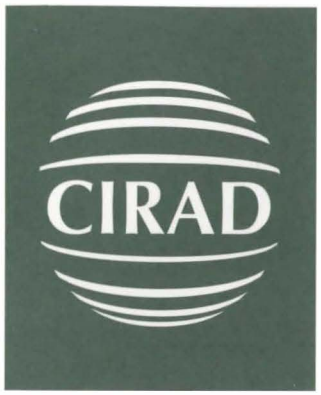
Regional Tsetse and Trypanosomosis Control Programme
Malawi, Mozambique, Zambia, Zimbabwe and Namibia
Phase II



Training Programme of the RTTCP

Final Report
1995 to 1998

Susanne MÜNSTERMANN
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Septembre 1998

Centre de coopération internationale
en recherche agronomique pour le développement

REGIONAL TSETSE AND TRYPANOSOMOSIS CONTROL PROGRAMME
MALAWI, MOZAMBIQUE, ZAMBIA, ZIMBABWE AND NAMIBIA

PHASE II

TRAINING PROGAMME OF THE RTTCP

FINAL REPORT

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SUMMARY

The Regional Tsetse and Trypanosomosis Control Programme (RTTCP) of Malawi, Zambia, Mozambique and Zimbabwe started in 1986 in response to the re-emergence of tsetse flies during the war for Zimbabwe's independence. The programme's long-term goal was to eradicate tsetse from the 322 000 km^2 flybelt common to the four countries (Map 1). The RTTCP underwent significant changes during its two phases. Emphasis shifted from the technical, eradication orientated focus towards the development of a strategic plan for integrated tsetse control to support sustainable rural development.

During the programme's period great achievements were made in the technology to control tsetse. The odour-baited target technology (Vale et al, 1988)[1] became generally accepted as environmentally friendly and cost effective. It was applied in the field in all four countries. Related results of research findings needed to be transferred rapidly to the field level through technical training by all RTTCP staff.

The need for these important ad hoc training activities to be co-ordinated and embedded into a distinct training programme was identified at the end of Phase I. A training component was however, only introduced at a very late stage of RTTCP and attached to the Regional Office as one of its service units. The appointment of a Technical Assistant coincided with the end of the mid-term evaluation in October 1995, which had recommended widening the scope of this component. The Terms of Reference for the *Course Director* of a postgraduate training course were changed to include "*the facilitation of University, management, research, middle-level, social and field-level training*". The post was changed to a *Training Co-ordinator*. The consultant CIRAD and the Technical Assistant agreed with these changes and the Training Co-ordinator started her work on 6.10.95.

The training programme's objective and outputs were defined in a logical framework.
The result *Human Resources Development established* was to contribute to the RTTCP's overall project goal *Integrated tsetse control to support sustainable rural development*. The result was to be achieved through three sub-results:

- Middle-level training
- Postgraduate training
- Management training

This final report of the Training Co-ordinator summarises her activities during the period October 1995 to September 1998. Planning formed a substantial part of these activities and is therefore described in some detail. Implementation of middle-level and postgraduate training is outlined in broad principles; details are given in the annexes. Management training activities varied greatly in approach and content and are therefore summarised in the report.

[1] G.A.Vale, D.F.Lovemore, S.Flint, G.F.Cockbill (1988): Odour-baited targets to control tsetse flies (Diptera: Glossinidae), in Zimbabwe. Bull. Ent. Res., 78, 31 - 49

The report also discusses the effects of the late start of the training programme coupled with increased numbers of tasks and a limited time period of three years allocated to it.

This time constraint had mainly two effects:

- partial or no institutionalisation of training activities
- partial or no qualitative evaluation of impact of training on capacity building

The time factor had been identified as the major constraint to the training programme by mid 1997. The situation was explained to the Regional Standing Committee, the RTTCP's governing body, in October 1997. It was agreed that the training programme should be extended at least until the end of the MSc Course, and an extension of the Training Co-ordinator's contract was recommended. This issue was taken up again by the Management and Planning Subcommittee in early 1998. Members of this Committee agreed that the Technical Assistant contract should not be extended. Subsequent discussions between the Regional Office, the SADC Livestock Sector and various other stakeholders showed that the link between these bodies regarding their roles and chain of command has not as yet been clearly established.

Within the limited time available to establish a regional training programme, considerable results were achieved that are summarised below.

> Twelve middle-level training courses were held in 1996/97 in which 132 people participated, 39 of those came repeatedly. Continuous and increasing demand for this type of field based, practically orientated training was expressed by tsetse field staff. An assessment of increased capacity to control tsetse in the field however, could, only be done partly and indirectly. An integration of middle-level training into national institutions had been planned but could not be implemented due to time shortage. This left the Region in a situation, which had been declared highly undesirable after the closure of the FAO managed SADC Middle-level training School, Lusaka in 1995.
>
> Thirteen Veterinarians and Biologists and 12 non-graduate senior field officers (Occasional Students) participated in the first two years of the MSc Course "Tsetse and Trypanosomosis Control". Their performance assessment was done mainly academically, an impact on capacity building in tsetse control through the services eventually rendered by these graduates will only be possible after the end of the Course-work part (December 98) and their graduation (December 99). The management of the Course was successfully handed over to the Faculty of Veterinary Science. However, there was no commitment to the continuation of this Course after December 99 by the University.
>
> Five workshops and seminars were held in the result area Management training in which 69 people participated. Management Training Needs Assessments were carried out, training needs for government personnel identified and course outlines developed. However, the general insecurity in late 1997 and early 1998

about the RTTCP's continuation and that of the training component in particular, led to a rather abrupt downscaling of training activities, which had just gained full momentum during the year 1997. Coupled with the effects of the ongoing structural adjustment programmes (SAPs) in all countries under RTTCP, leading to new management approaches to government rendered services, these courses could not be implemented.

Throughout the three-year period the Training Co-ordinator travelled extensively in the Region. She liaised with Universities, Technicons, Laboratories, Management Institutes and Research Institutions in the Region and beyond. There was wide consultation on the most appropriate approach to training, specifically in tsetse control, and technical experts were consulted on courses' contents.

The Training Co-ordinator carried out her work as a member of the Regional Office management team and was supported and advised by the consultant CIRAD. She was based for 18 months at the Tsetse and Trypanosomosis Control Branch and for the second half of her term at the University, as an honorary Senior Lecturer, attached to the Department of Paraclinical Veterinary Studies.

It is the aim of this report not only to summarise the activities carried out during the Training Co-ordinator's contract period but also to give recommendations regarding the importance of capacity building in the context of regional animal disease control.

LIST OF CONTENTS

LIST OF ANNEXES

Abbreviations

ADVS	Assistant Director of Veterinary Services
AITVM	Association of Institutes of Tropical Veterinary Medicine
CIRAD-EMVT	Centre de Cooperation Internationale en Recherche Agronomique pour le Developpement – Department d'Elevage et de Medicine Veterinaire, France
EC	European Commission (of the European Union)
ECU	European Currency Unit
EDF	European Development Fund
EU	European Union
FAO	Food and Agricultural organization of the United Nations
IAEA	International Atomic Energy Agency, Austria
ILRI	International Livestock Research Institute, Kenya
IPMI	Insect Pest Management Initiative
ISCTRC	International Scientific Council for Trypanosomosis Research and Control
KETRI	Kenya Trypanosomosis Research Institute
NAO	National Authorising Officer (of the European Development Fund)
NCB	National Collaborative Body of Malawi
NCC	National Co-ordination Committee
OAU/IBAR	Organisation of African Unity/Inter-African Bureau for Animal Resources
OIE	Office International des Epizooties
RAO	Regional Authorising Officer (of the European Development Fund
RSC	Regional Standing Committee
RTTCP	Regional Tsetse and Trypanosomiasis Control Programme
SAP	Structural Adjustment Programme
TNA	Training Needs Assessment
UZ	University of Zimbabwe

1. INTRODUCTION

The Regional Tsetse and Trypanosomosis Control Programme (RTTCP) of Malawi, Mozambique, Zambia and Zimbabwe was formed in response to the re-emergence of tsetse flies during the war for Zimbabwe's independence. A three year preparatory phase began in 1986 which was to be followed by an eradication phase to eliminate tsetse from the 322 000 km^2 fly belt common to the four countries. In 1992 Phase II started, during which period the approach of *eradication* was changed to the development of a strategic plan for integrated tsetse control to support sustainable rural development. The programme was financed throughout by the European Development Fund (EDF).

As a regional programme, Phase II of the RTTCP aimed at devising a strategy to manage the disease and its vector effectively. This was to be facilitated by the delivery of certain services (training, research, technology transfer, support with strategy advice and the sustainable use of natural resources) to counter lack of resources and capacity at national level. Human resources capacity in terms of staff numbers and experience vary a lot in the countries of the RTTCP. It was, however, well recognized from the onset of the programme that "people" are the bottle-neck to successful implementation of managerial and technical recommendations at all levels. Technical training of staff was therefore an ongoing activity of all RTTCP members throughout the programme. However, a need for a distinct training programme to disseminate and apply the technical findings to the field level in support of RTTCP's aims and objectives, was clearly identified.

Such a training component was to be based at the Regional level to provide a well co-ordinated service.

The Training Co-ordinator joined the Regional Office team in October 1995, and was provided by CIRAD-EMVT, France. The Consultant has a long standing record in delivery of superior training in tropical animal diseases both in France and abroad. Its scientific potential in the field of tsetse and trypanosomosis is well documented.

2. BACKGROUND

The FAO-managed SADC Middle-level training centre in Lusaka trained field personnel involved in tsetse and trypanosomosis control in the Southern Africa Region and beyond from 1980 to early 1995. A great number of middle-level personnel collaborating with the RTTCP from Mozambique, Malawi, Zambia, Namibia and Botswana attended training courses at the school, Zimbabwe relied mainly on in-house training.

Professionals involved in the fight against the disease and its vector, i.e. biologists and veterinarians, received their *postgraduate* training mainly overseas and not specifically in the field of tsetse and trypanosomosis control.

In 1990 a Consultancy was carried out by Jewsbury[2] who identified the urgent need for a specific postgraduate training programme in "Tsetse and Trypanosomosis Control" to be made available to the Region. He said that critical shortage of middle-level and graduate manpower within the four RTTCP countries impeded the programme's implementation. He developed a concept for a MSc in "Tsetse and Trypanosomosis Control" and recommended it to be offered jointly by the Faculty of Veterinary Science, University of Zimbabwe and the School of Veterinary Medicine, University of Zambia for professionals from the SADC Region.

Based on these recommendations a post for a *Course Director* for this course was established and a three-year budget for 1.1 million ECU approved under the financing agreement for Phase II.

Administrative delays led to the post only being occupied in October 1995. In June 1995 the Mid-term evaluation of RTTCP's Phase II had taken place. It recommended a continuation of Phase II until the end of 1996 to achieve the main objective of this Phase: "*Development of a comprehensive strategic plan for an integrated strategy for the eradication and/or control of tsetse transmitted trypanosomosis.*" It further recommended that, starting in January 1997, a new regional programme should aim at *"Integrated strategic tsetse control to support sustainable rural development."*

The report pointed out that *Strategic Planning*, *Training* and *Integrated Rural Development* had been given low priority so far and that none of the allocated 1.1 million ECU for training had been spent. It criticized the narrow focus of the Course Director's Terms of Reference and the proposed location of the Technical Assistant at the University. It recommended the expansion of the Terms of Reference to include *"the facilitation of University, management, research, middle-level, social and field-level training."*

[2] Postgraduate Training in "Tsetse and Trypanosomosis Control" in the RTTCP and the SADC Region. Report of the Training Consultant J M Jewsbury, December 1990.

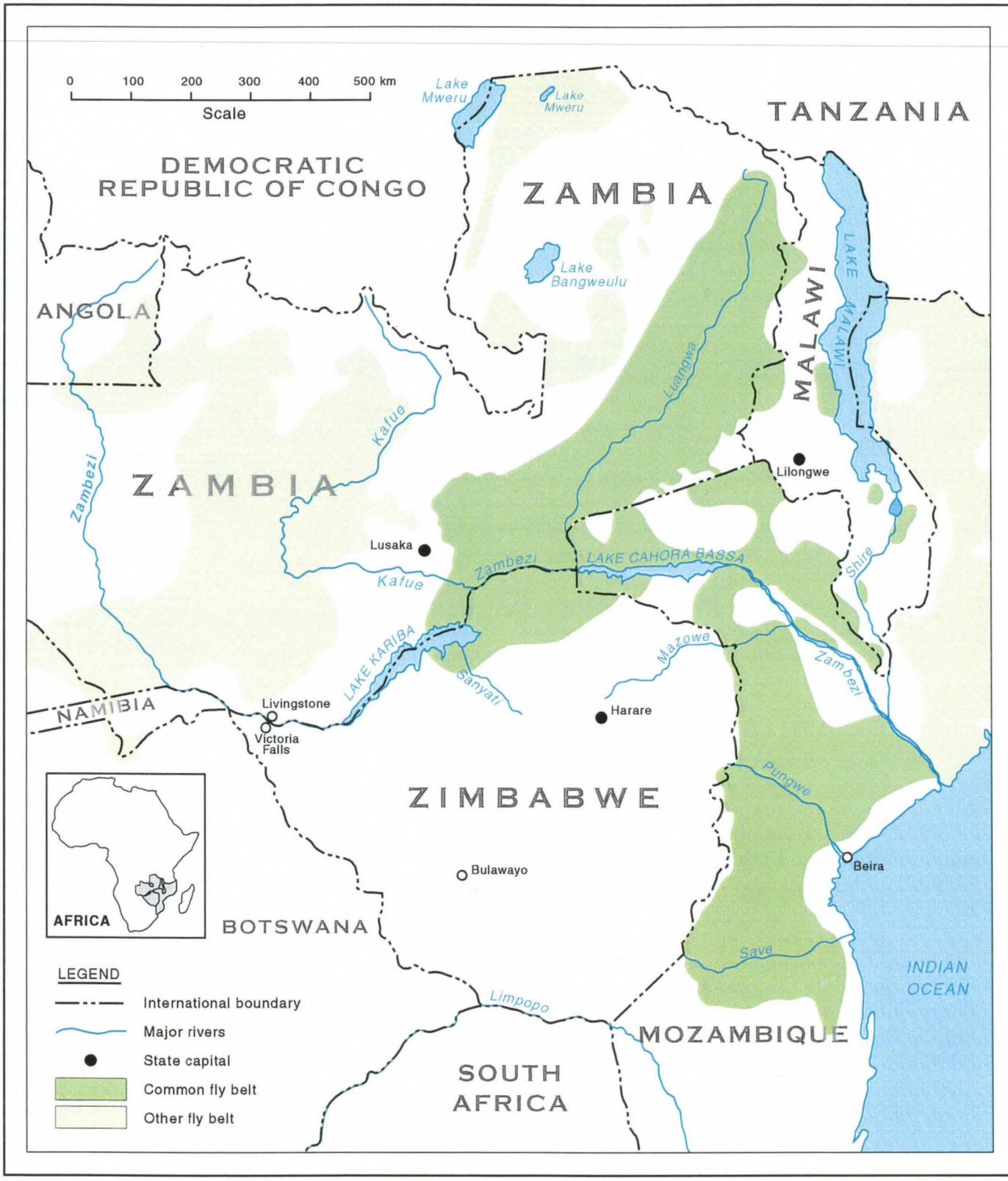
As a result the title of the post was changed from *Course Director* to *Training Co-ordinator*. It was then decided to prioritise from the list of recommended activities and implement:

- Middle-level training
- Management training
- Postgraduate training

The Terms of Reference were changed accordingly. The Management and Planning Subcommittee, the consultant CIRAD and the Technical Assistant agreed to this new approach. The mandate for the post (or Terms of Reference) is given in Annex 1.

Because of the expanded volume of the new task, it was clear from the beginning that it would not be possible to complete the postgraduate part-time course in the given three year period and that an additional budget for a fourth year would be required.

It was against this background that a long overdue structured training programme aiming at covering a wide range of activities and targeting almost all job categories involved in tsetse and trypanosomosis control, started in November 1995.



MAP 1
APPROXIMATE DISTRIBUTION OF
TSETSE IN THE SADC REGION

3. ADMINISTRATION

3.1 Personnel

Under the training budget there was provision for the employment of an Administrative Assistant and a Secretary. The latter post was occupied as from 1 February 1996, the former as from 17 February 1997. A driver was employed on casual basis from 1 February 1998 and a Tutor was employed on contract basis for each module period of the MSc Course in 1996 and 1997. The team moved from the offices of the Tsetse and Trypanosomosis Control Branch to the newly built "Block 10" of the Faculty of Veterinary Science in April 1997. Hence, the Training Co-ordinator and her support staff spent the first half of the contract time at the RTTCP offices and the second half at the University based offices. It proved to be logistically difficult to manage the University Course while being located at the Tsetse and Trypanosomosis Branch and vice versa to organise middle-level training while being located at the University and required a lot of flexibility and mobility on the side of the Training Co-ordinator.

The Training Co-ordinator's contract would have come to an end on 4 August 1998, taking annual leave thereafter. The Faculty, however, requested her services also for the last two modules, to be held in September 1998. The Regional Co-ordinator therefore issued to the consultant CIRAD a *variation of the contract*, i.e. taking her leave in July/ August 1998 and working until the end of September. The Training Co-ordinator left Zimbabwe on 1 October 1998.

3.2 Travel

There was provision under the Consultancy contract for a service vehicle, which arrived only in February 1996. The Training Co-ordinator was given a project vehicle until the arrival of this Landrover.

During the 3-year contract period 44 missions were undertaken which are summarised in Table 1. 36 regional air tickets where budgeted for under the Consultancy contract and 19 were used. This included one visit outside the Region to Kenya. In addition 19 journeys were made using the service vehicle and 6 by chartered aircraft.

One visit was made to CIRAD Montpellier France during the Training Co-ordinator's home leave in July 1997.

There was provision for three supervisory visits by the Consultant. CIRAD-EMVT appointed their Director for Training, Professor Gerard Duvallet as supervisor to this contract and he paid two visits to RTTCP in November 1996 and September 1998 respectively.

Year	Country													
	Malawi		Mozam-bique		Zambia		Zimbabwe		South Africa		Kenya		Total	
	no	days	no	days	no	days	no	days	no	days	no	days	no	days
1995			1	6	2	3	2	4					5	13
1996	1	3	2	13	4	16	7	21	1	5			15	58
1997	3	15	4	23	6	23	4	15	1	2	1	4	19	82
1998					1	6	1	7	3	11			5	24
Total	4	18	7	42	13	48	14	47	5	18	1	4	44	177

Table 1: Summary of missions during contract period

3.3 Finance

A total budget of 1.1 Million ECU was approved for and allocated to the training component of the RTTCP and was disbursed during the period January 1996 to July 1998 as summarised in table 2.

Year	Allocation		Revised Allocation	Expenditure	Balance
	ECU	Z$	Z$	Z$	Z$
1995	426 920		CIRAD Consultant contract [1]		
1996	120 972	1 482 700		458 010 [2]	1 024 690
1997	230 000	3 141 280		3 218 401	- 77 121
1998	246 000	3 148 270	4 035 071 [3]	1 963 427 [4]	983 506
Total	1 023 892				

1 Account for expenditure is given in the Consultant's end of contract report

2 Plus 852 000 committed for purchase of 2 Landrovers and one Peugeot, but only spent in 1997

3 A revision of budget allocations and an increase by 20% became necessary in the 2nd half of 1998 to counter the devaluation of the Zimbabwe Dollar

4 Until 31 July 1998

Table 2: Summary of expenditures during contract period

The total allocation in 1996/97 was spent by 97.9%. Expenditure in 1998 could only be given until the end of July at the time of this report. Allocation of funds represented 14.6% in 1996, 24.6% in 1997 and 20.2 % in 1998 respectively of the RTTCP total budget.

4. PLANNING

As a consequence of the Mid-term evaluation the results to be achieved by the RTTCP's training programme expanded drastically. Planning of all aspects involved on short- and long-term basis was absolutely essential to lay the foundation for

implementation. This process was facilitated by the recently introduced Project Cycle Management (PCM) and Logical framework method. In preparation for the definition of all Logframe categories, the planning process comprised:

- A familiarisation tour of the Region
- A situational analysis of the internal (RTTCP) and external institutional relationships
- The identification of core activities and associated activities

Hence, planning became a time consuming activity and the main points are described hereafter.

4.1 Institutional analysis

Capacity building for tsetse control has to be inter-linked into an institutional network of RTTCP's internal and regional structures and that of external co-operation partners. Only after institutional links are established, sufficient support for implementation can be mobilised.

4.1.1 Internal

The RTTCP had five main elements: four national programmes and a regional component based in Harare. The Regional Office was implemented by the Regional Co-ordinator and a team of four professional staff by September 1995. The team was expanded by the Training Co-ordinator in October 1995, a Natural Resources Advisor in 1996 and a Strategy Advisor in 1997. The Economics cum Land-use expert left beginning of 1996. The Office was supported by seven administrative staff including those two attached to the training component of the Regional Office. Funding was released by the Regional Authorising Officer (RAO) of the EDF.

In each country the programme was implemented by the respective national Veterinary and Tsetse Control Services. The RTTCP contributed Technical Advisors, capital, equipment, most of the running costs and also staff members other than Technical Advisors. In each country the National Authorising Officer (NAO) of the EDF acted as the budget controller. Annual Work Programmes and Costs Estimates were submitted to the EC in Brussels for approval.

The RTTCP was supervised by the Regional Standing Committee (RSC) composed of representatives of all four countries, the affiliates Namibia and Botswana, the Donor, SADC, RAO and the Regional Co-ordinator. Each National Programme was co-ordinated by a National Co-ordination Committee representing various ministries and departments with a stake in tsetse control and the Donor. Regional co-ordination was implemented through the RSC, but delegated to the Regional Co-ordinator. Supervision of the implementation was facilitated by Subcommittees of the RSC namely, the Subcommittee for Management and Planning, Subcommittee for Human Resources

Development and the Technical Subcommittee. Each Subcommittee was composed of representatives of different countries. The HRD Subcommittee members were Zimbabwe and Namibia. Figure 1 summarises these relationships in an organisational chart.

Directors of Veterinary Services (DVS) and Assistant Directors for Tsetse Control (ADVS) had been members of the RSC. At the special meeting of the SADC's Livestock Technical Committee in October 1996 it was agreed, that as from 1997 the ADVSs should be the key members of the RSC, since the DVSs were members of the SADC Committee already. It was proposed that the RSC should become a Subcommittee of the SADC Technical Committee and should deal with all matters related to the control of trypanosomosis in the Region. This proposal, however, was not presented to the SADC Council of Ministers in 1997 for approval.

During the RSC meeting in October 1997 it was agreed that 825 000 ECU bridging funds were needed to ensure the continuation of ongoing RTTCP activities until further decisions on the RTTCP's closure would have been taken. About 45% of these funds were allocated to the continuation of the training programme including an extension of the Training Co-ordinator's contract, as had been recommended by the RSC.

In March 1998, before these funds had been approved, the Management and Planning Subcommittee met "to review the financial situation and continuity of implementation". The committee focused its attention on the RTTCP's training programme alone and only on the postgraduate part of it and agreed, that "to increase funds available for the training programme, the Technical Assistant contract for the Training Co-ordinator should not be extended". This agreement was acted upon as a decision. The authority of this Subcommittee to make such a decision was subsequently questioned by the SADC Task-force assisting the preparation for a new Regional programme, by the Human Resources Development Subcommittee and by the MSc students. It was stressed that Subcommittees should make *recommendations* to the RSC and not take *decisions*, when it comes to contractual and programme extension issues. This led to the request for a "special RSC meeting" by the HRD Subcommittee before the departure of the Training Co-ordinator. This meeting did not take place.

The ongoing debate on the continuation of the training programme with all its components and the possible extension of her contract, coupled with the insecure future of RTTCP until the approval of the bridging funds in May 1998, left the Training Co-ordinator in a state of suspense from March to August 1998. This in turn, led to re-planning and to a massive scaling down of planned activities, focus on the handing-over of postgraduate training to the University and the termination of middle-level and management training.

The situation as described above, underlines that the institutional links between the Regional Office, the RSC, its Subcommittees, SADC and its Technical Committee are not yet clearly established. There is a need to establish clear responsibilities, decisive powers and chain of command amongst these partners.

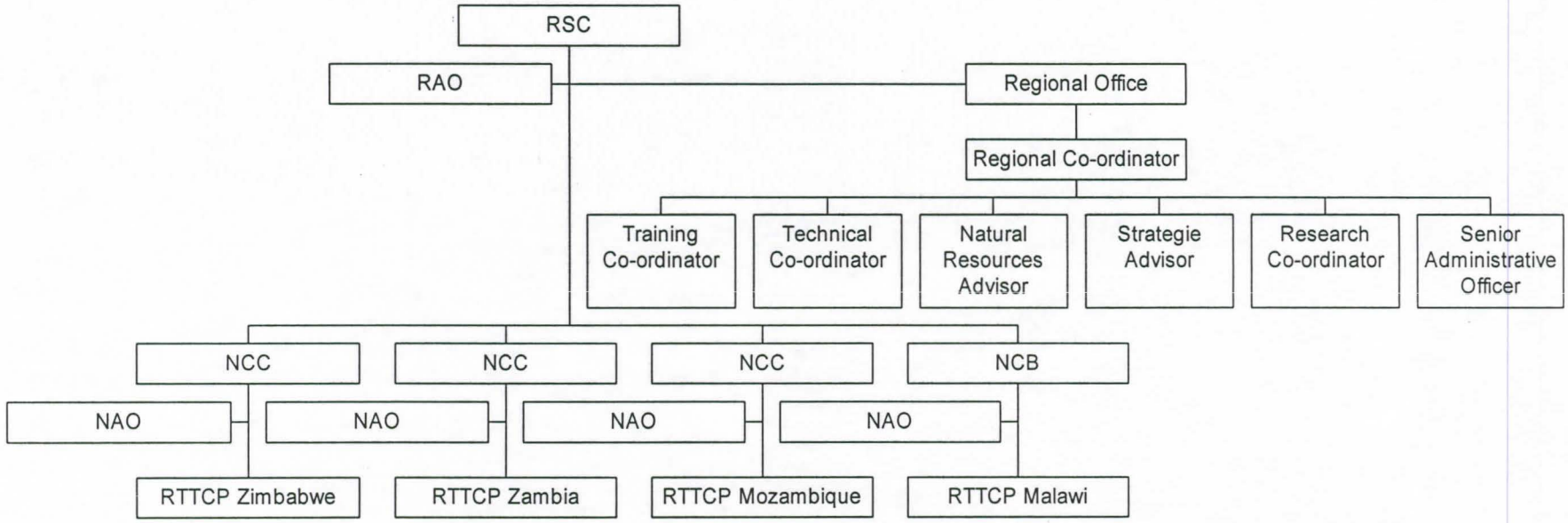


Figure 1: Organizational chart of the Regional Tsetse and Trypanosomosis Control Programme

Key:

RSC	-	Regional Standing Committee
RAO	-	Regional Authorising Officer
NCC	-	National Co-ordination Committee
NCB	-	National Collaborative Body
NAO	-	National Authorising Officer

4.1.2 External

A number of institutions were contacted during the planning period and relationships at different levels of co-operation developed over the three years implementation period.

- Universities in the SADC Region:
  Faculty of Veterinary Medicine, University of Pretoria, in particular Department of Veterinary Tropical Diseases;
  Faculty of Veterinary Medicine, Sokoine University of Agriculture, Tanzania;
  Faculty of Veterinary Medicine, Eduardo Mondlane University, Mozambique;
  School of Veterinary Medicine, University of Zambia, Zambia
  Purpose of collaboration: exchange of ideas on curriculum development; exchange of lecturers and external examiners for the MSc "Tsetse and Trypanosomosis Control"; the development of a "Regional MSc".

- Research Institutions:
  International Livestock Research Institute, Kenya (ILRI)
  International Centre for Insect Physiology and Ecology, Kenya (ICIPE)
  Kenya Trypanosomiasis Research Institute (KETRI)
  Centre de Coopération Internationale en Recherche Agronomique pour le Développement – Département d'Elevage et de Médicine Vétérinaire, France (CIRAD-EMVT)
  Purpose of collaboration: continuous supply with updated information on tsetse and trypanosomosis relevant research findings; supply with teaching material; recruitment of lecturers for MSc "Tsetse and Trypanosomosis Control".

- Training Institutions at different levels:
  Veterinary Training Institute, Mazowe, Zimbabwe
  Zambia Institute of Animal Health, Masabuka, Zambia
  Malawi Institute of Management
  PMTC (Management Consultant, Lusaka, Zambia)
  OTD (Management Consultant, Harare, Zimbabwe)
  Zimbabwe Institute of Management
  Purpose of collaboration: discussion, exchange and assistance on middle-level and management training curricula development.

- Government Departments of Tsetse and Trypanosomosis Control:
  The knowledge of size, number of staff and institutional interlocking of the Tsetse Departments into the respective Ministries in each country is a prerequisite for planning. An inventory of the past, present and future in-house training activities is also essential. The existence and role of a Training Officer is additional important information. Organograms, staff lists, lists of training courses attended were acquired and meetings with Training Officers were held during the planning period.

Purpose of collaboration: avoiding duplication of efforts, integration of RTTCP training plans into ongoing Government activities, feedback from Government Departments.

4.2 Identification of Core activities

During the planning period the core activities which are linked to the achievement of the three sub-results of the training programme, were identified and are listed hereafter.

Middle-level training

- Training Needs Assessment (TNA) to identify priorities for the delivery of technical training
- Development of criteria and curricula for short courses addressing different levels of knowledge
- Development of criteria for candidate selection
- Facilitation and co-ordination of national training activities
- Identification and recruitment of lecturers
- Recognition of RTTCP Certificates through SADC-HRD Sector Swaziland

Management training

- Training Needs Assessment to identify prioritised subjects for the delivery of management training
- Identification of on-going structural adjustment programmes and the resulting changes in management styles
- Identification of management training institutions with appropriate training offers

Postgraduate Training

- Revision of curriculum based on Jewsbury's report and adjustments to identified needs for professionals from the Region
- Advertisement and public relation for the course in the Region and beyond.
- Integration of course administration into the existing Faculty structures/ Committees and establishment of additional committees
- Selection of candidates for MSc/Postgraduate Diploma and Occasional Student RTTCP Scholarships
- Search for external sponsorship
- Recruitment of lecturers

4.3 Identification of Associated Activities

RTTCP professional staff at regional and national level have been engaged in technical training throughout the programme's period. The on-going activities and those of other collaborating Organisations/Institutions were to be integrated into the RTTCP's training programme.

- IPMI (Insect Pest Management Initiative) supported training in Zambia and Zimbabwe
- OIE supported proposal for a network for training in Veterinary diagnostics
- Inter-University agreements for collaboration

It was only after the above listed institutional analysis and identification of core and associated activities, that a Time-plan of Action over the three year period extending into a fourth year for the completion of the postgraduate training programme, could be established. A detailed yearly schedule was deduced from the overall time plan for each Annual Work Programme and Cost Estimate. The four-year time plan of action is summarised in Figure 2.

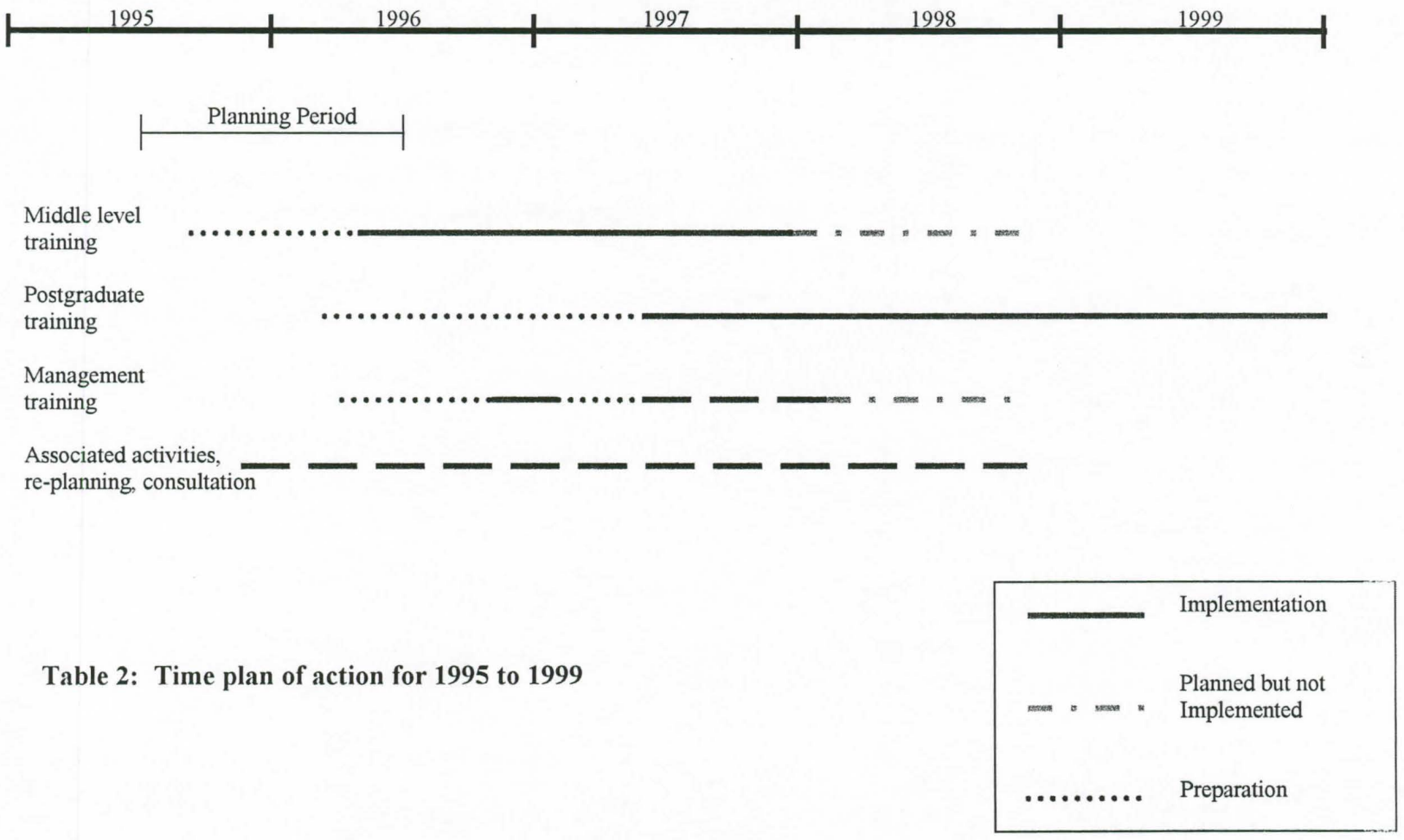


Table 2: Time plan of action for 1995 to 1999

5. IMPLEMENTATION OF CORE ACTIVITIES

Implementation of the training programme at regional level required strict adherence to the time plan of action. This chapter describes the main principles to implement the *core activities* to achieve the three sub-results. Chapter 6 describes the implementation of associated activities. Details are given in the annexes.

5.1 Middle-level training

5.1.1 General

After the closure of the FAO SADC Middle-level training centre in Lusaka, there was no other Institution in the Region offering specialised continuous training in tsetse and trypanosomosis control. It was therefore logical for the RTTCP to fill this gap. Middle-level training then became a very important part of the RTTCP's Training Programme.

5.1.2 Training Needs Assessment

To establish the different needs for middle-level training in the RTTCP countries, information was required on the size of the respective departments, staff numbers and qualification, job descriptions and further training background. With this information available, a Training Needs Assessment for staff in Zambia, Malawi, Mozambique, Zimbabwe, Namibia and Botswana was carried out[3]. Although this assessment focused on technical middle-level personnel, information on professional staff was also collected, wherever possible, to complement the information contained in the Jewsbury report.

Lists of prioritised training needs were established for each country. From those, *common needs* were identified, ranked and called *Regional Needs*, the remaining subjects were termed *National Needs*. RTTCP training courses were focused on *Regional Needs*, whereas National Departments were encouraged to attend to *National Needs*. However, facilitation and support by the RTTCP would be offered. A summary of the TNA results is given in Annex 2.

The results of the 1996 Training Needs Assessment were re-assessed by the Training Co-ordinator during a visit to all countries in early 1997 and were found still to be valid.

5.1.3 Course principles

Based on the recommendations of the HRD Subcommittee, guidelines for middle-level training were established. They took into account the following matters:

[3] Report on two Training Needs Assessment Workshops. Robert Haunsell, Nutac Training, Harare, Zimbabwe, February 1996.

- Course levels:
  Four different course level curricula were designed to meet the needs at basic, medium, advanced and specialised knowledge levels.

- Advertising and public relations:
  Each course was announced by a "Course brochure" giving objectives, contents, duration, and admission requirements. Course brochures were distributed widely in the Region.

- Selection of Candidates:
  In close collaboration with the national departments and national RTTCP managers, candidates were selected.

- Course methodology:
  The setting of courses was short-term (one week to ten days), field based, practically oriented, participatory. They were composed of an introduction to the RTTCP programme, the technical contents and wherever possible a "Train the trainer" component, a test and certification.

- Course contents:
  Annex 3 gives the description of all middle-level training courses which were offered in 1996/97. In general all courses' main subjects were derived from the prioritised list of training needs. There was strong emphasis on the standardised methods promoted by RTTCP especially in the field of:
  - Trypanosomosis diagnosis
  - Data recording and reporting
  - Use of the ITTD database (later replaced by DAVID)
  - Appropriate use of target technology

  All courses were described in detail in the respective course reports, which were distributed to the participants and their superiors as reference. Reports also contained most of the teaching materials.

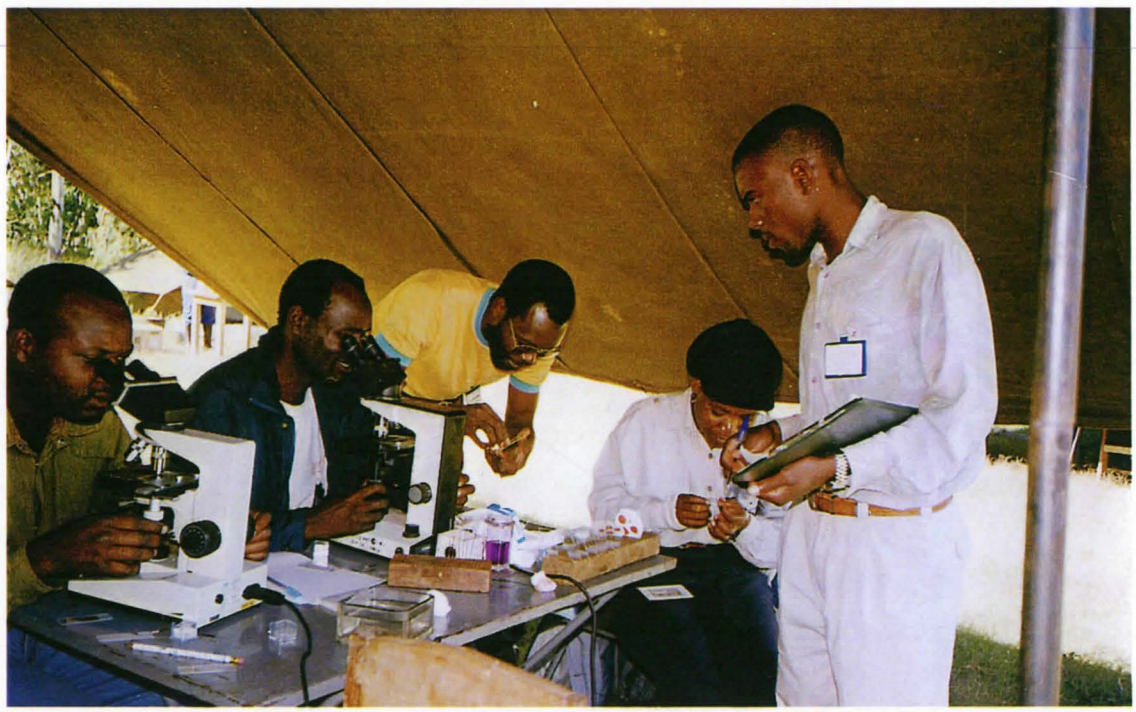
- Participants and resource people:
  Approximately 16 – 24 people participated in the field-based courses. Specialised courses were attended by fewer people. Travel to and from the training location, accommodation and a daily subsistence allowance were organised and provided by RTTCP. In 1996 courses were delivered mainly by expatriate staff until eventually a pool of local expertise had been identified and established. In 1997 courses were predominately delivered by resource persons from the Region. Annex 4 gives the list of resource persons involved in middle-level training.

- Regional Training Database:
  A database using MS Access was established to store all information on participants, resource persons and course documentation. This database was to facilitate easy reference to an individual's training career as well as an overview of all training activities.

"Tsetse survey techniques", Cochemane, Tete Province, Mozambique, May, 1996.

Training needs assessment, Veterinary Training Institute, Mazowe, Zimbabwe, January, 1996.

"Trypanosomosis survey", Chiawa, Zambia, June, 1996.



"Trypanosomosis survey", Kasungu, Malawi, April, 1997.

Ground spraying operation. Field visit to Doma, Zimbabwe, September, 1997.

"Tsete control: traps, targets and odours", picturesque impressions from middle level training courses. Rekomitje Research Station, Zimbabwe, June, 1997.

5.1.4 Certification

Upon successfully passing a test at the end of each middle-level training course, participants were awarded a *Certificate of Competency,* those who failed the test received a *Certificate of Attendance*. The certificates were issued by the RTTCP. Acceptability of these certificates by the respective national Public Service Commission was discussed at the HRD Subcommittee meetings. Through the SADC Livestock Sector Co-ordinator, an appeal was made in June 1996 to the SADC HRD Sector for recognition of the RTTCP certificate and/or issuing of SADC certificates. A decision was deferred until finalisation of regional certification through SADC; this did not materialise before completion of this report (September 1998).

5.1.5 Evaluation

Middle-level training targeted field personnel. This group is usually based in remote areas and it takes time for a new training programme such as that of RTTCP to become known. However, the word spread quickly and from June 1996 to June 1998 a total of 40 enquiries from ten countries in excess of those appointed by national departments were received for the attention of middle-level training courses. This continued interest could be interpreted as an indirect proof of the need for these courses and an appreciation of their quality.

A more formal way of evaluation was done through questionnaires given to the participants at the end of each course. The analysis revealed that the concept of the course in terms of duration, suitability of the venue, time management (practical versus theory) and accommodation was well accepted. In general, participants developed a lot of enthusiasm and team spirit during the courses and, possibly triggered by the anticipation of an examination, a lot of motivation to learn. The performance of resource persons was assessed by the Training Co-ordinator and other senior staff. An analysis of this assessment was compiled was sent to the resource persons for personal feedback.

5.2 Management Training

5.2.1 General

The Mid-term evaluation report stated the need for RTTCP personnel to receive management training. The Training Needs Assessment carried out for middle-level government personnel also revealed that they require management skills and management training was ranked as a high priority. After consultation with different management training institutions, four priority target groups were identified and appropriate managerial skills for each group were selected. The following proposals were made:

1. Regional Office staff: *Team development*
2. Regional key players: *Regional communication network development*

3. Government personnel: *Management skills identified in training needs assessment*
4. Participants of MSc Course: *Management sub-module*

On behalf of the OAU/IBAR another workshop on Project Cycle Management / Logical Framework was organised as a management training activity (section 5.2.4).

5.2.2 Course principles

The area of management skills training is such a wide field that complete coverage was certainly beyond the scope of the RTTCP's training programme. The strategy applied was to find key skills needed by the four target groups and to engage suitable institutions to deliver the specialised type of training. In the case of target group 1, 2 and 4, focus was specific enough for direct implementation. In case of target group 3 (Government personnel) all information available e.g. from the technical Training Needs Assessment was too unspecific for designing courses.

5.2.3 Training Needs Assessment

Seven Training Needs Assessment workshops were carried out by consultants from the Region in Mozambique, Zambia, Zimbabwe and Malawi in April to May 1997[4]. All workshops were well attended by government officers from the respective Veterinary and Tsetse Control Departments.

The analysis was based on a questionnaire listing the 20 most relevant managerial skills. Again the needs common to all countries were ranked and the five priority training needs were recommended for delivery to government personnel. In Annex 5 a summary of the TNA recommendation is given.

5.2.4 Courses/Workshops/Seminars

This chapter describes the activities which were actually implemented under the sub-result "Management training". As they vary so greatly in form and content, they are listed individually.

- *Team Development* [5]
  2- 4 December 1996, Mazvikadei, Zimbabwe

Advisors in the Regional Office are working as professionals, largely autonomous in their own field of specialisation. Team Development skills were identified to be of importance to overcome "discipline barriers". The result of the course was to be a "tool kit" of both leadership and team working behaviours to increase team efficiency. Main emphasis was put on improvement of communication skills.

[4] The results of the "Establishing Management Training Needs Workshops" organised for RTTCP and held in Malawi, Mozambique, Zimbabwe and Zambia, April to May 1997. Nutac Training, Harare 1997
[5] Report on the Team Development Workshop for RTTCP, 2- 4 December 1996, OTD Harare

- *Regional Communication Network Development* [6]
  17 – 19 June 1997, Harare, Zimbabwe

During the Regional Standing Committee meeting in Pretoria 1996, the development of a *Regional Communication Network* had been strongly supported. A workshop was therefore organised in June 1997. During the 3-day meeting that was attended by 28 delegates from Malawi, Zambia, Namibia, Mozambique, Zimbabwe, South Africa, Botswana and Kenya, it was concluded that a communication network owned and carried collectively by the subscribers would be highly desirable. Terms of Reference for this network and organisational structure were formulated and agreed upon. The internal organisation (governance) and the workgroups to supply or request information were outlined. The consultant facilitated the formulation of a Logical Framework for an initial 3-year phase of operation during which exchange of information should be limited to tsetse and trypanosomosis control in the SADC Region.

The Training Co-ordinator presented this proposal to the RSC meeting in Maputo, September 1997. The adoption of the proposed Communication Network was recommended for any new Regional programme to follow the RTTCP.

- *Management Training for Government Personnel*

Implementation of management training workshops based on the findings of the Management Training Needs Assessment (5.2.3) was planned to start in the second half of 1997. Restructuring of government departments had gained full momentum by mid 1997 in most countries of the RTTCP and there was a general feeling of insecurity about the future of civil servants. It was felt that management training for government personnel would be more sensible when carried out within the framework of the new structures still to be established. Courses were therefore postponed to 1998.

- *MSc Course Management sub-module* [7] [8]
  17 – 28 November 1997, University of Zimbabwe, Harare

The result of the Management Training Needs Assessment were implemented during this two-week sub-module of the third MSc module. Besides *General Management skills* the sub-module contained a 3-day intensive course on *Project Cycle Management – Logical Framework* and a two-day course on *Management of large scale Tsetse Control operations.*

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[6] Final Report on a Proposal for a Regional Communication Network, co-ordinated by RTTCP. Dr F V Goericke, Harare, June 1997

[7] Reference Paper for "Project Cycle Management" (PCM) and "Logical Framework Method", Dr G V Goericke, 29.5.98, Harare

[8] Management Training, University Lodge, Harare, Zimbabwe, 20 – 26 November 1997, PMTC Zambia

- *Project Cycle Management – Logical Framework Workshop* [9]
  22 – 25 September 1997, ISCTRC Maputo, Mozambique

On behalf of the OAU/IBAR the RTTCP Training Department organised a 4-day training course for senior managers during the week preceding the bi-annual ISCTRC conference, held in Maputo on 29 September to 3 October 1997. Traditionally this training workshop focuses mainly on technical training of junior professional personnel. The RTTCP however, proposed to change the target group to senior managers to address two of the most important aspect in today's work in development: *the management of people and resources.*

The course was attended by 17 participants from 12 countries in Southern, Central and Eastern Africa and the feedback was very positive. Participants recommended to the ISCTRC Executive Committee that a follow-up course should be held. Participants were presented with certificates by the Mozambique Minister of Agriculture and Fisheries during the opening ceremony of the 24th ISCTRC meeting on 29 September 1997.

5.2.5 Evaluation

Evaluation of all training events and workshops was done by anonymous questionnaires and the analysis was included in the respective reports. It is worthwhile noting that the team development workshop was the only training activity the RTTCP Regional Office staff ever participated in together and this was greatly appreciated.

The MSc students were very enthusiastic about this exposure to skills other than technical ones and embarked on an assignment of improving their management style during 1998.

5.3 Postgraduate Training

5.3.1 General

Dr Jewsbury's consultant report on postgraduate training in tsetse and trypanosomosis control recommended the first intake of students in March 1991 in order to train sufficient professional personnel for the implementation phase of RTTCP. Any delay in the start of the programme would reduce the output drastically. The report also states that "the success of the course will rest substantially on the Course Director. It is unlikely that University staff in the Region have the detailed experience of tsetse and trypanosomosis or the time available for the detailed planning and organisation of courses and the extensive travel, which will be necessary. It is therefore recommended that a full-time Course Director ...be responsible for all aspects of the training programme." [10]

[9] Report on the training workshop for Project Cycle Management, the Logical Framework method for project planning,monitoring and evaluation, held in Maputo, 22-25 September 1997, Dr F V Goriecke, Harare October 1997.

[10] Jewsbury's report, p. 41

Although these recommendations were based on thorough analysis of the manpower situation and development in the Region at that time, the postgraduate training programme only started in May 1997 and the Training Co-ordinator left the programme in September 1998 before the completion of the Course. It is against this background that only the first two years (Course-work part) of the MSc Course are reported below.

5.3.2 Concept

The MSc/Postgraduate Diploma in "Tsetse and Trypanosomosis Control" is a part-time study, hence mainly targeted at professionals already working in this field. Compared to the classical full-time one to two year MSc study, it aims at bridging the gap between the academic world and the field situation in tsetse control. In its modular structure it offers three *core modules* of four weeks duration in the first year to all participants. In the second year of studies, participants can opt for either the *Tsetse* or the *Trypanosomosis Unit* according to their preference or specialisation. During the second year opportunity is given to well experienced senior non-graduates to attend single modules as *Occasional Students* and to be awarded University Certificates.

In between modules participants return to their workplaces, whilst at work they are given practical assignments on which they have to report back beginning of the next module.

Upon successful completion of the Course-work part (Year 1 and 2) participants not proceeding to the third year will be awarded a *Postgraduate Diploma in Tsetse and Trypanosomosis Control.* The *MSc degree* will be awarded after successful completion of the third and final research year and acceptance of the dissertation.

5.3.3 Administration

The Course's management in terms of logistics, administration and finance was done through the Training Co-ordinator's office. The training budget contained all provisions for scholarships, stipends, travel and transport and honorarium for lecturers. In addition to the RTTCP budget, a full external sponsorship was obtained from Bayer Germany for one student from Zambia. One Occasional Student from Tanzania was sponsored by IAEA Vienna, Austria to attend two Modules.

Discussion on and management of all academic matters was done in close collaboration with the Department of Paraclinical Veterinary Studies, to which the postgraduate programme was attached to. Progress of the course was reported on during regular Departmental Board meetings and occasionally at Faculty Board meetings.

The training team once established at the University of Zimbabwe, was fully equipped in terms of office equipment and vehicles to operate autonomously. Occasionally support with additional vehicles was given by the Regional Office.

5.3.4 Participants

A first announcement describing the Courses objectives, structure and contents was published and distributed in the Region and beyond in July 1996. This was followed by a second announcement in November 1996 (Annex 6).

A total of 21 applications from seven countries were received. A Selection Committee[11] awarded 14 scholarships (13 RTTCP, one Bayer, Germany) to suitable candidates from Zimbabwe, Zambia, Botswana, Mozambique, Tanzania and Uganda (Annex 7). One candidate had opted for the Postgraduate Diploma, the others for the MSc degree. The Diploma candidate however, resigned after the first Module because of ill health. Two Occasional Students from Zambia and Tanzania were also admitted during the first year. During the second year, one MSc Student died, leaving a group of 12 full-time students. A total of 12 Occasional students were admitted to attend one or several modules during the second year. All MSc students except the three Zimbabwean Veterinarians had working experience in the field of tsetse and trypanosomosis control. The Zimbabwean Veterinarians, however, are based in potential tsetse areas which were cleared but are under continuous survey. All participants were able to relate the theoretical contents to their field of experience and were able to carry out practical assignments in between modules.

5.3.5 Contents

Core subjects of the curriculum had already been suggested in the Jewsbury report. Based on these recommendations, the course outline was designed by the members of the Faculty and had been accepted by the Academic Senate in 1995. The Course was first published in the University of Zimbabwe 1996/97 Calendar. The curriculum was reviewed by the Training Co-ordinator and the members of the HRD Subcommittee and amended to include or give more emphasis to subjects identified in the TNA. More emphasis was given to the standardised methods promoted by RTTCP[12], furthermore to report writing and computer training. Because of the short duration of the modules and volume of subject matters to be taught, most of these studies were offered at the Faculty. Occasional field visits were organised to give students opportunities to practice. Assignments in between modules during the first year were closely related to participants' job descriptions and promoted the practical implementation of knowledge acquired during the modules. Assignments during the second year were all set in preparation for the research proposal.
Each module has a distinct subject and its structure and contents allow for a "stand alone course". This made these modules suitable for interested and well experienced non-graduates to attend. Table 3 shows the different module subjects and contact hours taught in these courses. Annex 8 gives the syllabus for all modules.

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[11] The Selection Committee consisted of: the Dean, Regional Co-ordinator RTTCP, Chairperson Department of Paraclinical Veterinary Studies, Representative Parasitology Department, Faculty Administrator, Training Co-ordinator RTTCP

[12] Trypanosomosis diagnosis, data recording and reporting in standardised formats, use of the ITTD database (later replaced by DAVID), appropriate use of target technology

Year 1 (1997)			Year 2 (1998)					
Core Modules			Tsetse Unit			Trypanosome Unit		
Mod [1]	CH [2]	Subject	Mod	CH	Subject	Mod	CH	Subject
1	80	Perspectives of T&TC [3]	4	96	Tsetse biology	7	87	Trypanosome biology
2	80	Planning of T&TC	5	99	Tsetse survey	8	99	Trypanoso-mosis survey
3	123	Analysis, reports and management	6	75[4]	Tsetse control	9	75[4]	Trypanoso-mosis control

[1] Module, [2] Contact hours, [3] Tsetse and trypanosomosis control, [4] plus one week excursion to different control areas

Table 3: Summary of modules delivered during 1997/98 and number of contact hours

During the first year Veterinarians and Biologists participated together in the three *Core Modules*. The main aim was to level out their knowledge differences and lay a solid foundation of veterinary and biological matters with the respective non-professional group. During the second year students chose between the *Tsetse* and *Trypanosomosis Unit*. Seven Veterinarians and six Biologists constituted the respective units allowing for three and four Occasional Students respectively to attend modules in each Unit.

The contents were presented by experts in the field of tsetse and trypanosomosis from Universities, Research Institutions and private firms from the Region and beyond. The main input was made by RTTCP professional staff, KETRI, ILRI, University of Zimbabwe and University of Zambia to name just a few. A total of 60 lecturers from eight countries contributed to the delivery of the Course-work part (Annex 9).

The RTTCP sponsored the participation of 15 students in the ISCTRC conference in Maputo on 29 September to 3 October 1997. During the last modules, 20 students attended the AITVM conference, held in Harare on 14 to 18 September 1998. Their participation was funded partly by RTTCP and partly by the Delegation of the EC in Zimbabwe.

5.3.6 Examination

Regulations for examinations for this MSc/ Postgraduate Diploma degree are laid down and are published in the UZ Calendar. The Course-work part is assessed by an examination Part I at the end of the first year and an examination Part II at the end of the second year. Marks are allocated for theory (40%), oral (10%), practical (20%) and continuous assessment (30%). Continuous assessment consists of marks for protocols on selected lectures, presentations of case studies (both written and oral), assignment reports and tests on selected topics. Students may continue into the following year only after successfully passing these examinations. At the end of the third year the degree will be awarded after acceptance and satisfactory defence of the dissertation.

In 1997, all students passed examination Part I. Examination Part II takes place after this reporting period in November 1998.

Occasional Students were examined on all subjects at the end of the module they attended. Annex 10 lists performance of all 12 Occasional Students. Upon successfully passing these examinations a University *Certificate of Attainment* was awarded to the Occasional Students.

5.3.7 Research Work

The third year of the Course is allocated to the Research-work. This period will be preceded by a final 10th module in February 1999 on *Scientific Writing and Research Methodology.* This module will be followed by seven months field work and three months for writing of the dissertation, followed by the final examination in December 1999.

Preparation for Research-work started during modules 4 & 7 in February 1998. A discussion with all professional staff from the Regional Office and representatives from the Faculty gave the opportunity to participants to form ideas for their individual research topics. Thereafter regular meetings were organised with the Training Co-ordinator, Deputy Dean, Head of Department and other professionals. Students then developed their ideas. In May the first draft proposals were discussed with a wide range of advisors and several seminars were held, where guidelines for the writing of the final proposal were given. By the end of the May modules all, expect one student, had decided on a research topic and had, on several occasions, discussed the broad concept with his /her University and Associate Supervisor/s. Annex 11 gives a list of the research topics, names of University Supervisors and Associated Supervisors. The final proposals and budgets were submitted in August and approved by the Department in September. A research budget of US$ 5000 was made available by RTTCP for each research project .

For some proposals the set time frame of seven months fieldwork was not sufficient. In these cases students will start their experiments after the last modules in September 1998 and extended their research period by up to four months. Supervision, time management and administration of the 12 research-works was handed over to the designated counterparts to the Training Co-ordinator, the Head of Department Paraclinical Veterinary Studies and the Deputy Dean (Annex 14).

5.3.8 Evaluation

Throughout the Course-work students' and lecturers' performance was evaluated. Students were assessed on a continuous basis and by final examination. There was opportunity during group meetings and individual meetings with the Training Co-ordinator to discuss problems and difficulties. The Tutor and the elected students' spokesperson also assisted in counselling. None of the students showed any major performance problem or difficulty to keep up with the studies.

Lecturers' performance was assessed by means of questionnaires filled by students twice per Module. Questions aimed to assess:

- Lecturer's ability to present the subject well and interestingly
- Relevance of the subject presented to students' work situation / interest
- Time management of lecturers
- Lecturer's ability to adjust to different background knowledge of students
- Quality of handouts
- Students level of confidence gained.

Returned questionnaires were analysed and then compiled into a report. On request they were made available to the lecturers.

Management of the course and progress of the studies were reported regularly to the Departmental Board, the RSC and the HRD Sub-committee. Their feedback served as the evaluation for the Training Co-ordinator and amendments were made accordingly.

"Tsetse and Trypanosomosis Control", picturesque impression of the MSc students, Faculty of Veterinary Science, University of Zimbabwe, September, 1998.

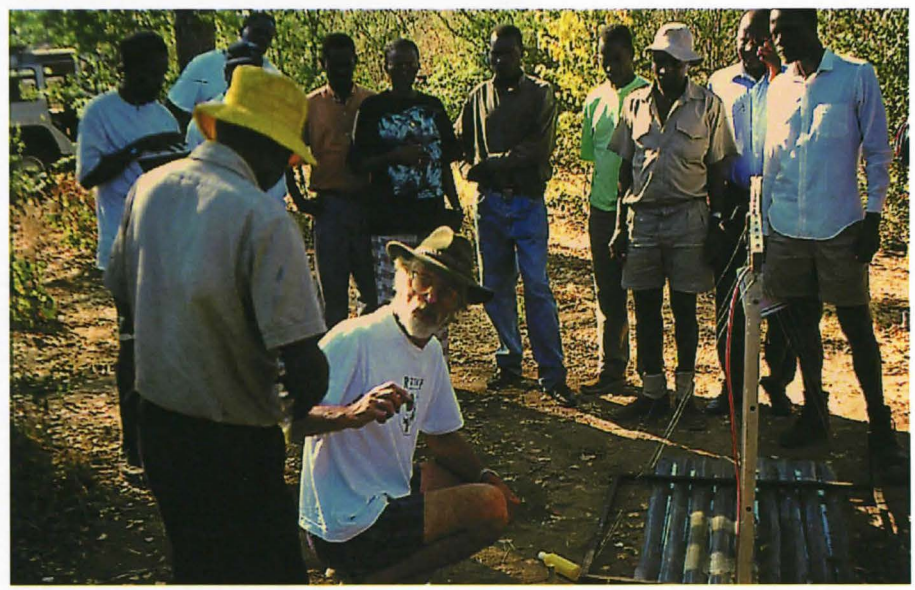
From left to right:

Mr Cornelius Mweempwa, Zambia
Mr Chenjerai Njagu, Zimbabwe
De Peter Van den Bossch, RTTCP Technical Co-ordinator
Mr Andrew Chamisa, Zimbabwe
Mr Gideon Kasilagila, Tanzania
Mr Sikhumbuzo Modo (back row), Botswana
Mr Desman Chigoma (front row), Zimbabwe
Mr Paradzai Muzavazi (back row), Zimbabwe
Mr Inocencio Sigauque (front row), Mozambique
Mr Lewis Tembo (back row), Zambia
Mr Linous Munsimbwe (front row), Zambia
Dr Susane Münstermann, RTTCP Training Co-ordinator
Dr Samson Mukaratirwa, Deputy Dean
Dr Robert Connor, RTTCP Regional Co-ordinator

Technical tour to assess tsetse control operation in the region: Kotwa, Zimbabwe, September, 1998

Technical tour to assess tsetse control operation in the region Petauke, Zambia, September, 1998.

Trials on the persistence of pour-ons using different formulations of synthetic pyrethroids.
Rekomitje Research Station, Zimbabwe, May 1998.



Testing the effect of repellents versus odour attractants using electric nets.
Rekomitje Research Station, Zimbabwe, May 1998.

Counting tsetse that were caught in the experiments. Rekomitje Research Station, Zimbabwe, May 1998.

From left to right:
Mr Luis Tembo, Zambia
Mr Andrew Chamisa, Zimbabwe
Mrs Anette Nassozi, Uganda

6. IMPLEMENTATION OF ASSOCIATED ACTIVITIES

Through meetings and discussions the Training Co-ordinator was involved throughout her assignment in other ongoing RTTCP activities. There were however, some specific ongoing activities and those which developed over this period that were integrated into the training programme.

6.1 OIE sponsored workshop on "Training in Veterinary Diagnosis"
4 – 8 March 1996, Matopo Hills, Zimbabwe[13]

During an OIE[14] sponsored workshop in June 1995 to consider the requirements for a sustainable Veterinary diagnostic service in Southern Africa, it was recognised that training, communication and regional collaboration are prerequisites for sustainability.

A follow-up workshop to deal with training in Veterinary diagnostics was held in March 1996, supported by the RTTCP's Regional Office and organised by the Training Co-ordinator. The workshop was attended by 26 participants from eight different countries, representing all six Veterinary Faculties in SADC, several technical colleges and major Veterinary Laboratories. Consensus was achieved that the provision of effective training in Veterinary diagnostics is crucial to the appropriate provision of diagnostic services. It was recommended that a Training Needs Assessment should be carried out and that training facilities in the Region should be assessed before any further progress could be made. At the end of the workshop it was agreed that a follow-up meeting should be held. Unfortunately, during the Training Co-ordinator's reporting period, this follow-up workshop did not take place. However, the recommendations by the June 1995 and March 1996 workshops were taken up when planning for the Regional MSc (see 6.3).

6.2 Institutional strengthening of Middle-level Training Institutions

Failure to find sufficient funds and institutional embedding for the FAO/ SADC Middle-level Training Centre Lusaka, after donor funding ceased, has shown clearly that middle-level training should not be supported only by a self-contained project. The need and demand for this type of continuous training is well documented. Its institutional linkage to local structures has to be established at an early stage to achieve sustainability and guarantee continuation.

The Training Co-ordinator had discussions with the Principals of the Veterinary Training Institute, Mazowe and the Zambia Institute of Animal Health (ZIAH) Mazabuka, Zambia. An integration of middle-level training in tsetse and trypanosomosis into either the existing curricula or the design of special short courses to be offered during vacation periods was envisaged. Participation of Tsetse Field personnel from the Region was to be allowed. Keen interest in this proposal was expressed by both institutions. The amount

[13] Report on a Workshop on Training in Veterinary Diagnostics in Southern Africa. 4-8 March 1996, Matobo Hills Lodge, Zimbabwe
[14] Office International des Epizooties

of work involved to institutionalise middle-level training courses in tsetse and trypanosomosis control at these two and possibly other training institutions in the Region however, was beyond the possibilities of the Training Co-ordinator. It was therefore suggested to involve a consultant such as FAO to establish ways and means to transfer project driven middle-level training to national training institutions in the Region. The proposal "Institutional Strengthening for the delivery of Middle-level Training for the RTTCP" was approved by the RSC in 1997, provided sufficient funds could be made available. By the time funds had been made available (May 1998) there was not sufficient time left under the Training Co-ordinator's contract to start the administrative procedure for the consultancy and to supervise its implementation. It had therefore to be cancelled. This leaves the Region in the same undesirable situation as after the closure of the FAO/SADC School.

6.3 Liaison with Universities in the Region (Proposed Regional MSc in Tropical Animal Health)

Numerous inter-University co-operation agreements, funded by different donor agencies, inter-link the Veterinary Faculties in the Region for the purpose of student and lecturer exchange and research collaboration. This existing network was tapped when considering the future of the MSc in "Tsetse and Trypanosomosis Control". The continuation of this programme has been insecure right from the beginning mainly due to three factors:

- its late start in 1997
- the closure of RTTCP in 1998
- no further funding commitments for a second intake by either the University of Zimbabwe or the EU by the time of this report

Against this background thought was given as early as the start of the planning for the ongoing MSc "Tsetse and Trypanosomosis Control" to alternative arrangements which could absorb this course and at the same time offer a broader spectrum of subjects. These subjects would focus on *Disease surveillance, diagnosis and control*, areas which have been postulated by the OIE to be of priority for training in Africa.

Six Veterinary Faculties existed in the SADC Region (1997) and their resources are limited. A postgraduate training programme offered jointly by these Faculties would not only optimally use scarce funds and limited skilled personnel, but is also in line with the objectives of the proposed "Intra-skills Development Programme" in support of Human Resources Development in the Region. This EU funded programme should be launched in the near future.

The regional approach to tertiary education as well as further specialisation is also in line with the SADC's HRD Sector's protocol which was signed in September 1997.

The objective of this proposal is: *pooling of monetary and human resources by Faculties of Veterinary Science in the SADC Region to offer high quality postgraduate training in Africa rather than abroad.* This will increase the urgently needed manpower to deal appropriately with the diseases in the Region. Networking has proved to be an ideal tool for the achievement of these goals.

The proposed programme focuses on professionals engaged in disease control services in government and in the private sector. The structure of the proposed course is a part-time study: it is composed of 3 – 4 modules of approximately 4 – 6 weeks duration per year. A series of *Core Modules* form the first year, followed by a number of *Specialisation Units*. Participants are allowed utmost flexibility to select modules during the second year to design their own "Specialisation". Thereafter participants can proceed to a third year of research. After successful completion they will be awarded a Master of Science Degree. The Course model is shown in Annex 12. It is thought that all Faculties would participate according to their capability and capacity in the delivery of the modules. Through exchange of lecturers and scientists under this programme, collaboration in teaching and research will also be enhanced.

The RTTCP supported five preparatory meetings between the Deans and/or the Delegates of all the Faculties and a representative of the HRD SADC Sector Swaziland in 1997/98. The Training Co-ordinator and Professor J Coetzer, University of Pretoria, were appointed Co-ordinators for this programme. During these meetings the model was developed further and by March 1998 a comprehensive proposal describing aims and objectives, target group, curriculum for all courses, input from all Faculties and administration had been written. In April 1998 the proposal was presented to the Head of the Consultancy Team for the "Intra-skills Development Programme". After its tour of the region the team will compile a list of 60 proposed projects and it is expected that about 10 will be proposed for funding. Feedback on the Regional MSc proposal should be expected in October 1998.

6.4 Support to RTTCP Regional Office and National RTTCP training activities

As recommended by the HRD Sub-committee, middle-level training courses directly organised and funded by the RTTCP training component focused on *Regional Training Needs*. Besides these middle-level training courses which took place in all four RTTCP countries and which were attended by participants from Zimbabwe, Zambia, Mozambique, Malawi, Namibia and Botswana, the regional training component also supported the following other activities:

- Middle-level training courses organised by RTTCP Zambia with support from IPMI: participation of people from the Region to attend the courses in Zambia was facilitated
- Two Malawian project personnel were sent to Zambia for a 4-week individual training on trypanosomosis survey in August 1996

- The land-use expert RTTCP Zambia trained four government personnel from May to September 1996 in Geographical Information Systems (GIS) and after discussions and approval of the curricula, participants were awarded a RTTCP Certificate
- The Computer pool installed at the University was equipped and made available for computer training courses under the Work Programme of the Strategy Advisor

7. RESULTS AND ANALYSIS

The results of the RTTCP's training programme are given in this chapter as summary statistics of participation in training activities. This is followed by an analysis.

Participation in *middle-level training courses* and the *postgraduate training programme* is reflected in tables 4 – 9. In the first column of these tables the job categories in the Tsetse Control Departments of Zambia, Zimbabwe, Mozambique, Malawi, Botswana and Namibia are listed. In Zambia re-organisation of Government Departments had started in late 1996 and is still ongoing. Personnel for the vacant posts in each job category is still being appointed, hence all established posts are not yet occupied. In the second column, the total number of trained people is listed against the number of posts in the various job categories. Out of these, the number of people who attended several courses and the MSc Course either as full-time or Occasional Students is given also. A list of courses attended by staff from the respective country completes the table.

Some courses were also attended by staff from Veterinary Departments. Their involvement is described in the column "comments". It is only in Zimbabwe that one middle-level training course was held for Veterinary personnel only and their job category numbers have been included into the first column.

Graph 1 and 2 summarise the overall participation in any event organised by the RTTCP's training component including that of *management training* workshops and seminars, which were also attended by professionals from Government Departments other than Veterinary/Tsetse Control. Graph 3 expresses proportions of people trained in relation to size of Tsetse Departments alone. Graph 4 gives the total number of professional and technical people who participated in any activity.

Table 4:

Personnel trained – ZAMBIA (1996 – 1998)
(Dept of Research and Specialist Services; Tsetse Control Dept)

				Number attending				
Job category	Posts occupied/ Posts established	Trained No	Trained %	2 courses	3 or more courses	MSc Full time	MSc Occasional	Comments
CTCB	1/1	1	100					
PTCB	3/3	3	100	2		1		
STCB	4/5	2	50	2		1		
TCB	0/10							
CTCO	1/1	1	100					
PTCO	1/3	1	100	1				In addition 9 Veterinary staff
STCO	7/8	3	43	1				(VO) attended the TNA
TCO	4/25	1	25					(management), Lusaka, 5/97
TCA - total	86/160	25	29	5	5		6	And
Total	**107/216**	**37**	**35**	**11**	**5**	**2**	**6**	
								2 VO's attend the MSc
- Lusaka	10	4	40		2		2	Course fulltime
- Eastern	22	11	50	2	1		1	And
- Northern	8	1	13					3 Vet. Assistants attended
- Luapula	6	1	13					Middle-level training courses
- C/Belt	5							
- Western	6	1	17	1			1	2 Technicians from private
- N/Western	4							companies were also trained
- Central	11	4	36	1	2		2	
- Southern	15	3	20	1				

CTCB = Chief Tsetse Control Biologist
PTCB = Principal Tsetse Control Biologist
STCB = Senior Tsetse Control Biologist

TCB = Tsetse Control Biologist
CTCO = Chief Tsetse Control Biologist
PTCO = Principal Tsetse Control Officer

STCO = Senior Tsetse Control Officer
TCO = Tsetse Control Officer
TCA = Tsetse Control Assistant

Courses attended by Zambians:

Training Needs Assessment (technical), Lusaka, 2/96
Training Needs Assessment (management), Lusaka, 5/97
Tsetse Survey Techniques, Cochemane, Mozambique, 5/96
GIS training, various locations, Zambia 5-9/96

ITTD course, Lusaka, Zambia, 7/96; 10/96
Tryps survey & cartography, Chiawa, Zambia, 6/96
Tsetse survey & cartography, Chiawa, Zambia, 6/96
Tryps survey, Kasungu, Malawi, 4/97

Traps, Targets,Odour, Rekomitje, Z'we, 6/97
Tsetse identification, Kakumbi, Zambia, 12/97

Table 5: **Personnel trained – ZIMBABWE (1996 – 1998)**
(Dept of Veterinary Services, Tsetse and Trypanosomosis Control Branch)

				Number attending				
Job category	Posts occupied	Trained No	Trained %	2 courses	3 or more courses	MSc Full time	MSc Occasional	Comments
Research Biologist	5	5	100	3		1		
CTFO	3	3	100					
STFO	12	7	58	3				
TFO	25	15	60	1				
STFA	13	0						
TFA	202	0						
Total (tsetse)	**260**	**30**	**12**	**7**				
VEA		16					2	In addition 15 Veterinary staff (PVO, VO, VEA) attended the TNA (management) Harare, 5/97
AHI		14						
LI		1						
PVO		3						
VO		5				4		
Total		**70**						

CTFO = Chief Tsetse Field Officer
STFO = Senior Tsetse Field Officer
TFO = Tsetse Field Officer

STFA = Senior Tsetse Field Assistant
TFA = Tsetse Field Assistant

VEA = Veterinary Extension Assistant
AHI = Animal Health Inspector
LI – Livestock Inspector
PVO = Provincial Veterinary Officer
VO = Veterinary Officer

Courses attended by Zimbabweans:

Training Needs Assessment (technical), Harare, 1/96
Training Needs Assessment (management), Harare, 5/97
Tsetse Survey Techniques, Cochemane, Mozambique, 5/96
Tryps survey, Makuti, Zimbabwe, 4/96

ITTD course, Lusaka, Zambia, 7/96; 10/96
Tryps survey & cartography, Chiawa, Zambia, 6/96
Tryps survey, Kasungu, Malawi, 4/97

Traps, Targets,Odour, Rekomitje, Z'we, 6/97
Tsetse identification, Kakumbi, Zambia, 12/97

Table 6: **Personnel trained – MOZAMBIQUE (1996 – 1998)**
(National Directorate of Livestock; Tsetse and Trypanosomosis Division)

				Number attending				
Job category	**Posts occupied**	**Trained No**	**%**	**2 courses**	**3 or more courses**	**MSc Full time**	**Occasional**	**Comments**
Veterinarian	3	2	67	1	1	1		
Biologist	2	2	100	1			1	These 16 people are full-time involved in T&TC
Middle level technicians	2	2	100		2		1	
Basic level technicians	2	1	50		1			There is other personnel which is part-time involved in T&TC, none of whom was trained (5 Veterinarians; 10 Middle-level technicians; 3 basic level technicians)
Elementary level Technicians [1]	7							
Total	**16**	**7**	**44**	**2**	**4**	**1**	**2**	

[1] Labourer

Courses attended by Mozambicans:

Training Needs Assessment (technical), Lusaka, 2/96
Training Needs Assessment (management), Chimoio, 5/97
Tsetse Survey Techniques, Cochemane, Mozambique, 5/96
ITTD course, Lusaka, Zambia, 7/96; 10/96
Tryps survey & cartography, Chiawa, Zambia, 6/96
Tryps survey, Kasungu, Malawi, 4/97
Traps, Targets,Odour, Rekomitje, Z'we, 6/97

Table 7: **Personnel trained – MALAWI (1996 – 1998)**
(Dept of Animal Health and Industry; Field Services; Tsetse and Trypanosomosis Control)

				Number attending				
Job category	Posts occupied	Trained No	Trained %	2 courses	3 or more courses	MSc Full time	MSc Occasional	Comments
Biologist	1	1	100	1				
Technical Officer	2	2	100	2				
Senior Technical Assistant	3	2	67	1				
Technical Assistant	9	9	100	3				2 TA were send for individual 4-week training to Zambia
Total (tsetse)	**15**	**14**	**93**	**7**				
Veterinary Officer		1						In addition 6 Veterinary staff (VO, Animal Husbandry Officer) attended the TNA (management) Lilongwe, 5/97
Veterinary Assistant		4						
Total		**19**						**And** 5 Vet. Assistants attended
								Middle-level training courses

Courses attended by Malawians:

Training Needs Assessment (technical), Lusaka, 2/96
Training Needs Assessment (management), Lilongwe, 5/97
Tsetse Survey Techniques, Cochemane, Mozambique, 5/96
ITTD course, Lusaka, Zambia, 7/96; 10/96
Tryps survey & cartography, Chiawa, Zambia, 6/96
Tryps survey, Kasungu, Malawi, 4/97
Traps, Targets,Odour, Rekomitje, Z'we, 6/97
Tsetse identification, Kakumbi, Zambia, 12/97

Table 8: **Personnel trained – BOTSWANA (1996 – 1998)**
(Dept of Animal Health and Production, Tsetse Control Division)

				Number attending				
	Posts	Trained			3 or more	MSc		Comments
Job category	occupied	No	%	2 courses	courses	Full time	Occasional	
Chief Tsetse Officer	1	1	100					
Entomologist	2	1	50			1		
Chief Technical Officer	1	1	100					
Senior Field Officer	1	0						
Field Officer	2	0						
Senior Technical Assistant (Assistant Field Officer)	10	7	70	1			1	
Total	**17**	**10**	**59**	**1**		**1**	**1**	

Courses attended by Botswana:

Training Needs Assessment (technical), Lusaka, 2/96
Tsetse survey & cartography, Chiawa, Zambia, 6/96
Tryps survey, Kasungu, Malawi, 4/97
Traps, Targets,Odour, Rekomitje, Z'we, 6/97
Tsetse identification, Kakumbi, Zambia, 12/97

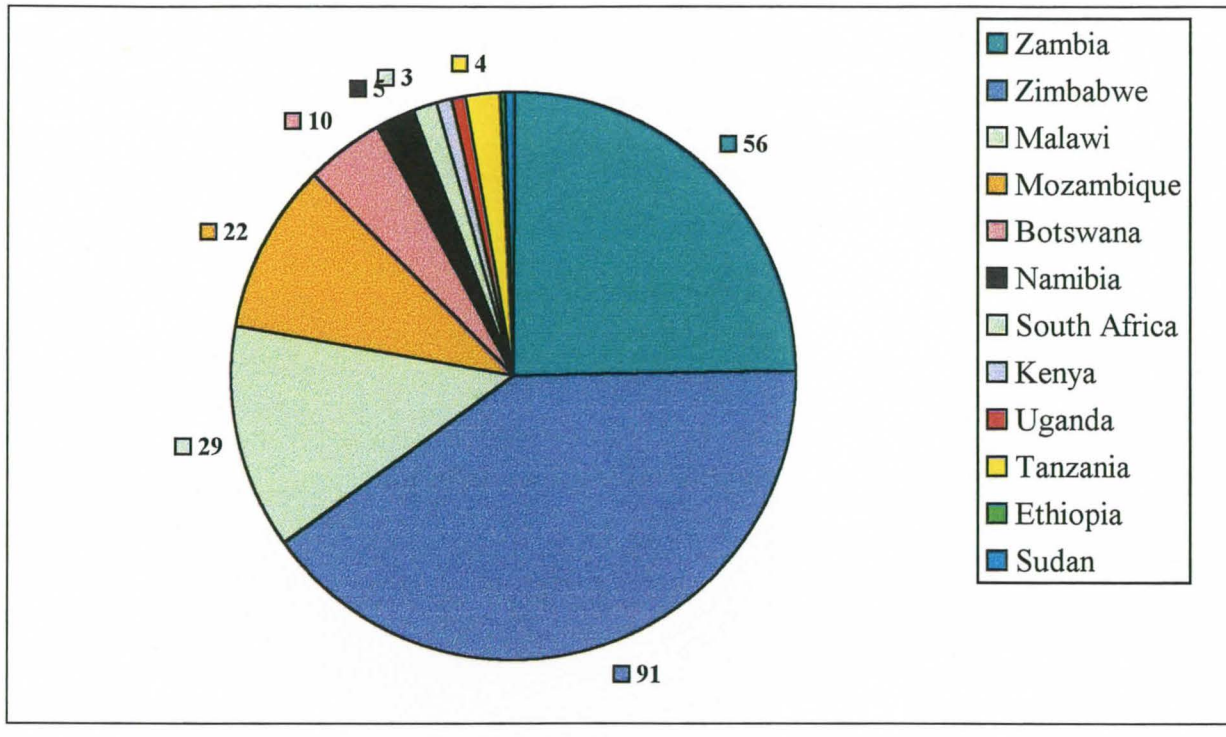
Table 9: Personnel trained – NAMIBIA (1996 – 1998)
(Directorate of Veterinary Services, Disease Control North East, Sub-Division Katima Mulilo, Tsetse Control)

				Number attending				
	Posts	Trained			3 or more	MSc		Comments
Job category	occupied	No	%	2 courses	courses	Full time	Occasional	
State Veterinarian	1	1	100					
Animal Health Inspector	1	1	100		1			
Labourers	9	2	22					
Total	**11**	**4**	**36**		**1**			

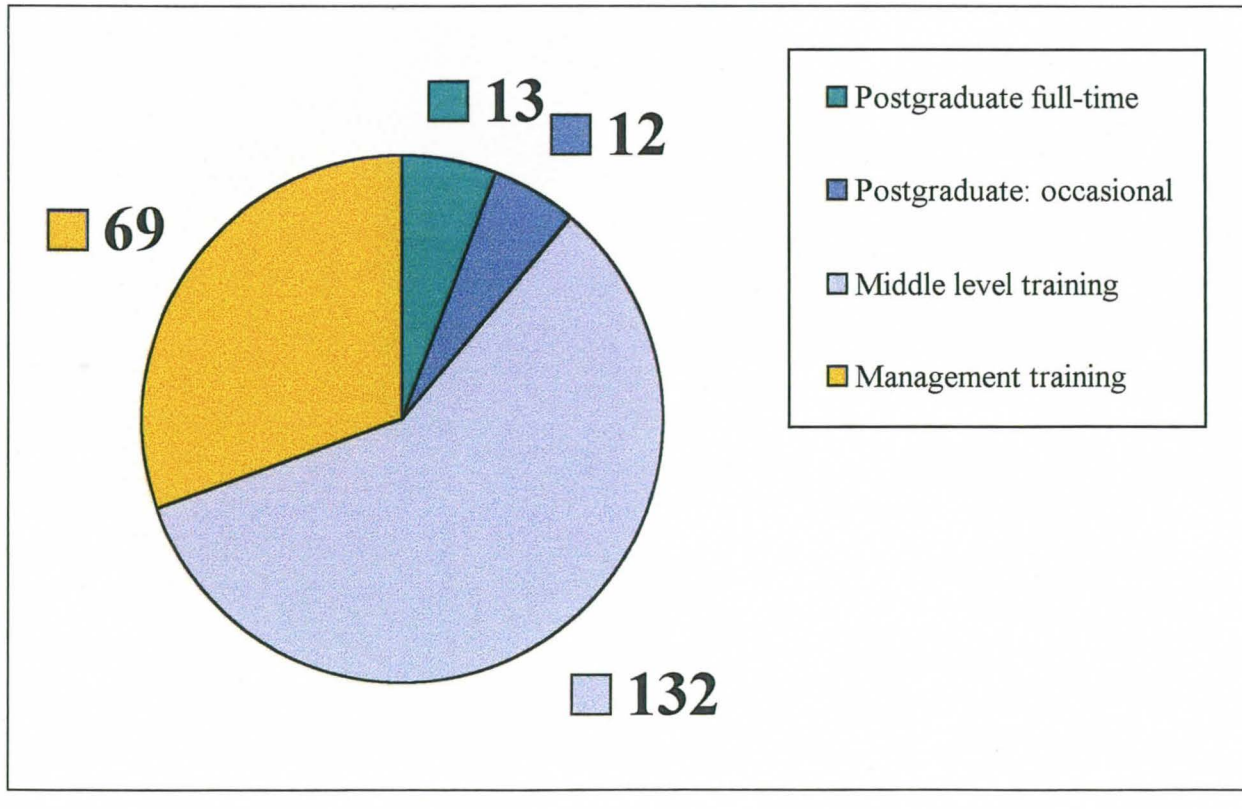
Courses attended by Namibia:

Training Needs Assessment (technical), Lusaka, 2/96
Tryps survey & cartography, Chiawa, Zambia, 6/96
Tsetse survey & cartography, Chiawa, Zambia, 6/96
Tryps survey, Kasungu, Malawi, 4/97
Tsetse identification, Kakumbi, Zambia, 12/97

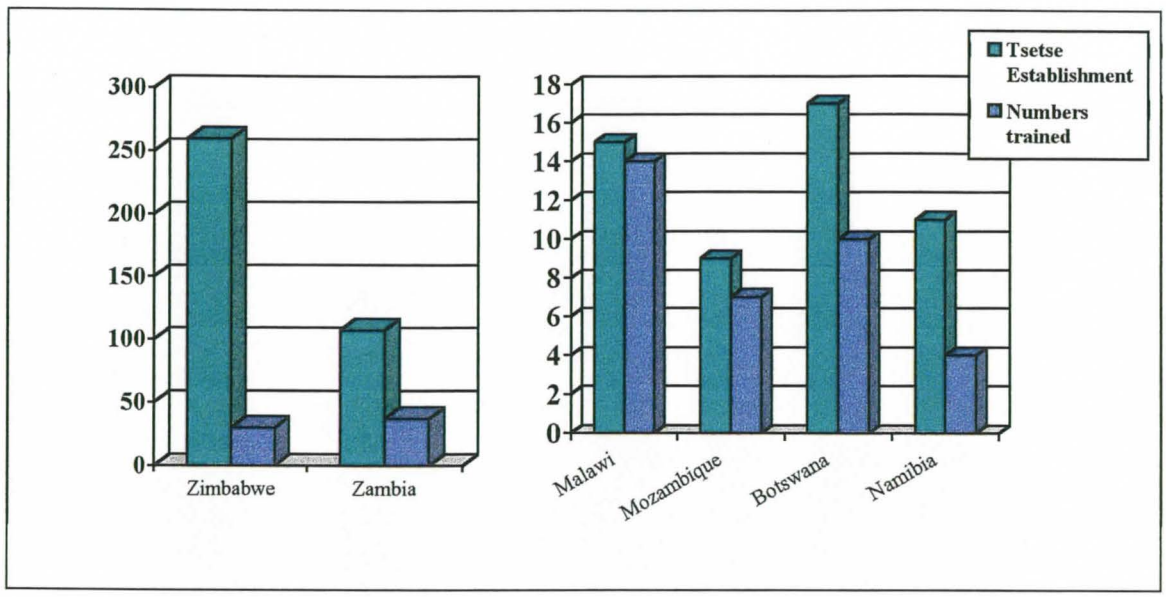
Graph 1: Number of participants in training programme by country



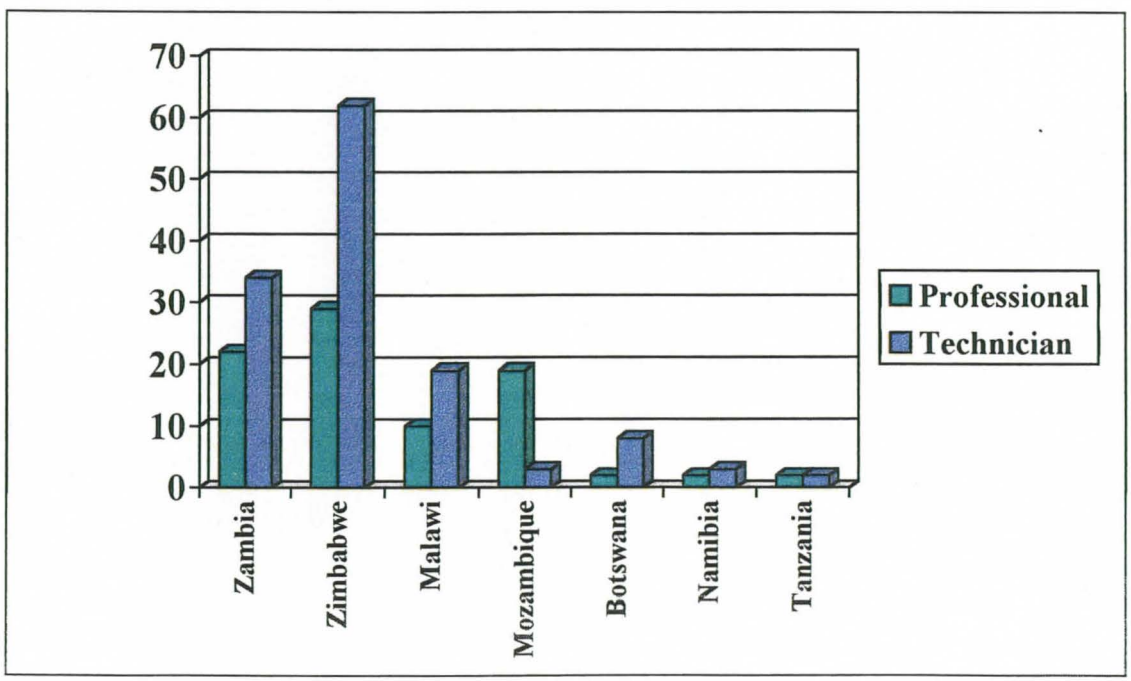
Graph 2: Number of people participating in the three components of the training programm



Graph 3: Tsetse establishments and proportional participation in training programme



Graph 4: Professional and technical staff participating in all events of the training programme



A total of 226 people participated in either training courses, workshops or seminars during the period under review. Participants originated from 12 countries. Some 60 resource persons contributed to the delivery of middle-level and postgraduate training. This was a unique and unprecedented opportunity for people from the Region to interact and obtain a better knowledge and understanding of the dimension of trypanosomosis as a problem in the other countries.

The availability of skilled personnel is a major consideration in formulating strategies for tsetse control. Sizes of departments are an important consideration. There is an obvious gradient in the staff establishments when comparing the six countries. 260 employees in Zimbabwe, the one country in the Region with a contained disease situation, maintain the operational areas along the borders with Zambia and Mozambique. In Zambia, where 5/8 of the country are under tsetse infestation, only 107 employees are engaged full time in the ongoing operations, this being only half of the established posts occupied. 75% of Mozambique are considered to be tsetse infested and a total of 16 full-time tsetse personnel, of whom 7 are casual workers, are to take control of the problem. In Malawi, Namibia and Botswana the numbers are small but are apparently sufficient to deal with the restricted distribution of flies in these countries.

As the tables show, different job categories were covered e.g. in Zambia and Zimbabwe particularly for middle-level training. The decision on selection and nomination of participants was left mainly to the Heads of Department and RTTCP managers as part of participatory management of the training programme. The aim of the programme, however, was to achieve a greater coverage of job categories and number of people, but this was not possible in the limited time available. In Mozambique an extended coverage was limited by the language problem, therefore courses in Portuguese had been planned for the lower technical ranks. A request for training of technical personnel (10 technicians and 1 Veterinarian) had also come from Angola for this course in Portuguese. The planned joint Mozambique – Angola technical training course held in Portuguese had to be cancelled.

The possibility to apply the skills that were imparted on participants is yet another aspect of the consideration regarding planning for sustainable tsetse control. This depends largely on the institutions that employ technical and profession personnel. Operational budgets (in real terms) of Tsetse Control Departments have progressively dwindled over the past years, with a relative rise in the proportion of budgets to meet personnel costs. Concurrently, ambitions of trained personnel to apply knowledge and new techniques has risen due to continuous training input. Another gradient becomes obvious: personnel attached to or working directly with the national RTTCP units generally had a better chance to apply in the field what they had learnt during courses, than their government colleagues. Although generally enthusiastically accepted, the field application of RTTCP promoted standardised methods, was severely limited by the non-availability of basic equipment such as microscopes and centrifuges to most government employee participants. RTTCP-attached personnel apparently had also easier access to information on training opportunities and hence a better chance for personnel career development. As RTTCP supports almost the entire department in Mozambique and Malawi, whereas only

a small proportion of staff in Zambia and no field workers in Zimbabwe, a gradient of "frustration" over the lack of opportunities became obvious when assessing participants "end of course" evaluation forms. This notwithstanding, training courses constitute an incentive on their own and very sought after. Back at work situation, however, incentives are rare and through the prevailing top-down management in Government structures, opportunities for positive recognition of skills improvement are scarce. To counter this experience, most middle-level training courses had a "train the trainer" component, encouraging participants to involve their colleagues and team mates in discussions and share newly acquired knowledge.

Besides the statistical and observational analysis (see Tables), a qualitative assessment of the impact of middle-level and postgraduate training on capacity building for sustainable tsetse control is yet to be accomplished. Several criteria have to be considered in such an assessment:

- The retention and promotion of trained personnel
- The impact of AIDS on depletion of trained staff
- The impact of privatisation on depletion of skilled Government staff
- "brain drain" of professional staff to other institutions
- The actual improvement of tsetse control techniques in the field due to improved knowledge

It was within the mandate of the TC to address these issues, to launch studies and co-ordinate appropriate evaluation activities. At the technical middle-level 12 training courses were held from January 1996 to December 1997, with the programme and its recognition building up momentum progressively. More activities and the start of the qualitative evaluation were planned for 1998. These had to be abandoned after the re-planning necessitated by the decision in March 98 not to extend middle-level and the Training Co-ordinator's contract.

The Technical Subcommittee in its annual tour of the Region in 1998 addressed the improvement of tsetse control techniques in the field. Part of their "checklist" was the assessment of technicians' performance. A report of their findings will only be available after the departure of the Training Co-ordinator.

An assessment of *postgraduate training* was done in part through evaluation of assignments in between modules in 1997. Informal discussions with the respective Heads of Departments gave the Training Co-ordinator the opportunity to get a personal impression of participants' performance changes at the work place. However, this type of assessment is not objective. It was anticipated to link MSc students' performance assessment to routine government staff appraisal at the end of the year.

An assessment of the perception attached to services rendered by the Regional Office by national governments was carried out in October 1997 through an anonymous questionnaire which was send to all countries and handed to the RSC members. The

analysis revealed the highest average score and highest range of scores for the training service.

8. CONCLUSION

The Regional Tsetse and Trypanosomosis Control Programme is a large international programme which over its 12 years project period has achieved a lot and has attracted much attention. Its role is mainly that of co-ordination and facilitation of implementation, of promoting strategic planning and the "management of change". Despite great achievements in the research sector, the actual implementation of tsetse control has remained a national duty into which regional RTTCP staff were only partially involved.

Hand-in-hand with a long list of achievements, the project has also experienced a history of delays. Phase I was critically understaffed. In Phase II, which started in 1992, the post of a Professional Assistant was only filled in June 1994. The Training Co-ordinator arived only in October 1995. Another reason for delays were the programme's institutional relationships to the SADC, unclear terms of reference for the various committees and the chain of commands between them. Delayed progress was also brought about by the fact that initial planning was not based on the PCM and logical framework method. Such an approach could have avoided the problem of inadequate terms of reference and would have allowed objective monitoring of the programme and its progress. This method however, was only adopted in 1995.

It is only when looking back at this history of delays and constraints experienced when implementing the programme, can it be explained why a training component was only added to the project as late as 1995/96. By the nature of its ambitions, Human Resources Development should have been an integral part and important building block right at the start of the RTTCP.

Shortage of well trained manpower at all skills levels has been identified as crucial in almost all development programmes, so also in the field of tsetse control. *Human Resources Development* in this context is defined as "*Strengthening capability of people to manage the detailed practical aspect of planning, implementation and evaluation of Tsetse Control*". The mere training of personnel, however, is not enough to build capacity to sustain effective tsetse and trypanosomosis control services. The building of capacity is a central element of the development process and has to entail the people as well as the institutions, i.e. Training Institutions and Government Departments concerned with tsetse control. Capacity building is a continuous, long-term process which must be given enough time for implementation. Its planning must be based on a wider vision for social development and not be one amongst other components in a project. Only then is there a chance to focus capacity building on each country's development agenda, institutionalise activities initiated by a project and to gain government commitment. Examples for failure to link project initiated activities to government development agendas are manifold. In the context of tsetse control, the FAO-managed SADC Middle-Level Training centre in Lusaka is one example. There were no mechanism in place to

institutionalise its activities and to guarantee funding by the countries in the Region after almost 15 years of donor funding. This led to the discontinuation of training for middle-level personnel.

Recognition of the importance of capacity building was certainly given throughout the RTTCP programme period and has been mentioned by all evaluation reports. However, the various factors mentioned earlier led to the training component only being one amongst other components in the project, which started at a time when only short-term planning was possible.

At the same time, the beginning of the training programme coincided with the implementation of Structural Adjustment Programmes (SAP) in all RTTCP countries. Meant to create macro-economic conditions and an environment conducive to growth in response to changing domestic and international circumstances, SAPs in themselves alone did not generate accelerated growth. SAP's short-term effects frequently increase unemployment and exacerbate poverty. In the context of tsetse control, staff was made redundant or suspended and line managers were pre-occupied with other problems than to develop long-term capacity building strategies for their personnel. Government budgets for tsetse and trypanosomosis control were reduced wherever tsetse control was not given priority anymore in national planning. This in turn, created lack of commitment of institutions and key individuals towards the implementation of the components of RTTCP. A further aspect of the great changes embroiling the target group for capacity building in tsetse control is privatisation. Although possibly a way towards sustainable tsetse control, it requires knowledgeable people to carry out and supervise operations. Presently these are mainly recruited from government, leading to a depletion of skilled staff.

AIDS also takes its toll. Statistics officially published for the countries under RTTCP are very high, yet the losses amongst the target group are difficult to verify. It can, however, be expected, as shown in a study in Tanzania, that the size of the labour force will shrink because of AIDS and the mean age of workers will fall, resulting in a shift to younger and less experienced workers [15]. In another study it is pointed out that the impact of HIV on Human Resource planning nationally and within sectors by governments and the private sector in Southern Africa does not appear to have been considered. This seems bizarre and needs urgent attention by the Manpower Planning Units of the respective governments. The increasing impact of death and illness will need to be monitored and strategies will need to be found to maintain productivity and to provide for ill employees [16].

All these factors contribute to high turnover of staff whether in the public or private sector.

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[15] ILO EAMAT, 1995: The impact of HIV/AIDS on the productive Labour Force in Africa, EAMAT Working paper no 1, Addis Ababa.

[16] Social and Economic Issues of HIV/AIDS in Southern Africa: A review of current research. By Rene Loewenson, OATUU Health, Safety and Environment Programme and Alan Whiteside, Economic and Research Unit, University of Natal, SAFAIDS, Harare 1997.

Against this background the most obvious conclusion is that a 3-year period to establish a training programme in support of capacity building in tsetse control to counteract the situation as described above in a pro-active manner is by far too short. It is too short to:

- **Plan** in such a way that activities do not remain project supported only
- **Implement** with the view to integrate into existing institutions
- **Evaluate** appropriately to allow for re-planning and improvement

Given the short time period for implementing training and recognising the impossibility to institutionalise all initiatives, it can be concluded that the chosen regional approach had the greatest short-term benefits. Having identified training needs and having defined needs common to all countries as *Regional Needs,* addressing of the remaining needs was left to the countries themselves. Having created common ground through these common needs, communication with the target group became easy. It was particularly interesting to observe how little is known amongst field staff about the situation regarding the fly, the disease and their colleagues in the other countries. An exchange of informal knowledge beyond the mere technical subjects created a conducive environment for inter-cultural understanding. The regional approach also facilitated transfer of the RTTCP promoted standardised techniques regarding trypanosomosis diagnosis, appropriate target technology and data recording and reporting. Regional collaboration was also supported by the RTTCP when experienced and well trained technical tsetse control personnel from Zambia assisted in tsetse surveys in several districts in Mozambique in 1996 and 1997. Two veterinarians from Zambia and Zimbabwe carried out a parasitological and serological trypanosomosis survey in the Eastern Caprivi District of Namibia in 1997.

Given the situation that a lot had to be achieved in a very short time, networking was of utmost importance. The existing networks particularly between tertiary training institutions were extensively exploited and other institutional links were tapped here and there. It can therefore be concluded that the already existing network has greatly facilitated the implementation of the RTTCP training component. However, the optimal utilisation of all sources for co-operation in training at regional level is impeded often by the sheer logistics of distance: considerable time is consumed in travel, telecommunications particularly to remote areas are generally inefficient and airlines in the region are not consistently reliable. Therefore, throughout, *time* was at a premium and was a limiting factor to implementation.

Evaluation reports and training needs assessments have pointed out that leadership and management skills are of particular importance and may in fact determine the limits of the capacity available even when all other prerequisites are in abundance. This key issue again could not be addressed appropriately due to lack of time. Particularly the planning for management training needed to be in line with the country's development agendas, presently strongly influenced by the on-going SAPs. One "off the shelf" management training module was offered to staff of the Regional Office. It was however, concluded that such courses would fail their purpose on the government target group.

Achievements of the training programme are quite considerable despite the constraints mentioned above:

- A MSc degree programme in "Tsetse and Trypanosomosis Control", the only one of its kind, was attended by 12 students from 6 countries. It should produce 6 Veterinarians and 6 Biologists as experts in this field by December 1999. A proposal for integration of postgraduate training in this highly specialised field into a broader based topic such as Tropical Animal Health has been made.
- Twelve middle-level training courses were offered and attended by 132 people, of whom 39 came repeatedly.
  A concept for institutionalisation of middle-level training is readily available to be implemented by any RTTCP successor programme.
- Five Management training workshops and seminars where held and attended by 69 people from 12 countries. Training needs for government personnel were identified and outlines for training courses are available.

A large number of resource people for training activities were recruited locally from the RTTCP countries and from beyond, giving opportunities for individuals as well as institutions for interaction and co-operation in the tsetse and trypanosomosis subject matter and exposure to the situations in different countries.

8. RECOMMENDATIONS

Human Resources Development is a means to an end rather than an end in itself. It is on this understanding that recommendations are formulated hereafter as guidelines for training programmes to be again considered under a regional programme that may follow the RTTCP. They are first given in relation to the three distinct result areas of the RTTCP training programme and followed by some general recommendations.

- **Middle-Level Training**

The regional approach was found to be most beneficial. Its implementation should be closely linked and eventually handed over to a centre or institution in the Region with the capacity to continue the activities and accommodate people from the Region. Such a programme should be open to personnel from the private sector (contractors) to cater for the on-going changes in government policies. Training at all levels of skills should be given efficient public relation and should eventually be charged for. Participation and achievements (Certificates) should be acknowledged by the employer in terms of promotion.

- **Postgraduate training**

University based training is very costly and must be based on the principle of economising resources. A regional approach particularly in highly specialised subjects such as tsetse control is beneficial. A frequent re-assessment of staff numbers to be

trained is required to avoid a higher output than there is demand. An integration of postgraduate training in "Tsetse and Trypanosomosis Control" into a broader concept is recommended.

- **Management training**

All training needs assessments carried out during the reporting period prove what is found in abundance in literature: Leadership and management skills are most important and may determine to an extent the limit of capacity available. This type of training in particular has to be aligned with the development paradigm of a given country and it is recommended that planning be done very thoroughly in close collaboration with the respective Government institutions.

- **General**

❖ A training programme should be an integral part of a project right from its inception to allow for it to grow into the country's development agenda and to gain government commitment to capacity building.

❖ If a job description for technical assistance is changed and the change entails a three-fold increase in work volume, the time frame for implementation should be increased accordingly.

❖ Institutional linkages, chain of command and responsibilities between the partners in a regional programme should be clearly defined, as this is the basis for good management, clear communication and transparent decision making.

❖ The gender issue was highlighted in the mid-term evaluation report: "*RTTCP has not addressed strategic gender needs and it has not improved women's access to resources and benefits. The programme has not markedly improved women's positions*". This statement reflects the view onto women as the beneficiaries of tsetse control. Results from recent socio-economic studies particularly in Mozambique and Zambia will shed more light on the appropriateness of this statement.

There is however, another aspect of the gender issue. Planning, management and implementation of tsetse control is a predominantly male domain. A total of 11 women compared to 215 men participated in any of the activities organised by the training department of RTTCP. The situation is equally unbalanced on the side of the many advisors who were engaged over the years with RTTCP: the Training Co-ordinator was the only woman ever employed as a technical assistant with the programme. The present management of the RTTCP, i.e. the RSC, both on the donor side as well as on the countries' side is entirely male, so was the attendance of the majority of meetings attended by the Training Co-ordinator. It is recommended that a programme which is supposed to contribute towards "*improvement of women's situation*" should recruit more women into leading and responsible positions within the project itself.

- It is recommended that a successor regional programme makes use of the experiences gained during the 3-year period of the training programme. It is further recommended that the proposals for

  - A communication network
  - Institutionalisation of middle-level training
  - A Regional MSc programme in Tropical Animal Health

  be given priority consideration. It should be avoided that the time gap between RTTCP and the new programme be used as a reason to discard these proposals as "aged" and to start from the beginning again.

9. ACKNOWLEDGEMENT

It is not possible to acknowledge all those throughout the Region who have helped and advised the Training Co-ordinator in the fulfilment of her task over the past three years, neither is it possible to thank all those who have contributed actively to the implementation of the training programme. However, particular thanks are due to Dr S Hargreaves, Dr F Songane, Dr D Chinombo, Dr P Sinyangwe, Dr A Norval and Dr Raborokgwe, who head the Veterinary and Tsetse Control Services in Zimbabwe, Mozambique, Malawi, Zambia, Namibia and Botswana respectively. The support given by Dr Fanikiso, SADC Livestock Desk Officer, is gratefully acknowledged.
The implementation of the postgraduate training course could not have been accomplished without the keen support and assistance of the Dean of the Faculty of Veterinary Science, Prof M Obwolo and the Head of the Paraclinical Department of Veterinary Studies, Dr P Muvavarirwa and later Dr T Hove.

I benefited greatly from discussions with Dr Chizyuka and Dr Pollock, who worked with the FAO SADC 'School for middle-level training before its closure.

The main support, however, was received from my colleagues in the Regional Office. Discussions with the team were always challenging, at times frustrating but in the end always helpful. I wish to thank Dr R J Connor, Dr P Van den Bossche, Dr G A Vale, Dr P Poilecot and Mr M Doran for their professional advice, active support and for their friendship.

The tireless efforts of the administrative team in the Regional Office under the experienced and wise guidance of the Senior Administrator, Mr T E Mandizvidza, are gratefully acknowledged.

Particular thanks go to the team based at the University. My secretary, Mrs F Mafukidze, earns an award for her ever-lasting patience and friendliness during times of stress, conflict and great work pressure. Her warm smile became a "label" for the small team at the University and will be missed. Warm thanks are also due to the Administrative Assistant Training, Mr A Kadete and later Mr D Ngugama.

Three years of life in Zimbabwe and travel in the Region was definitely a challenge, from which I have learnt a lot and which I appreciate. I feel privileged to have worked for the RTTCP.

REVISED TERMS OF REFERENCE FOR THE POST OF COURSE DIRECTOR* OF THE RTTCP-FUNDED TRAINING PROGRAMME

(Refer to Section 5 of Annex A of the contract)

*[* Note that the title of the post has been changed to Training Co-ordinator]*

Training Co-ordinator of the Training Programme
Terms of reference for the Training Co-ordinator

1. To provide his services to the countries of the RTTCP, from offices at the University of Zimbabwe's Faculty of Veterinary Science, Harare.

2. To be based in the Department of Paraclinical Veterinary Studies and to work under the joint authority of the Departmental Board and the Regional Coordinator and, through them, under the authority of the Regional Authorizing Officer of the EDF.

3. To liaise closely with the Directors of the government organizations responsible for veterinary matters in the countries of the RTTCP and with RTTCP staff.

4. To liaise closely with teaching and research staff at universities and training institutions throughout the region particularly in subjects related to tsetse and trypanosomosis control.

5. To liaise closely with the various scientific organizations, agencies and individuals assisting the RTTCP.

6. To implement training programmes in tsetse and trypanosomosis control at middle level and postgraduate level.

7. To prepare annual work plans and cost estimates for the training programme.

8. To prepare contracts to engage module organizers and consultant tutors after agreement with the Regional Co-ordinator and the Department of Paraclinical Veterinary Studies.

9. To advertise the programme and arrange selection of suitable students in consultation with the Department of Paraclinical Veterinary Studies and the Regional Co-ordinator.

10. To be responsible for all logistical arrangements related to travel, accommodation, tuition and welfare of programme participants.

11. To submit regularly audited accounts of all expenditure to the Regional Coordinator.

12. To obtain reports from module organizers and consultant tutors on completion of each module, for submission to the Dean of Faculty of Veterinary Science and the Regional Coordinator.

13. To arrange with Universities and training institutions in the region to provide external examiners for each programme module and for the final examinations.

14. To monitor the performance of students after completion of the programme and, in liaison with their supervisors to evaluate the benefits of the training programme.

15. To arrange, together with the Department of Paraclinical Veterinary Studies, the supervision of students registered for masters degrees, as required.

16. To supervise administrative, secretarial and accounting support staff of the Training Co-ordinator's office.

17. To report on the RTTCP training programme at meetings of the Regional Standing Committee's subcommittee on specialist training, and at other meetings such as SADC's Regional Training Council and OAU/IBAR ISCTRC meetings.

18. In accordance with the Financing Agreement, to provide quarterly reports detailing his activities for submission to the Regional Authorizing Officer, the European Commission and the Regional Standing Committee through the Regional Coordinator. The fourth quarterly report will take the form of a comprehensive annual report of all activities and expenditures during the year. The third annual report will take the form of an "end of contract" Final Report. In addition, to report in detail to the Regional Coordinator and the Dean of the Faculty of Veterinary Science on all missions.

RECOMMENDATIONS OF THE TECHNICAL TRAINING NEEDS ASSESSMENT
January/February 1996

A training needs assessment was carried out in open consultation with representatives from countries of the RTTCP. To guarantee a thorough assessment, one Workshop was convened for 14 members of the Zimbabwean Tsetse and Trypanosomosis Control Branch and the Veterinary Department, and one Workshop for 7 people from Malawi, Mozambique, Zambia, Namibia and Botswana.

Following an approved procedure, training needs were established as specifically as possible for all job categories in each country.

It became obvious that

- There is an enormous difference in knowledge level of middle-level personnel between countries;
- In the higher qualified job categories, the human skills training needs rank prior to the technical needs;
- The basic needs are mainly present in Mozambique (because of little training history due to civil unrest) and Malawi (mainly because of high turn-over of staff composition);
- Cross country common needs **(regional needs)** were identified and 5 distinct training needs categories were established:

    1. Management and planning skills
    2. Orientation skills
    3. Postgraduate training at Master's level
    4. New technologies in T&T control
    5. Computerised and standardised data management

It is recommended that RTTCP's training component should concentrate on the regional needs, national needs should be addressed by the respective Government departments. However, close co-operation with the RTTCP Training Co-ordinator is encouraged.

Further to the RTTCP's training activities, various Institutions in the region were identified which could potentially meet the identified training needs. Strengthening of suitable Institutions to offer specific training within their capability would certainly enhance continuity and sustainability of training required for improved tsetse and trypanosomosis control.

Summary of middle level training activities

Course title	Venue	Date	Short description	Attended by
Training needs assessment: general	VTI, Harare, Zimbabwe	15/16.1.96	Assessment of training needs for all job categories involved in T&TC	17 Zimbabwe officers from a wide range of job categories, both Veterinary Dept & Tsetse Branch
Training needs assessment: general	Lusaka, Zambia	28/29.2.96	Assessment of training needs for all job categories involved in T&TC	Representatives of different job categories from Zambia, Malawi, Botswana and Namibia
Training needs assessment: management	Harare, Lusaka, Chimoio, Lilongwe	Apri/May 97	Assessment of management training needs for selected job categories involved in T&TC	Representatives of different job categories in Vet. and Tsetse Dept of each country visited
Trypanosomosis diagnosis	Makuti, Zimbabwe	22-26.4.96	Trypanosomosis survey/surveillance, diagnostic techniques,trypanosome identification, chemotherapy, -prophylaxis, data recording	VEA's and AHI's from Zimbabwe
Tsetse survey techniques	Cochemane Mozambique	13.-22.5.96	Tsetse surveys, tsetse identification and ecology, tsetse behaviour, field cartography, data management and reporting	Technical people from the Region
ITTD and AED, Part I	Lusaka, Zambia	22-29.7.96	Entering historical and current field data from RTTCP countries in database, use of GIS package IDRISI, production of maps	Personnel involved in data management from all 4 RTTCP countries
ITTD and AED, Part II	Lusaka, Zambia	21-25.10.96	Trouble shooting of problems experienced when applying the programme at the workplace, more advanced map production	Same participants as for Part I

Trypanosomosis survey and carthography	Chiawa, Zambia	3-9.6.96	Refresher course on standardised techniques in survey and diagnosis, GPS reading, Train the Trainer	6 participants from the region joint this course organised by RTTCP Zambia and IPMI
Tsetse survey, control and cartography	Chiawa, Zambia	8-13.6.96	Refresher course on tsete surveys, use of control devices, cartography, GPS reading, introduction to database ITTD, Train the Trainer	5 participants from the region joint this course organised by RTTCP Zambia and IPMI
GIS	various, Zambia	2.5.-16.9.96	Introduction to GIS, basic concepts of mapping, Atlas GIS digitising and analysis procedures, production of maps	2 RTTCP Zambia staff and 2 Animal Husbandry staff, MAFF, Zambia, 14 training sessions
Trypanosomosis survey	Kasungu, Zambia	14-19.4.97	Survey/surveillance, diagnosis of trypanosomes, field practicals, field orientation, participation in Malawi national tryps survey	Technical people from the region
Tsetse Control: Traps, targets & odours	Rekomitje, Zimbabwe	9-14.6.97	Response of tsetse to hosts, odour identification, odour dispensing, traps & targets oriented behaviour, types of traps & targets, siting of traps & targets	Technical people from the region
Sampling & identification of tsetse	Kakumbi, Zambia	8-13.12.97	Bait oriented behaviour of different tsetse species, general bioligy of tsetse, identification of G.m,G.b.,G.p.,G.a., sexing & ageing, tryps infection in flies, movement & distribution of tsetse, community participation in the control of tsetse in Zambia	Technical people from the region

ANNEX 4

Resource persons involved in the delivery of middle-level training

Name	Title	Institute	Country
Asser	Mr	Nutac Training	Zimbabwe
Brinn P	Mr	RTTCP Zambia	Zambia
Chandipwise B	Mr	Veterinary Training Institute	Zimbabwe
Chilongo K	Mr	DVTCS	Zambia
Coetzer J	Prof.	University of Pretoria	RSA
Hopkins Julian	Dr	IPMI	Zambia
Kappmeier K	Dr	OVI	RSA
Lipenga	Mr	RTTCP Malawi	Malawi
Lumamba D	Mr	RTTCP Zambia	Zambia
Lupikisha	Mr	Chipembi Tsetse Station	Zambia
Maganga	Mr	RTTCP Malawi	Malawi
Mangwiro C	Mr	T&TCB	Zimbabwe
Maseko A	Mr	RTTCP Zambia	Zambia
Mubanga	Mr	RTTCP Zambia	Zambia
Mudenge Daniel *	Dr	RTTCP	Zimbabwe
Mukumbwali M	Mr	RTTCP Zambia	Zambia
Munstermann S	Dr	RTTCP	Zimbabwe
Mutika G	Mr	T&TCB	Zimbabwe
Muzari O	Mr	T&TCB	Zimbabwe
Mweempwa C	Mr	RTTCP Zambia	Zambia
Ngalande H	Mr	RTTCP Zambia	Zambia
Nyamurera	Mr	T&TCB	Zimbabwe
Silutongwe J	Mr	RTTCP Zambia	Zambia
Vale G	Dr	RTTCP	Zimbabwe

* Passed away April 98

RECOMMENDATIONS OF THE MANAGEMENT TRAINING NEEDS ASSESSMENT
April/May 1997.

During April and May 1997, seven Workshops were conducted by Nutac Training to identify training needs in management skills in job groups located in the Tsetse and Trypanosomosis Control Branch, Zimbabwe and the Veterinary Departments in Malawi, Mozambique, Zambia and Zimbabwe.

The method adopted to identify the training needs was to ask individual Workshop participants to fill out a questionnaire, which listed 20 separate management skills. The meaning of these skills was fully explained during the Workshops. Individual participants were then divided into groups for group decisions on defined perceived training needs in specific job categories.

From the results of the Workshops, recommendations were formulated. These recommendations can be summarised as follows:

1. That training should take place in the following management skills:
    - Influence positively
    - Train and develop others
    - Manage time and stress
    - Plan/allocate work
    - Lead and build a team

2. That in view of the time and expenditure involved in training, great care should be taken in selecting the right employee for the correct type of training, this selection process should be conducted by line management. Consultants may be asked to assist in this task to ensure an objective approach and a thorough understanding of the management skills in which training is to take place.

3. That the choice in the method of training lies essentially between using public courses or programmes tailor-made by consultants. Financial considerations will play an appropriate role, but training ultimately must address shortcomings that were identified.

Admission Requirements and Procedures

The Course is open to Veterinarians and Biologists not older than 40 years, with:

- a recognised degree equivalent to a BVSc or BSc in an appropriate field.
- a minimum of **two** years relevant professional experience.
- proficiency in English.
- Director's / employer's letter confirming that the candidate will be released from work for all study periods.

Application forms must be completed in duplicate and all necessary documents enclosed. Forms must be returned to the Training Co-ordinator, RTTCP, by the closing date:

31 January 1997

Costs, Fees, Scholarships

A limited number of scholarships are offered by the RTTCP, covering tuition fees, costs of living, insurance, travel expenses and a research grant.

Candidates are strongly encouraged to apply for sponsorship from their Government, an International Organisation or an NGO. The following costs (excluding travel and research grants) should be considered:

Full Course (in Z $)

	Zimbabweans	Non-Zimbabweans
Year 1	36 400	49 900
Year 2	54 300	70 500
Year 3	37 100	42 500

Single modules (in Z $)

	Zimbabweans	Non-Zimbabweans
Year 1	13 200	17 700
Year 2	19 500	27 900

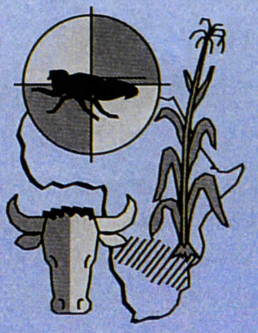
Candidates providing their own funding will be given priority in the allocation of extra study places, provided their qualifications meet admission requirements. These candidates may apply to RTTCP for grants to meet travel and research costs.

For further information and submission of application forms, please write to:

The Training Co-ordinator, RTTCP
P.O. Box A 560
Avondale, Harare
Zimbabwe

Tel.: +263 4 720033 Fax: +263 4 722684

UNIVERSITY OF ZIMBABWE FACULTY OF VETERINARY SCIENCE



Regional Tsetse and Trypanosomosis Control Programme for Southern Africa (RTTCP)

MASTER OF SCIENCE/ POSTGRADUATE DIPLOMA IN TSETSE AND TRYPANOSOMOSIS CONTROL

SECOND ANNOUNCEMENT

Training Course 1997 / 99

The MASTER OF SCIENCE Degree / Post - graduate DIPLOMA course in Tsetse and Trypanosomosis Control is co-ordinated by the Department of Paraclinical Veterinary Studies of the Faculty of Veterinary Science, University of Zimbabwe, and the Training Department of the RTTCP.

The RTTCP started in 1986 and aimed to eliminate the tsetse fly from the common fly-belt in Southern Africa through a Regional effort. The European Development Fund (EDF) assisted the four countries, Malawi, Mozambique, Zambia and Zimbabwe, to address the problem of tsetse-transmitted trypanosomosis, or nagana, and to eventually remove the vector from the 322 000km^2 fly-belt.

To fulfil this task, skilled manpower is required in the Region. Professionals and middle level personnel involved in the fight against the disease and its vector need to update their knowledge and skills in control, management and research. Standardisation of methodologies is a priority in achieving tsetse control in the Region. Integration of control methods to support sustainable rural development in a Regional context will guide the development of control strategies.

Course Objectives

The objectives of the Course are to offer specialised training based on modern concepts so as to improve the control of vector-borne diseases, in particular trypanosomosis.

The course aims at providing Veterinarians and Biologists with the technical, planning and management skills required for training, research and co-operation with development programmes and public and private animal health agencies.

Structure and Content of Programme

The Programme is considered as a part-time study. The Course has a modular structure, with three core modules of 4 weeks duration in the first year, and three specialisation modules of 6 weeks duration in the second year. Studies can be completed by an additional third year of research.

The training concept is aimed at achieving theoretical and practical competence, of relevance to students' previous experience, present duties and future responsibilities. Short-term assignments between modules and the research work in Part II will be agreed with the students' employers. Assignments may be linked to form part of the research work.

The content of the Course modules is outlined in the table (opposite).

At the end of Part I, participants will be asked to opt for the Tsetse Unit or the Trypanosome Unit. Single modules in Part I and II can be attended by experienced Tsetse and Trypanosomosis control personnel, not holding a BVSc/BSc degree, as occasional students. A limited number of scholarships for their attendance are available.

Time	Module	Content
Part I		
5/97	1	Perspectives on Tsetse & Trypanosomosis
8/97	2	Planning Tsetse & Trypanosomosis control
11/97	3	Analysis, reports, management
Part II		**Tsetse Unit**
2/98	4	Tsetse biology
5/98	5	Tsetse survey
9/98	6	Tsetse control
Part II		**Trypanosome Unit**
2/98	7	Trypanosome biology
5/98	8	Trypanosomosis survey
9/98	9	Trypanosomosis control
Part III		**Research**
2/99	10	Planning, research & Dissertation

Examination and Degree

Parts I (Module 1-3) and II (Module 4-9) will be examined by continuous assessment, and by formal examination at the end of each module.

Upon successful completion of Parts I and II, participants not proceeding to Parts III will be awarded the **Postgraduate Diploma in Tsetse and Trypanosomosis Control.**

The **Master of Science Degree** will be awarded after a final third year, sucessful completion of Module 10 and acceptance of the Dissertation.

List of MSc STUDENTS

NAME	POSITION	ORGANISATION	COUNTRY
Desman Chigoma	Veterinarian	Department of Veterinary Services	Zimbabwe
Paradzai Muzavazi	Veterinarian	Department of Veterinary Services	Zimbabwe
Andrew Chamisa	Biologist	Department of Veterinary Services (TTCB)	Zimbabwe
Chenjerai Njagu	Veterinarian	Department of Veterinary Services	Zimbabwe
Danial Mudenge[1]	Veterinarian	RTTCP Zimbabwe	Zimbabwe
Linous Munsimbwe	Veterinarian	Dept of Animal Production and Health Services	Zambia
Aubrey Masumbu	Veterinarian	Dept of Animal Production and Health Services	Zambia
Cornelius Mweempwa	Biologist	Dept of Animal Production and Health Services	Zambia
Sonkha Lewis Tembo	Biologist	Dept of Animal Production and Health Services	Zambia
Inocencio Sigauque	Veterinarian	Department of Veterinary Services	Mozambique
Sikhumbuzo Modo	Biologist	Ministry of Agriculture	Botswana
Gideon Kasilagila	Biologist	Tsetse and Trypanosomosis Research Institute	Tanzania
Annette Nassozi	Biologist	Department of Veterinary Services	Uganda

[1] Died April 1998

ANNEX 8

SYLLABUS FOR THE MODULES IN YEAR 1 AND 2 OF THE MSc COURSE

Module 1: Perspectives of tsetse and trypanosomosis

Introduction to the vector

General anatomy, groups and species, distribution in Southern Africa, ecology, population dynamics

Introduction to the disease

Etiology, life cycle, the disease: clinical signs, pathology and diagnosis

Epidemiology

Interaction between host, tsetse and the parasite

Trypanosomosis and livestock production

Production and productivity/mortality, effects on agricultural production, effects on rural income

Disease versus vector control

Advantages, disadvantages

Tsetse and trypanosomosis control: a broader perspective

Important land use parameters, important natural resources parameters, threats other than tsetse control

Module 2: Planning Tsetse and Trypanosomosis control

Strategic planning and implementation

Identification of priority areas, identification of available information, national and regional priorities, linkages between tsetse and trypanosomosis control and land use planning, impact of tsetse and trypanosomosis control in natural resources

Control versus eradication

Control methods (overview), control inputs

Collection of baseline data

Survey and surveillance, data management, data analysis

Recording and reporting

Past and present reporting systems in use, reasons for standardised record sheets, codes used

Module 3: Analysis, Reports and Management

Statistics and introduction to Personal Computers

Data analysis

Introduction to DAVID

Management sub-module

Project cycle management, general management skills, management of large-scale tsetse control operations

Module 4: Tsetse Biology

Insect classification

Anatomy, distribution, behaviour

Tsetse physiology

Reproduction, digestion and metabolism, breeding rates and bionomics

Tsetse identification and ageing

Insecticide testing

Pest control and management

Tsetse monitoring: environmental and biological monitoring
Direct and long-term impact of tsetse control

Module 5:Tsetse Survey

Surveys and surveillance
Application and limitations
Survey methods
Random and systematic sampling
Sampling methods
Mobile and stationary sampling methods
Data recording and analysis
RTTCP survey forms, coding systems, DAVID
Practical field exposure
Tsetse sampling devices
Planning for an operation
Project cycle management

Module 6: Tsetse Control

Methods of control
Chemical methods, Biological methods, Bait technology
Tsetse versus tryps control
Livestock economics
Economic benefits of tsetse control, herd models

Module 7: Trypanosome Biology

Classification of trypanosomes
Ultra-structure, metabolism
Species and lifecycle
Characterisation, Cyclical development, infectivity and virulence, antigenic variation, in vitro culture
The disease
Clinical manifestation in different animals, Immuno response and depression, Anaemia
Pathology
Gross pathology, immuno pathophysiology
Epidemiology
Human sleeping sickness
History, Diagnosis and Control

Module 8: Trypanosome survey

Survey versus surveillance
Application and limitations
Survey methods
Random and systematic sampling
Data recording and analysis
RTTCP survey forms, coding systems, DAVID
Trypanosomosis diagnosis
Diagnostic techniques, Serology trypanosome identification, sampling sites
Field orientation
Cartography, GIS, Meteorology

Planning for survey operations
    Project Cycle Management

Module 9: Trypanosomosis control

Control methods
    Chemotherapy, chemoprophylaxis
Drug use and resistance
    Development of resistance, strategies for management of resistance
Use of synthetic pyrethroids
    Application and limitations
Livestock Economics
    Economic benefits of tsetse control, herd models
Control strategy development

Resource persons involved in the delivery of the MSc Course

Name	Title	Institute	Country
Allsopp, Reg, Mr	Glossinologist	NRI	Botswana
Brinn Peter, Mr	Regional Representative	NRI	Zambia
Bisset John, Mr	Entomologist	Agricura	Zimbabwe
Bvuma Joseph, Mr	Lecturer	University of Zimbabwe	Zimbabwe
Chikukwa A, Mr	Lecturer	University of Zimbabwe	Zimbabwe
Chipoyera Honest, Mr	Lecturer	University of Zimbabwe	Zimbabwe
Chitambo Harrison, Dr	Lecturer	University of Zambia	Zambia
Doran Martin, Mr	Strategy Advisor	RTTCP Regional Office	Zimbabwe
Flint Stanley, Mr	Biologist	RTTCP Mozambique	Mozambique
Gardner A, Dr	Ecologist Consultant		Zimbabwe
Goericke Fred, Dr	Rural Development Consultant		Zimbabwe
Hargrove John, Dr	Consultant		Zimbabwe
Hove Thokozani, Dr	Lecturer	Univeristy of Zimbabwe	Zimbabwe
Joshua R A, Prof.	Lecturer	University of Ibadan	Nigeria
Kelly Peter, Mr	Training & Business Development Consultant	PMTC	Zambia
Kordic Dejan, Mr	Computer Teacher		Zimbabwe
Langley Peter, Prof.	Research Entomologist		United Kingdom
Mangwiro Clement, Mr	Research Biologist (MSc)	T&TCB	Zimbabwe
Masake Rachel, Dr	Researcher	International Livestock Research Insitute	Kenya
Mavhima R, Mr	Lecturer	University of Zimbabwe	Zimbabwe
Milford James R, Prof	Lecturer	University of Zimbabwe	Zimbabwe
Moetsabi Titus, Mr	Communication and Training Advisor	SADC Centre of Communication for Development	Zimbabwe
Mugabe Phanuel, Mr	Lecturer	University of Zimbabwe	Zimbabwe
Mukaratirwa Samson, D	Lecturer	University of Zimbabwe	Zimbabwe
Munstermann, S., Dr	RTTCP Training Co-ordinator	RTTCP	Zimbabwe
Muyoba Godfrey, Dr	HRD & Management Consultant	PMTC	Zambia
Mwangi, Eric, Dr	Veterinarian	KETRI	Kenya
N'dungu Joseph, Dr	Director	KETRI	Kenya
Obwolo Mark, Prof.	Dean	University of Zimbabwe	Zimbabwe
Parker, Andrew, Mr	Technical Officer	IAEA	Austria
Phelps Robert J, Prof.	Retired Glossinologist		Zimbabwe
Robinson Tim, Mr	Information Management Consultant	University of Oxford	United Kingdom
Rowlands John, Dr	Researcher	ILRI	Kenya
Shereni William, Mr	Chief Tsetse Biologist	Tsetse and Trypanosomosis Control Branch	Zimbabwe
Sinyangwe, Lily, Mrs	Researcher	Balmoral Laboratory	Zambia
Sithole G, Mr	Lecturer	University of Zimbabwe	Zimbabwe
Vale Glyn, Dr	Research Co-ordinator	RTTCP Regional Office	Zimbabwe
Van den Bossche Peter, Dr	Technical Co-ordinator	RTTCP Regional Office	Zimbabwe
Wilson Alec, Dr	Ex-Director T&TCB	Coopers	Zimbabwe
Zweygarth Erick, Dr	Veterinarian	OVI	South Africa

PERFORMANCE OF OCCASIONAL STUDENTS ATTENDING SELECTED MODULES OF THE MSc COURSE

Year	Module	Country	Name	Grade	Module	Country	Name	Grade
1997	1	Zambia	B Njovu	Distinction				
	2	Zambia Tanzania	B Njovu G Mashenga	Merit Pass				
	3	Zambia	B Njovu	Pass				
1998	4	Zambia Tanzania	J Lupikisha G Mashenga	Distinction Merit	7	Zimbabwe Zimbabwe Zambia Botswana	H Chikwaya J Machingura A Chupa M Malau	Merit Pass Distinction Pass
	5	Zambia Zambia Tanzania Tanzania Mozambique	J Lupikisha D Munenga G Mashenga J Ukulli A Humberto	Pass Pass Merit Pass Merit	8	Zambia Zimbabwe Botswana Zambia	M Mukumbwali J Machingura M Malau B Njovu	Pass Pass Pass Distinction
	6	Zambia Tanzania Mozambique Botswana	J Lupikisha J Ukulli A Humberto M Malau	Pass Pass Fail Fail	9	Zambia Zambia Zambia Zimbabwe	D Kaluluma A Chupa M Mukumbwali J Machingura	Pass Merit Pass Pass

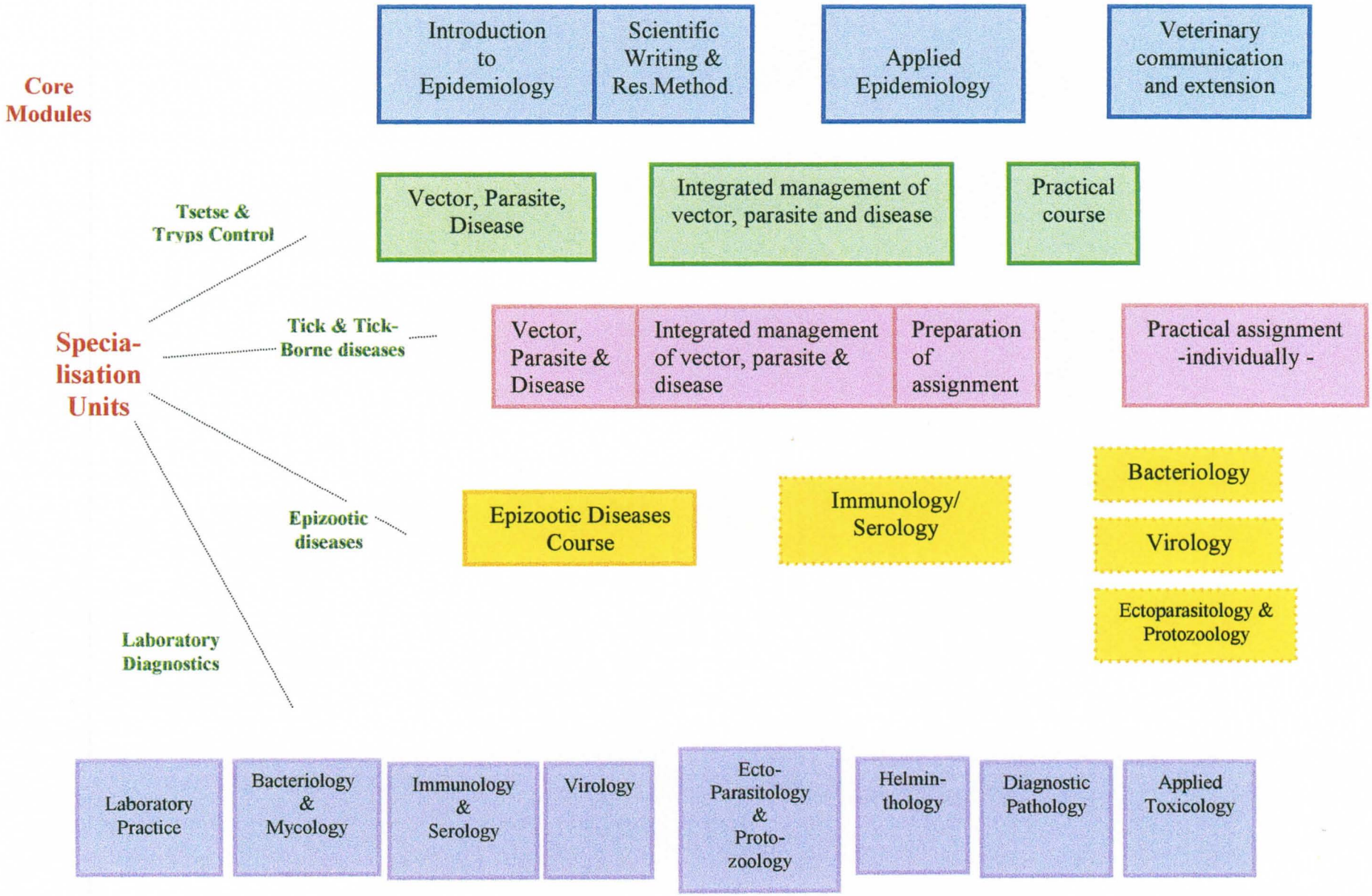
Distinction - 80% & above
Merit - 70 – 79%
Pass - 50 – 69%

ANNEX 10

Research project proposals submitted by the MSc Students

Name	Subject	Associate Supervisor	University Supervisor	Country/Place
A Nassozi	Improvement of the cost-effectiveness of devices for the control of *Glossina fuscipes fuscipes* in Mukono District, of South Eastern Uganda	1. G Vale 2. Kangwagyi, Makerere University	*To be decided in October 98*	Uganda
S Modo	Odour attractants for the tsetse fly *Glossina morsitans centralis*, Machado in Botswana	1. G Vale 2. Steven Torr 3. Mr C Mangwiro	""	Botswana
A Chamisa	Studies on different devices to control and sample *Glossina morsitans and Glossina pallidipes* in Zimbabwe	1. Dr G Vale 2. Dr J Hargrove 3. Mr C Mangwiro	""	Zimbabwe – Reikomitje
C Mweempwa	Responses of tsetse flies (Glossinidae) to odours from animal excretions	1. Dr G Vale 2. Dr Mwangela	""	Eastern Zambia
L Tembo	Towards improved odour dispensers for tsetse control	1. G Vale 2. Prof. Milford	""	Western Zambia
L Munsimbwe	The use of Cyfluthrin pour-on on cattle to manage trypanosomosis in Petauke-Nyimba area, Eastern province, Zambia	1. Dr P Van den Bossche 2. Dr J Mubanga	""	Zambia, Eastern Province
A Masumbu	Prophylactic and chemotherapeutic efficacy of samorin usage in cattle in Sesheke District of the Western Province of Zambia	1. H Chitambo 2. Dr L Makala	""	Zambia, Western Province
I Sigauque	Trypanosomosis in Matutuine District: An epidemiological exercise with emphasis on characterisation of isolate specific disease patterns	1. Dr Luis Neves	""	Mozambique – Matutuine District
G Kasilagila	Survey methods of tsetse flies (Diptera: Glossinidae) in relation to the epidemiology of the disease in Pangani District, North Eastern Tanzania	1. Dr G Vale 2. Dr Msangi	""	Tanzania – Mivumoni Livestock Farm, Pangani District
C Njagu	A vertical and horizontal study of the bovine trypanosomosis situation in Honde Valley and Chisumbanje areas of Manicaland Province using parasitological and serological diagnostic methods	1. Dr P Van den Bossche	""	Zimbabwe
D Chigoma	Study of the decline of anti-trypanosomal antibodies in cattle previously exposed to tsetse challenge, using antibody enzyme linked immunosorbent assay (AB-ELISA)	1. Dr P Van den Bossche 2. John McDermott	""	Zimbabwe – Kotwa
P Muzavazi	The effect of various levels of trypanosomosis challenge on the reproductive performance of cattle	1. Dr P Van den Bossche	""	Zimbabwe

Model of the proposed Regional MSc in Tropical Animal Health



CLOSURE AND HANDING-OVER PROCEDURES

♦ Middle-level training

Twelve middle-level training courses were implemented in 1996 and 1997. No further activities were carried out in 1998. Course reports were produced for each course and details of participants and resource persons were entered in the regional training database. A proposal for institutionalisation of middle-level training was produced but not implemented because the Expert's contract was not renewed.

♦ Management training

Five workshops and seminars in the field of management were held in 1996/97. No further activities were carried out in 1998. Recommendations for management training were made on the basis of a training needs assessment addressing specifically management skills.

♦ Postgraduate training

The Faculty of Veterinary Science appointed two counterparts to the Training Coordinator in February 1998. Thereafter three meetings of the collaborative management group for the handing over of the MSc Course Tsetse &Trypanosomosis Control were held and discussions were minuted. The counterparts produced the enclosed time plan of action for the period October 1998 to December 1999. The Training Coordinator provided questions for the examination, Part II (October 1998) to the counterparts in June 1998. Personal files for MSc and Occasional students and course documentation were compiled and handed over to the counterparts in September 1998.

♦ Management of Training programme

Table 4 summarises all activities pertaining to administrative, personnel, financial and documentation matters that were completed by the end of September 1998, or delegated to the counterparts or the Regional Office.

TABLE 4

CLOSURE AND HANDING-OVER PROCEDURES

SUBJECT	ACTION	COMMENT
1. **FINANCIAL**		
1.1 Regional Office imprest	Hand over to Mr Ngugama	
1.2 CIRAD accounts/invoice	1st quarter 1998 paid; 2nd quarter invoice awaited	3rd quarter to be accompanied by final report & report required under Article 31.1
2. **ADMINISTRATION**		
2.1 Service vehicle	Hand over to Regional Office (AG)	Insurance paid up to 30.9.98
2.2 Office equipment & materials	Hand over to Mrs Mafukidze Compile inventory	Include cell 'phone Retrieve laptop from repair (Regional Office)
2.3 Keys	Hand over to Mrs Mafukidze	
2.4 Reports	Monitoring report for 3rd quarter Prepare milestones for 4th quarter	Agree milestones with Dr Mukaratirwa
2.5 CIRAD reports	See comment above (1.2)	Final report discussed with Prof G Duvallet during his supervisory visit 14-21.9.98
2.6 Staff appraisals	Outline individual targets & performance	Confidential reports send to Regional Co-ordinator
2.7 Hand over meetings	Prepare schedule	Dr Hove unavailable, attending training course abroad
3. **TECHNICAL**		
3.1 1999 Budget	Revise figures with FVSc staff	To be done by Regional Office
3.2 Research project supervisors	List of proposed supervisors to be approved	Submitted to Department on 4.9.98
3.3 Project documentation	Prepare dossier of all reports and course documentation for post-project evaluation	Reports are available at Training Co-ordinator's Office, handed over to Mrs Mafukidze
3.4 September modules	Documentation finalised and compiled	
3.5 Certificates of Attainment for Occasional Students	Prepare Certificates, notify counterparts of students' exam results	Counterpart to provide Certificates to Students once completed

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FACULTY OF VETERINARY SCIENCE

UNIVERSITY OF ZIMBABWE

Management of the Postgraduate Course in Tsetse and Trypanosomosis Control after the departure of the current training coordinator

Administration

The Postgraduate program in Tsetse and Trypanosomosis is based in the Department of Paraclinical Veterinary Studies (Parasitology Section) at the Faculty of Veterinary Science. After the departure of Dr Munstermann, the administrative part will be handled by the Chairperson of Paraclinical. Dr Hove, the course coordinator in Parasitology, will be the training coordinator. In her absence, Dr Mukaratirwa, who is also a parasitologist, will act as the training coordinator. The program will maintain its offices in Block 10 and will remain - autonomous as far as its finances, vehicles, computers and other equipment is concerned. Assistance of the administrator and the personal assistant in running the office will still be needed. Regular meetings will be held with the Dean, the Chairperson, the Training Coordinator and the Regional Coordinator (RTTCP) or his representative to ensure the smooth implementation of the programme. The department would also appreciate Dr Munstermann's assistance in organising and running the September module, if funds permit.

Teaching, Examinations and Projects

May 1998 Module

- Identification of lecturers/tutors has been done.
- Accommodation has to be secured
- Trips to RTTCP field stations have been organized.
- Discuss draft research proposals of students in-house (Drs Hove, Mukaratirwa, Munstermann)
- Set the end of year examinations by June 1998 (Drs Hove, Mukaratirwa, Munstermann, Lecturers)
- Contact the proposed external examiners(2) by May 1998 (Drs Munstermann, Hove)
  1. Dr Coetzer (Tryps modules)
  2. ? (Fly modules)

September 1998 Module

- Secure accomodation for the September module by June
- Identify tutors/lecturers by the end of June (before the departure of Dr Munstermann)
- Discuss/Approve students' project proposals at Departmental level (November 1998)
- Appoint external and internal supervisors (Department)
- Contact external supervisors by December 1998 (Department).
- Organise the final year examinations (theory/practical) (Drs Hove, Mukaratirwa)
- Organise accommodation for Module 10 by December 1998 (Dr Hove)

February 1999 module

- Identify tutors/lecturers for module 10 by mid January 1999(Dr Hove, Dr Mukaratirwa)
- Ensure that all students have supervisors by February 1999 (Department)
- Informal meetings between students and internal supervisors.

March - September 1999

- Visit of RTTCP project sites/external supervisors by the training coordinator at UZ by March 1999
- Visit by students to UZ to consult internal supervisor on progress
- Finalisation of experimental work by June/July 1999
- Write up and finalisation of project (August - October 1999)
- Defense and presentation of project thesis (November 1999)

ANNEX 14

PERSONAL TRAINING

During the three years assignment, the Training Coordinator participated in the following Workshops/Seminars/Training Courses:

- A series of "Project Cycle Management and Logical Framework method" workshops for the Regional Office, held in 1996/97.

- Training course "Train the Trainer", June 1996 (2 weeks), Zimbabwe Institute of Management, Harare.

- Workshop on " Team Development", 2 December 1996, Mazvikadei, Zimbabwe.

- Computer training courses:

  - Power point
  - Office 97 (Word, Excel)

- Management training sub-module of the MSc Course Tsetse and Trypanosomosis Control (see section 5.2.4.)

  - General management skills
  - PCM-Logical Framework methods

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