management and Genetics).
- Year IV: Pathology; Parasitology; Entomology; Microbiology; Animal Production (Nutrition and Husbandry).
- Year V: Diagnostics; Pharmacology; Medicine I; Surgery I; Public Health.
- Year VI: Medicine II; Surgery II; Obstetrics; Preventive Medicine.

It was intended that the Solwezi campus, where the last four years of teaching were to be undertaken, would eventually develop three schools: a School of Agriculture and a School of Forestry and Wood Science, and the School of Veterinary Science. The estimated cost of setting up this new campus for 1 250 student places at 1976 prices was Kwacha 41 million; 1979 costs are likely to be about 160% higher.

The selection of Solwezi for the siting of the Agriculture - Veterinary Science - Forestry and Wood Science complex was made on the basis of the Government's desire to decentralize the University and promote rural development. However, it should be noted that the livestock population of the northwestern province where Solwezi is located is only about 3% of the total livestock population of Zambia; moreover, the area needs vast improvements in amenities and infrastructure if high calibre teaching staff are to be attracted to and retained on the campus.

8.6.3.3 Short-term proposals of the University

The investments required to set up the Solwezi campus are of such magnitude that the University of Zambia considers other short-term plans necessary if teaching for a B.V.Sc. degree is to commence within the next few years in Zambia. The Mission was informed by the university authorities that they intend to submit for the consideration of the Government a short-term solution along the following lines.

As part of its normal growth, the School of Natural Sciences located on the main campus of the University of Zambia in Lusaka would increase its intake of students as from 1980-81. This increased intake would be intended to cater not only for an increasing number of students who will continue in the same school or will proceed to other existing schools in the University, but also for those who will enter the new areas of study that the University proposes to establish during the eighties, viz. Dentistry, Veterinary Medicine and Pharmacy. The principal growth resulting from this increased intake will be in the Department of Chemistry of the School of Natural Sciences, because the subject matter covered by that Department is common to most areas of study. The Department can cope

at present with about 450 students; its capacity is expected to be increased to about 600-650 over the next decade. It is anticipated that such expansion would enable the School of Natural Sciences to provide, *inter alia*, the first two years of teaching for the B.V.Sc. students. Building designs for the proposed expansion are expected to be ready by early 1980 and it is hoped to attract external funding from several donor agencies for the implementation of this programme of expansion.

Simultaneously with developments in the School of Natural Sciences, it is proposed to rebuild the facilities for the teaching of preclinical subjects in the School of Medicine on the Ridgeway campus of the University of Zambia, which is located very close to the main campus. The rebuilding plans will take account not only of the continuing requirements of medical students but also of students in the proposed dental, veterinary and pharmacy courses. There would be common course offerings to the extent possible to students in all four areas of study. The veterinary students are expected to spend their third and fourth years on the Ridgeway campus; they would also attend courses in animal production during this period at the main campus of the University and share facilities with the agricultural students in this subject.

It is intended that the fifth and sixth years of training for the B.V.Sc. programme be conducted at the 1 600-ac university farm located some 16 km from the main campus; but this would require new buildings, equipment, facilities and staffing, as none exist there at present. However, if the University is given approval by the Government to proceed with its plans to take in its first batch of students for the veterinary science course in 1980, it would then have a period of about four years to prepare for their admission to clinical studies.

These short-term plans for providing professional level veterinary training in Zambia could have several advantages. They would permit a sharing of common facilities during the first two years within the School of Natural Sciences in all the subjects taught, except for the introductory course in veterinary science. The two preclinical years (*viz.* the third and fourth years of the programme) would also allow for integration with the ongoing programme in the School of Medicine and the proposed programmes in Dentistry and Pharmacy. In addition, there would be sharing of facilities with the Department of Animal Science of the School of Agricultural Sciences in the teaching of animal husbandry. The clinical years (*viz.* the fifth and sixth) could benefit to a great extent from the knowledge and experience of the following institutions situated in and around Lusaka: the National Council for Scientific Research, Mount Makulu; the Department of Veterinary Services Research Station, Balmoral; the Department of Veterinary Services Veterinary Clinic, Lusaka; and the Abattoir of the Cold Storage Board of Zambia, Lusaka. They could all provide visiting lecturers and/or practical teaching facilities. When all of these are combined, the advantages of the Lusaka location for a Faculty of Veterinary Science to serve the southern Africa sub-region are very considerable.

3.7 PROFESSIONAL MANPOWER FOR ANIMAL PRODUCTION

3.7.1 Manpower situation

Responsibility at the professional level for animal production in Zambia is vested in the following organizations:

- the School of Agricultural Sciences, University of Zambia, which offers a first degree in Agriculture with a limited amount of specialization in animal science as from the academic year 1979-80. The Animal Science staff of the school also carry out some research in their individual areas of interest;
- the Animal Productivity Research Unit, National Council for Scientific Research, which has three sections dealing with animal nutrition, reproductive physiology and microbiology respectively and undertakes research in these fields;
- the Department of Agriculture, Ministry of Agriculture and Water Development, which, inter alia, has responsibility for all of the animal production extension work in the country as well as for development activities, some research, and training below university level.

It should be noted that the Department of Veterinary and Tsetse Control Services is concerned with animal health matters only.

The number of animal production professionals who have either a first degree with a major in animal production or a postgraduate degree in the subject is still relatively small in Zambia. The work that should be undertaken by national animal production professionals is currently looked after by lesser qualified persons or expatriates. Thus, of the present establishment of 23 in the Animal Husbandry Extension Section of the Department of Agriculture, 10 are agricultural graduates of UNZA with no specialist qualifications in animal production, and of the expatriates, only 5 may be classified as specialists.

The distribution of the total available professional level manpower in animal production in Zambia may be summarized as follows:

	<u>Total</u>	<u>Nationals</u>
o School of Agricultural Sciences, University of Zambia	7	4
o National Council for Scientific Research	6	2
o Natural Resources Development College	1	0
o Department of Agriculture, Ministry of Agriculture and Water Development		
Animal Husbandry Research Officers	3	1
Animal Husbandry Extension Officers	5	0
Total	<u>22</u>	<u>7</u>

8.7.2 Future requirements

The Department of Agriculture, Ministry of Agriculture and Water Development proposes the following establishment of professional animal production staff for 1982 and 1985 respectively:

	<u>1982</u>	<u>1985</u>
Chief Animal Husbandry Officer	1	1
Animal Husbandry Extension Officers	15	25
Senior Dairy Officer	1	1
Regional Dairy Officers	6	11
Senior Poultry Officer	1	1
Regional Poultry Officers	6	9
Senior Pig Husbandry Officer	1	1
Regional Pig Husbandry Officers	3	5
Cattle Development Area Project	8	17
<u>Total</u>	<u>42</u>	<u>71</u>

These projections appear to be not unreasonable. The professional staff for the Cattle Development Area Project are to be provided in the early years under foreign aid financing arrangements, which are available for funding the whole project.

8.7.3 Training of animal production professionals

8.7.3.1 Current situation

As stated under training institutions above, the School of Agricultural Sciences of the University of Zambia has introduced, as from the academic year commencing October 1979, a new degree course in Agriculture that permits a limited amount of specialization in animal science. This will allow the students majoring in animal science to take one and a half course equivalents (i.e. three animal science subjects) more than was provided in the past in the general agriculture curriculum. The total number of students likely to benefit from this development would probably be no more than 6 to 10 per year, because there are four other fields of specialization besides animal science being introduced into the undergraduate curriculum, the total maximum annual intake of students into all five options being around (50).

Apart from the above opportunity for limited specialization, there are no other arrangements for the training of Zambian nationals as animal production professionals. Overseas training is also taken advantage of only to a small extent; indeed, despite the availability of numerous external scholarships, which was brought to the attention of the Mission during its visit, there appeared to be only three Zambians abroad on professional level training in animal production.

8.7.3.2 The future

The Mission was informed that the Department of Agriculture is experiencing difficulty in securing and retaining good quality staff because the conditions of service do not seem to be attractive to them: housing is in short supply, and the lack of transport and the shortage of recurrent funds for gasoline adversely affect job performance and job satisfaction. Be that as it may, it is essential that the training of nationals to take up the projected staff positions within the Department of Agriculture in 1985 should be undertaken with determination. After all, conditions of service could change with time. Moreover, continued reliance on expatriate staff and on inadequately trained national staff cannot provide a sound basis for the long-term development of the country's animal industry.

The University of Zambia has thus a major responsibility for training the animal production professionals needed. Not only should its efforts in offering a major in animal science in its first degree course be strengthened, but positive action should also be taken to introduce a limited amount of postgraduate training as well. Consideration could be given to the latter development through international assistance, if the Government of Zambia so wished.

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8.8 CONCLUSIONS AND RECOMMENDATIONS

There is an urgent need to make arrangements for the training of professional level veterinarians to meet both the immediate and the future manpower needs of Zambia. Of the 61 veterinarians in post in the country at the present time, only 6 are nationals. For the arrangements to be effective, it is necessary that the training be provided within the southern Africa sub-region of which Zambia is a part. The secondary school system in the country (as in other countries in the sub-region) is not geared to make effective use of training opportunities for professional level veterinarians elsewhere.

Long-term plans for the development of professional level veterinary training in Zambia involve the creation of a new campus in Solwezi. This would have advantages from a national standpoint, e.g. decentralization of the University and the promotion of rural development. However, if Solwezi is to be developed with international support to meet the professional training needs in veterinary science of students from all of the English-speaking countries in the southern Africa sub-region, it will have a decided disadvantage in not being able to recruit and retain high calibre international staff. Vast improvements in amenities and infrastructure will be necessary if this disadvantage is to be overcome.

Since considerable investment is required to set up the Solwezi campus the University of Zambia intends to submit for the consideration of the Government a short-term solution for the period 1980-90. This involves a sharing of facilities during the first two years of the B.V.Sc. programme with the School of Natural Sciences; a similar sharing of facilities during the two preclinical years with the School of Medicine and the School of Agricultural Sciences, and the building of completely new facilities, for the two clinical years only, at the university farm about 16 km from the main campus. The Mission found these short-term plans attractive and feasible.

The current professional manpower situation in animal production in Zambia is unsatisfactory. The efforts of the School of Agricultural Sciences of the University of Zambia to offer a major in Animal Science in its first degree programme as from the academic year 1979-80 should, therefore, be strengthened. Further positive action should also be taken to introduce a limited amount of postgraduate training in selected animal production subject matter areas. Consideration may be given to the latter development through international assistance, if the Government of Zambia so wishes.

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