

European Union

**Pan African Rinderpest Campaign
Ethiopia Programme**

**Consultancy Report
on Implications of Privatisation to the Curriculum
of the Faculty of Veterinary Medicine, University of Addis
Ababa, Ethiopia.**

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LIST OF ABBREVIATIONS

AA	Addis Ababa
AI	Artificial Insemination
AHA	Animal Health Assistant
AHT	Animal Health Technician
CAHW	Community Animal Health Worker
CBPP	Contagious Bovine Pleuro-Pneumonia
DVM	Doctor of Veterinary Medicine
EU	European Union
EVA	Ethiopian Veterinary Association
ILRI	International Livestock Research Institute
MAIR	Motivation, Ability, Idea, Resources
MoA	Ministry of Agriculture
NGO	Non-Governmental Organisation
OIE	Office International des Epizooties
PARC	Pan African Rinderpest Campaign
PRA	Participative Rural Appraisal
SWOT	Strengths, Weaknesses, Opportunities, Threats

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SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Introduction

This three part report (main report, privatisation module and annexes) results from a 'Consultancy to Conduct a Workshop on Management of Private Practice and Provide Technical Assistance to the Faculty of Veterinary Medicine for Curriculum Development on Private Veterinary Practice' (the 'mission'), commissioned by the Pan African Rinderpest Campaign (PARC) project within the Ministry of Agriculture of the Government of the Federal Republic of Ethiopia, in collaboration with the Faculty of Veterinary Medicine of the University of Addis Ababa, which took place from 30 March to 4 May 1998.

The aim of this report is to suggest ways in which the present curriculum of the Faculty of Veterinary Medicine could be developed in the light of changes in the structure of the veterinary profession, particularly with regard to the needs of future animal health personnel (public or private) working within a mixed public/private animal health service. It is one of many contributions to the current wide ranging review and revision of the curriculum of the Faculty of Veterinary Medicine (Debre Zeit).

The mission also included a three day 'Workshop on Business Planning and Management of Private Veterinary Practice / Business Module Development' held from 22-24 April 1998 at the Veterinary School in Debre Zeit for veterinary personnel (DVM, AHA, AHT) in, or interested in, private practice.

The mission arose through PARC's mandate to investigate and recommend means by which the efficiency of veterinary services can be improved with the aim of eradicating rinderpest through reform of veterinary services.

The mission members were three expatriate consultants (a business management expert, a veterinary academician and a field veterinarian) and two national counterparts (a veterinarian, the acting Assistant Dean of the Faculty, and an agricultural economist from the Veterinary Privatisation Programme Office of the Ministry of Agriculture).

The mission collected information, opinions and ideas (using semi-structured interviews, two questionnaires, a 'modular approach to curriculum development', and a review of some literature pertaining to the curriculum of the Faculty, current veterinary services in Ethiopia, and experience from other countries) from students, workshop participants, Faculty staff, public and private sector animal health personnel, and some farmers. The mission included a short field trip (a circuit from Addis Ababa through Debre Berhan, Dessie, Weldiya, Baher Dar and Debre Markos and returning to Addis Ababa).

Conclusions

Privatisation of veterinary services is not an end in itself but is seen as one way of improving animal health services. These recommendations are therefore deliberately wide ranging. As well as preparing animal health personnel for a mixed private/public veterinary service, they are aimed at preparing vets with marketable skills in rural areas and therefore aim to revise the veterinary curriculum in line with the original objective of the Faculty of Veterinary Medicine: the production of good field veterinarians with a practical understanding of the interactions between husbandry, nutrition and disease, who are able to provide a useful service to rural animal owners.

The mission feels that unless privatisation in general (and their mission in particular) is looked at in this wider perspective, the move towards privatisation could lead to veterinarians becoming primarily drug sellers, or based primarily in high potential centres, with little real involvement in subsistence farming system development, and with no real improvement in the service provided to rural farmers.

Recommendations

These recommendations are extracted from the findings and discussion sections and are separated into four groups:

A. Recommendations directly related to privatisation, including:

- a. business and economics:
 - i. business management;
 - ii. introduction to veterinary economics;
- b. the role of private and public services:
 - i. introduction to legislation;
 - ii. models of veterinary service delivery;
 - iii. policy issues.

B. Recommendations aimed at preparing vets with marketable skills in rural areas, including:

- a. incorporation of farming systems analysis, extension and communications etc;
- b. recommendations about pharmacology.

C. Other recommendations about the structure of the curriculum.

D. Recommendations for donors.

A. Recommendations directly related to privatisation:

- A1 That a 1.5 credit hour (ie 24 teaching hours) module be introduced into the final or penultimate teaching year of the curriculum that 'equips students with the necessary skills, knowledge and understanding, and orientates them towards the needs of animal owners in Ethiopia, so that they are able to contribute towards establishing a coherent government livestock policy, and establish self-reliant veterinary practices that contribute towards an improved animal health service' (the full module is presented in Part 2).
- A2 That this module contains, as well as business management training, introductions to veterinary legislation and veterinary economics.
- A3 That apart from the short introduction to legislation in this module, regulation of veterinary services and the details of legislation is dealt with through case studies in relation to specific problems (see case studies in Annex 4).
- A4 That apart from the short introduction to veterinary economics in this module, veterinary economics is offered as a short, optional, final year or post-graduate course.
- A5 That this module includes an introduction to the experience of different models of veterinary service delivery from within and outside Ethiopia.
- A6 That this module also briefly introduces students to any other issues relating to the profession which they will be joining, including the role of the Ethiopian Veterinary Association and encouragement to re-establish their own association of veterinary students.
- A7 That this module be part of the core curriculum; but that if adopted as an optional course, the training described in A2, A5 and A6 be moved into a compulsory course.

B. Recommendations aimed at preparing vets with marketable skills in rural areas:

B1 That the revisions being considered during the current curriculum review remain consistent with the original primary objective of the Faculty of Veterinary Medicine; that is the production of veterinarians who are equipped to work constructively in rural areas.

And to this end:

B2 That all courses be re-orientated towards the practical needs of working veterinarians (and animal health assistants).

B3 That multi-disciplinary approaches be considered wherever possible (eg greater integration of anatomy with the clinical disciplines of surgery, nutrition and obstetrics).

B4 That teaching be practical and participative as much as possible, for example through the development of case studies (eg see Annex 4); and that the Departments of Medicine, Veterinary Public Health, Pharmacology, Microbiology, Epidemiology aim to spend about 10% of their teaching time on case studies.

B5 That the present production courses be kept but that they adopt an analytical, problem solving, 'farming systems approach'; enable vets to work constructively with indigenous knowledge; and embrace training on extension and communication (including participative learning and action methodologies).

B6 That the clinic (a great resource to the Faculty) returns to a more central place in the training, with more structured allocation of student duties (eg if sick animals are mainly brought to the clinic early in the morning, the teaching timetable should accommodate this).

B7 That a veterinarian with an interest (and preferably experience) in clinical work should be recruited specifically to run the clinic and to organise the involvement of students in the work of the clinic.

B8 That in conjunction with the clinic, the resource of local farms - whether subsistence, commercial or research - should be used more during the course, with the current farm visits developed to include longer, more analytical projects or student attachments.

B9 That pharmacology training (where possible through case studies) enables students to understand the market of drug retailing and biologicals (vaccines); and the epidemiological and economic effects of drugs and biologicals in the different animal production systems of Ethiopia.

C. Other recommendations about the structure of the curriculum:

C1. That the overall number of theoretical teaching hours / credit hours be reduced to allow time for more practical and problem solving teaching, and more field visits.

C2. That the primary product of the Faculty be a practical rural veterinarian, and that further specialisation be introduced through optional final year, or short post-graduate courses.

C3. That these short courses could include options for greater specialisation on academic disciplines; research orientated studies; veterinary economics for those interested in project management; small animal surgery etc.

C4. That ways to improve access of students and lecturers to current journals and other literature be investigated, possibly using the Internet, and possibly through an Information Technology link with ILRI in Addis Ababa.

C5. That students should spend part of their vacations 'seeing practice' with working vets (private or otherwise) in order to increase their practical experience.

C6. That lecturers be given funds (travel costs, per diems and allowances) to visit the field with the aim of refining their courses after discussion with a range of veterinarians (field and research).

C7. That, If Ethiopia is thinking of an export market for its animal products after rinderpest has been eradicated, training be given on the implications of the residues of veterinary drugs in these products.

C8. That if the course is to be reduced in overall length (and geared towards producing an 'appropriate professional' as has been discussed in some fora on revision of veterinary services) the Faculty consider cutting its credit hours in half (so that each credit hour equals eight teaching hours), encouraging lecturers to focus their disciplines on the practically applicable content.

D. Recommendations for donors:

- D1 In order to assist the Faculty of Veterinary Medicine of the University of Addis Ababa to revise and update its curriculum so that it can continue to produce veterinarians and animal health assistants with training appropriate to the changing animal health service needs of Ethiopia, donors are recommended to consider offering financial assistance to the Faculty for specific activities, for example:
- i funding for training of lecturers on participatory training, farming systems approaches, syllabus development and other appropriate continuing professional development topics;
 - ii funding for field visits by lecturers to assist them in modifying their syllabuses in line with the needs of field vets;
 - iii funding for internet access for lecturers and students as a cost effective way of accessing experience and research findings from around the world, including support for a close Information Technology link with ILRI in Addis Ababa;
 - iv assistance in up-grading clinic facilities if the course is re-structured so as to make the clinic more central to the curriculum; and assistance in providing transport for study visits by students if there is a move towards farming systems analysis and practical, on farm, teaching.

PART 1

INTRODUCTION

Background to mission

This report is one product of a 'Consultancy to Conduct a Workshop on Management of Private Practice and Provide Technical Assistance to the Faculty of Veterinary Medicine for Curriculum Development on Private Veterinary Practice'. The consultancy took place from 30 March to 4 May 1998.

The second product of the consultancy was a three day 'Workshop on Business Planning and Management of Private Veterinary Practice / Business Module Development' held from 22-24 April 1998 at the Veterinary School in Debre Zeit for veterinary personnel (DVM, AHA, AHT) in, or interested in, private practice.

This report is divided into 3 parts:

- Part 1 is the main body of the report;
- Part 2 contains details of the 'Workshop on Business Planning and Management of Private Veterinary Practice / Business Module Development' and the Privatisation module that emerged from it;
- Part 3 contains the Annexes.

The consultancy was commissioned by the Pan African Rinderpest Campaign (PARC) project within the Ministry of Agriculture of the Government of the Federal Republic of Ethiopia, in collaboration with the Faculty of Veterinary Medicine of the University of Addis Ababa.

The aim of the PARC project is to eradicate Rinderpest through reform of veterinary services, and to this end is mandated to investigate and recommend means by which the efficiency of veterinary services can be improved. Privatisation of parts of the service is one possible means, because it is now widely believed that private clinical services can be cheaper and more effective than clinical services run through government, particularly where public funds are limited.

The aim of this report is to suggest ways in which the present curriculum of the Faculty of Veterinary Medicine could be developed in the light of changes in the structure of the veterinary profession, particularly with regard to the needs of future private practitioners. The Veterinary School is already in the process of reviewing and revising its curriculum, and this report contributes to this process.

Mission members

The mission consisted of three expatriate consultants and two national counterparts, one a representative of the Faculty of Veterinary Medicine, the other a representative of the Ministry of Agriculture.

The three expatriates included a Business Management expert from Kenya who is currently managing the Kenyan Veterinary Association's Privatisation Scheme; a senior veterinary academician (in parasitology and farming systems analysis) from the Netherlands with extensive tropical field experience; and a field veterinarian from Britain with particular experience in veterinary service delivery systems for rural areas (in Africa and Asia), as well as experience of government service, private practice and non-governmental organisations. The last was also team leader.

The counterpart from the Faculty of Veterinary Medicine was the acting Assistant Dean, and Head of the Department of Pathology and Parasitology. The counterpart from the Ministry of Agriculture was the agricultural economist from the Veterinary Privatisation Programme Office.

Interpretation of mission

The Terms of Reference for the mission are included in Annex 1. The consultants chose to interpret the scope of their mission broadly for two reasons.

First, the rationale for privatisation is to improve the delivery of veterinary services throughout the whole country, not just in the high potential areas which have provided the early opportunities for private veterinary practitioners in Africa. The consultants attempted to gain as thorough an understanding as possible (within the duration of their mission) of current veterinary services in Ethiopia, in order to make rational suggestions and recommendations that reflect the need to extend effective veterinary services to rural areas.

Second was to take advantage of the particular skills and experience of the mission members as chosen and approved by both the Faculty of Veterinary Medicine and the Ministry of Agriculture.

The broad approach was given support by the commonly expressed concern that privatisation would end up only serving the needs of the more wealthy and would not give any benefit to remote areas or poorer animal owners and their animals.

The following two sections place the mission in the context of the Pan African Rinderpest Campaign and the Faculty of Veterinary Medicine.

Context: Pan African Rinderpest Campaign

One of the pre-requisites of the Pan African Rinderpest Campaign (PARC) was the rehabilitation of the veterinary services. The reason was that the donors did not want to be confronted with the situation after the JP15 project in the 1980s, whereby the run down of the services caused a major outbreak of rinderpest in west and east Africa.

Although the control policy of contagious diseases must remain the direct responsibility of the government veterinary service, it does not mean that all the tasks should be carried out by personnel employed by the government.

Moreover, the poor ratio between funds available for staff salaries and for capital / recurrent costs, was an extra motive to stop the automatic recruitment of all graduates coming from veterinary faculties and institutes for animal health assistants and technicians.

Another aspect of the rehabilitation of the veterinary services was the adoption of cost recovery mechanisms for clinical services, non-compulsory vaccinations and drugs.

PARC was therefore formulated as a programme to eradicate rinderpest through reform of veterinary service delivery systems in Africa, including Ethiopia, whereby access to services to even the most remote areas and subsistence farmers was a major aim. PARC programmes have therefore set goals of liberalisation of trade of drugs and vaccines, stimulation of public service delivery (including community animal health workers) and elimination of subsidies, in order to stimulate wider availability of services.

The speed by which these different goals are fulfilled differs greatly amongst African countries. Ethiopia is in this respect at an early stage, with privatisation of veterinary services just in its infancy. In the regions of Addis Ababa, Amhara and Oromiya in 1997, there were 23 animal health personnel in private employment compared to 664 in public employment; and the mean number of annual licenses issued for private animal health businesses had declined over the previous three years because of an adverse business/policy environment due to unfair competition by the public sector. In April 1997, of 457 animal health businesses registered in Ethiopia, only 61 were for clinics or animal health posts. Some of these have since gone out of business. Most animal health business ventures only trade in drugs. (Figures from 'Consultancy Report on Cost Recovery in Delivery of Animal Health Services Report', PARC Ethiopia, 1997).

Context: Faculty of Veterinary Medicine

The Faculty produces about 75 animal health assistants and about 25 veterinary graduates each year.

The animal health assistant course is a two year diploma course. Both years are taught at the Veterinary School.

The veterinary course lasts 6 years and results in a Doctor of Veterinary Medicine Degree. The first year is spent at the science faculty in Addis Ababa, the middle four years at the Faculty, and most of the sixth year is spent out in an externship programme.

The veterinary course is divided amongst 7 departments:

1. The Department of Basic Sciences
2. The Department of Anatomy and Embryology
3. The Department of Physiology, Pharmacology and Biochemistry
4. The Department of Pathology and Parasitology
5. The Department of Microbiology, Infectious Diseases and Veterinary Public Health
6. The Department of Clinical Studies
7. The Department of Zootechnology

In line with other academic institutions in the country, the Veterinary School is already conducting its own curriculum review. An internal review will be followed by an academic peer review, and finally a review workshop to which other animal health service stakeholders will be invited.

The process of review is seen as being in line with similar reviews taking place in academic institutions throughout Africa (and indeed the world) with the objectives of:

- optimising resources,
- reducing costs,
- making the course more appropriate to the changing shape of veterinary services,
- exploring the possibility of reducing the length of the veterinary course,
- and exploring the possibility of charging students.

If the policy of charging students for their courses is adopted, it is anticipated that some courses, if under-subscribed but considered of national importance, would be supported by scholarships. If scholarships were to be awarded for a veterinary course, it is anticipated that they would be targeted at students from particularly livestock-rich areas, such as pastoral areas. These tend to have poorer primary and secondary schools than high potential areas, and therefore are under-represented amongst current veterinary graduates. However a policy of positive selection for such students (and females) has already been tried but met with limited success because it was not backed by the resources needed to coach the students initially to the standard of their peers.

An overseas consultant has recently visited, examined the curriculum for one month and written a report suggesting changes to the curriculum (this report was not available for consultation).

METHODS AND AREAS OF INVESTIGATION

Methods of investigation

Four methods were used to collect information:

- semi-structured interviews;
- questionnaires;
- a 'modular approach to curriculum development';
- review of some literature pertaining to the curriculum of the Faculty, current veterinary services in Ethiopia, and experience from other countries.

Semi-structured interviews were conducted with:

- veterinary personnel employed within the Faculty of Veterinary Medicine (including 6 of 7 Heads of Department and other members of the Faculty);
- fifth year veterinary students;
- second year Animal Health Diploma students;
- veterinary personnel employed within the federal Ministry of Agriculture (including PARC);
- veterinary personnel employed within regional Ministries of Agriculture in Debre Berhan, Dessie and Bahir Dar (including PARC);
- veterinary personnel in private employment;
- a group of farmers near Dessie.

Two questionnaires were used.

- A 'Business Management Questionnaire' investigated constraints to establishing private business and training needs; and was completed by 4 veterinary personnel currently in private practice and 7 currently in public service.
- A 'Veterinary Service and Curriculum Questionnaire' investigated ideas and experience about current veterinary services and veterinary curricula. It was completed by 6 Doctors of Veterinary Medicine (DVM) trained at Debre Zeit, 11 DVMs trained elsewhere, and 9 Animal Health Assistants (AHAs) trained at Debre Zeit.

The participants of the 'Workshop on Business Planning and Management of Private Veterinary Practice / Business Module Development' spent part of the third day working through the first part of a modular approach to curriculum development in order to help define what needs to be reviewed in the veterinary curriculum in the light of the current changes to veterinary services, particularly with respect to privatisation.

These methods were chosen in order to gather a wide range of opinions and ideas within the short time available. No attempt was made to analyse statistically the data collected by these qualitative methods of investigation as this would have been inappropriate. All information from the interviews and questionnaires is included in Annex 7.

Areas of investigation

The following areas were investigated:

- Issues relating to the current delivery of veterinary services, and ideas about the future.
- Issues relating to content of current work, whether public or private.
- Issues relating to the curriculum of the Faculty of Veterinary Medicine.

FINDINGS

Annex 7 contains information from interviews and questionnaires, grouped but otherwise un-interpreted by the mission. This section summarises the findings relevant to the discussion and recommendation sections.

Issues relating to the delivery of veterinary services, including:

- **current service delivery issues;**
- **ideas on veterinary service delivery.**

At present the majority of formal veterinary services in Ethiopia are provided by regional government through a network of stationary clinics attended by vets, AHAs or AHTs. The government recovers the cost of most drugs used for treatment of clinical cases but all vaccination and service costs are free. Animal owners within 7-10kms of a clinic walk their sick animals to the clinic; those beyond 7-10kms tend only to call upon government services if there is a disease outbreak.

It is generally accepted that a substantial number of rural animal owners do not have effective access to formal veterinary services and that this is a major constraint to the productive use of Ethiopia's enormous livestock resource. In some pastoral areas the formal service is virtually non-existent, i.e. Afar and Somali Regional States.

Incomplete cover and other deficiencies in the government service have left gaps which are filled variously by traditional healers, other local private practitioners, networks of community animal health workers (linked to NGOs or Ministry animal health staff), licensed and unlicensed drug sellers, and licensed private stationary or mobile clinics.

Amongst these alternative services, veterinarians are under-represented except in a few wealthier centres. This is partly because it is difficult for a veterinarian to explore ways to exploit his/her professional advantage over lesser trained animal health personnel, and make an acceptable living, in the face of the heavily subsidised service provided by the government.

At present animal health personnel have little involvement in providing advice to farmers on husbandry, nutrition or breeding. It was generally felt that training in extension and farmer communication would assist veterinarians in working with and providing a service to farmers. Training in other areas (such as veterinary economics) could also widen the opportunities for useful involvement of veterinarians in the livestock sector.

While it is generally accepted that the current service is inadequate and economically unsustainable, it remains unclear what model of veterinary service would be more effective and more economically sustainable in a rural area, and what the roles of the different types of veterinary personnel should be within it. Thoughts about the role of privatised services vary. Some consider that they will only be viable in higher potential areas.

Current constraints to the government service relate to lack of funds and long procedures. Whether privatisation progresses or not, a move towards full cost recovery by the government for clinical treatment services and non-compulsory vaccinations is widely considered a necessary first step towards improving the current problems.

It was also recognised that veterinary services have a wider social role than just animal production, for example in the facilitation of local government administrative activities.

While there is a widely felt desire to develop a better animal health service, there is also concern that the poorer farmers could end up in a worse situation as a result of any changes. It is likely that some form of government subsidy will continue to be needed in poorer areas, whether through continued direct government employment of animal health staff, or by contracting specific services (sometimes called 'Sanitary Mandates') to private practitioners.

Constraints to the establishment of private veterinary practice.

The main constraints to the establishment of private veterinary practices as reported by informants (not ranked) are:

- lack of awareness in the country about the importance of animal health services, and their potential for contributing towards improving both human and animal welfare within the country;
- lack of awareness about the privatisation programme's aims both within the profession and among the administration;
- competition from a heavily subsidised government veterinary service;
- competition from illegal drug sellers;
- difficulty in accessing drugs in the face of competition from illegal drug traders;
- licensing problems - both difficulties in getting licenses, and unethical use of licenses by some animal health personnel;
- deficiencies in the legislative framework and no enforcement of existing regulations concerning veterinary practice and drug sales;
- financial constraints (including raising the necessary collateral and equity required by the PARC loan programme);
- lack of business experience and skills.

Issues relating to the curriculum of the Faculty of Veterinary Medicine, including:

- **technical issues;**
- **contextual issues.**

The loudest message about the curriculum of the Faculty, both from students and lecturers, is the need for a more practical course. In conjunction with this, there needs to be a reduction in the total number of credit hours, less duplication and greater integration between courses, emphasis on problem solving, on-farm farming systems analysis, and greater attention to clinical work. Communication and extension skills (including participative learning and action methodologies), and some training on working with indigenous animal health knowledge, should be a part of these.

It is felt that some earlier initiatives in this line (use of the clinic, farm practice for students during their holidays etc) have fallen by the way side and should be revived. It is also felt that the externship programme in the sixth year is not achieving its full potential, for example in preparing students to engage in practical farm based research.

Lack of opportunities for staff training in teaching methodologies and for continued professional development contribute to these problems, as is low motivation as a result of no additional payment for clinical work. Unfortunately the situation creates a vicious circle as new graduates are then weak in practical skills.

With particular reference to privatisation, there is a felt need for basic business training while still at university. This should include introductions to concepts and principles of veterinary legislation, regulations and economics, but full courses in these would not be appropriate for under graduates.

Various specific examples were given for courses which could be better integrated (eg nutrition and range management, clinical pathology with patho-physiology, anatomy with relevant clinical disciplines), reduced in amount (eg basic sciences already taught at high school) or otherwise improved (most examples refer to making subjects less theoretical and more practical). There are also suggestions for new or further developed courses (eg botany in conjunction with toxicology, nutrition and indigenous technical knowledge, epidemiology and economics).

There is also a need for continued professional development courses which could be provided by the university in a number of areas from general refresher training through to specific new courses. The possibility that regional Ministry of Agriculture offices might be able to pay for these was mentioned.

Pharmacology and Legislation

In view of the importance of drug sales to the viability of veterinary practice, and the concern expressed about government policy and illegal drug traders, the findings on the subjects of pharmacology and legislation are presented separately, discussed further in the next chapter, and incorporated into case studies on rinderpest and tsetse/trypanosomosis (see Annex 4).

Pharmacology

From the analysis of the questionnaire, combined with interviews and discussions, the following findings can be reported:

- the major source of income for the private veterinary sector (veterinarians and animal health assistants) is the sales of drugs;
- the private sector feels an unfair competition from the public sector in the form of accessibility to vaccines, sales of subsidised drugs by the public sector and illegal practices;
- none or poor payment for vaccination (in case of emergency) for the private sector;
- no advice is given to the farmers by most of the retailers on the use of drugs and their influence on the production of the animals;
- private practitioners felt the need for more information relating to pharmacology.

Legislation

From the analysis of the questionnaire, combined with interviews and the discussions during the workshop, the following findings can be reported:

- the private sector feels insecure, because their roles and duties are not clearly defined and feels hampered in their tasks by the public sector (vaccination, use of drugs etc.). They also noticed that their liability is poorly defined.
- it was also mentioned that almost any drug, whether legally or illegally obtained, can be used by any person, whether qualified or not. This situation has negative effect on the sales of drugs by private practitioners. They must guarantee the quality of their products and they must also compete with drugs available through public servants against subsidised prices;
- the government has developed a policy on rinderpest control although good legislation supporting this policy is lacking, eg in delineating the role of the private sector (see case study rinderpest).

DISCUSSION

Privatisation module

For the full report and results of the privatisation module and business management aspects of the mission, see Part 2.

There was a widely expressed feeling that some business management training was desirable during the veterinary course to prepare students for the idea of private practice. A 1.5 credit hour module has been developed by the mission in collaboration with 36 veterinarians who attended the 'Workshop on Business Planning and Management of Private Veterinary Practice / Business Module Development'. It was recommended by the workshop participants that this would be most appropriately given in the last or penultimate year of the course. The module is presented in Part 2. It could be presented as a continuing series of lectures, or as a block module. It is recommended as a part of the core curriculum, but could be given as an optional course. If it was given as an optional course, it is recommended that the introductory courses to legislation, veterinary economics, and different models of animal health service delivery (including the rationale for privatisation and the different roles and responsibilities of the public and private sectors) be given in a core lecture series.

Complementary to the findings relating to needs for business planning and management skills were the wider findings about veterinary services and the roles of animal health personnel generally.

Veterinary services and the role of vets.

If effective veterinary clinical services are not reaching large areas of Ethiopia, and if this is a cause of concern to the country, a solution to the problem has to be found.

Despite the present regional programmes of building new clinics and training new AHTs, past and current experience in Ethiopia (and from other parts of Africa and the world) suggest that this is not a sustainable solution because the government cannot afford to provide such a service in the long term, cost recovery mechanisms are not in place and there is no mechanism for clinics to revolve their own funds, and the logistics of adequately restocking the necessary density of clinics in remote areas would be unrealistically complicated.

General agreement was felt on the following four points:

- that a vet cannot make a living by providing clinical services directly to farmers in remote areas;
- that it is not desirable for vets just to become drug sellers;
- that it is not desirable for vets to be working only in high potential areas; and
- that it is desirable for vets to be practically involved in providing animal health services in rural areas.

The mission feels these should be expressed in the animal health policy of the Ethiopian government.

Even if the government continues to take responsibility for remote areas, veterinary personnel still have to address the problem of how to improve the service. Therefore in discussing veterinary services and the role of vets in rural areas, the challenges for both private and public sectors are the same.

If the government stops providing employment to all new graduates, as is starting to happen, and they cannot all go into research or industry, there will be an increase in the number competing in the private market against AHAs and AHTs. Unless vets have a practical advantage over AHAs and AHTs, they will not be able to sustain their higher expectations, will become disillusioned and may fail in their business.

So, what can vets do? The veterinary faculty has a central role in preparing vets and AHAs for the reality of an uncertain veterinary future.

There is currently debate about whether vets should drop animal husbandry and nutrition altogether, or embrace these complementary disciplines even more closely. The mission feels that this is not a real debate because the first is not a real alternative. The majority of diseases result from a combination of factors which include husbandry and nutrition, and vets must make a living by dealing with diseases in relation to these other factors.

The message that has come through strongly in this mission from members of the faculty, students and field vets is that the faculty should return to its initial mandate to train vets who will have a useful practical role in the field. Coming through equally strongly is the message that the way to achieve this is to make the curriculum less theoretical and more practical, integrate complementary disciplines, embrace problem solving and analytical teaching methodologies including farming systems analysis, learn and teach about extension and communication, provide tools through the use of which vets can work constructively with indigenous veterinary knowledge, and use the clinic at the Faculty and the animal owners around Debre Zeit as more of a resource.

Such a restructuring would produce graduates confident to go to farms or work with groups of farmers, to analyse with them their farming system, identify constraints or factors pre-disposing to disease, and to work out with them practical solutions. Even if there are not simple solutions, the experience of other countries where vets have started to embrace participative extension methods, is that the farmers like the attention from the vets and use their services more.

At the same time students (and faculty members) need to access experience from within Ethiopia and from other countries. By examining new ideas in veterinary service provision, they can decide objectively whether to use ideas such as farmer training (provided by veterinary practices in many countries) or training of other support personnel (such as community animal health workers) and if so, how to do them well.

With the power of the internet, the easiest way to access some of this information would be electronically. It is therefore suggested that the Faculty applies for funds to set up an internet connection and also an information technology link with ILRI in Addis Ababa. Because of the cost of an internet connection and telephone line, it may prove necessary to limit internet searches to specific case studies when specific information needs have been discussed and agreed within the student group.

The mission was interested to hear that the fourth year students have approached the Ethiopian Veterinary Association for information about its work and role. Students should be supported in taking an interest in the profession which they will be joining, and current issues that are affecting it. Apparently there used to be an association of veterinary students which has now ceased to function; its revival would be a positive step.

Other points about the curriculum

A number of people mentioned 'epidemiology and economics' as a combined subject in which they would have liked more training. The reasons given included better understanding of vaccination programmes, and help in planning livestock projects at regional level. The mission feels that these subjects should be introduced during the core curriculum, but that more detailed study would be more appropriate to an optional or post graduate course. It is noted that the Faculty offers a two year MSc course in this subject but also notes that the number of people able to do two year MSc courses is limited. It is suggested that a shorter course be developed in conjunction with the MSc course.

It was mentioned during discussions at the faculty that 'cost sharing' by students and a reduction in the total length of the course were being considered. Even without a reduction in the total length of the course, it was widely felt by informants, both within and outwith the Faculty, that the total number of credit hours should be reduced to make space for more practical training. While the ratio of theoretical to practical teaching is apparently stipulated in University regulations, better use of practical time and imaginative use of participative theoretical training would help to improve the balance of the course.

The mission strongly recommend that the curriculum review introduces more participative training methodologies, more case studies, more cross disciplinary training, and more problem solving and analytical work, with some of this work being on-farm. The production courses should stay in the curriculum but should be revised towards an integrated farming systems approach and should include extension and communication methodologies. By extension in this context, the mission means the theory and application of different extension methodologies, not just learning how to deliver pre formed extension messages or packages. Extension in this context includes participative rural appraisal methodologies that can be used to facilitate simple on farm farming systems analysis.

Participative extension and communication methodologies rely on examining, analysing and then building on local knowledge. Changes in the course to include these methodologies would therefore partly satisfy the expressed need for more training on indigenous knowledge. Introductory studies in botany would complement the methodological training regarding indigenous knowledge, would assist in making nutrition lectures more practically relevant and would help clarify teaching on toxic plants.

'Seeing practice' by students in their holidays (as is done in Britain, for example) would be one way of increasing exposure to practical work without eating into the core curriculum time. Apparently there used to be a similar programme of students working on farms during holidays in the earlier years but that programme has ceased. It too could usefully be revived. Private vets and AHAs met during the field trips said they would be prepared to take students for short periods of time; this would obviously have to be investigated further.

If the Faculty is to reduce the total number of credit hours, at least some subjects will have to trim their syllabuses. The team did not feel it would be appropriate to give detailed recommendations about individual subjects. That is a job for the faculty. However it is recommended that lecturers be given the opportunity to visit field veterinarians to discuss the practical application of the contents of their teaching so as to be in a better position to decide how to revise their work. This would need to be supported financially with per diems and travelling costs.

It is also recognised that lecturers themselves require teacher training, particularly if they are to remain up to date with teaching methodologies. This will also require resources and time.

A number of informants requested computer training. The mission suggests that computer skills should be taught as necessary (for example in relation to how to use the internet) rather than as a separate subject.

Pharmacology and Legislation

As in the previous chapter, these subjects are treated as special cases.

Pharmacology

As private practitioners have expressed a need for further information relating to pharmacology, the faculty could increasing the amount of time (presently 3% of the curriculum) allocated to the subject. Pharmacology training (where possible through case studies) should enable students to understand both the full picture with respect to market of drug retailing and biologicals (vaccines); and the epidemiological and economic effects of drugs and biologicals in the different animal production systems of Ethiopia. In the latter section there would need to be collaboration with epidemiology and economics.

If privatisation would only mean income generation by the sales of drugs, it has not fulfilled its aim ie access to services, even for the subsistence farmers in the most remote area's. This is a long process. The most realistic approach would be to produce veterinary graduates who can advise the farmers on animal production (which would require extension skills), whereby preventive animal health care is an important component and the use of drugs forms an integral part of animal management. This model, whereby the veterinarian is paid by the hour for his advice and charges the farmer

separately for drugs, is a common model in developed countries. There are no reasons, however, to believe that this system cannot work under commercial dairy, poultry and pig production systems in Ethiopia.

The next step would be to do this for emerging farmers ie subsistence farmers who start to produce for the market. The extension method should be more on a collective base and aimed at AHAs, AHTs and CAHWs but the message should remain the same ie drugs are only a contributory factor in animal production. The sales of drugs or biologicals is still supervised by the veterinarian but all the different levels get their share out of the sales of drugs.

The subsistence farmer is the most difficult category to reach, but here also the private veterinarian should devote some of his time to educate the AHAs, AHTs and CAHWs working under him to understand that drugs and biologicals are only one factor in animal production.

Another aspect, although more for the future when Ethiopia is declared free of rinderpest and is thinking more specifically about building an export market for its animal products, are the residues of drugs in meat and milk and their hazards for human health. Under pressure of the affluent (urban) consumer and the demands by importing countries, an integrated chain surveillance should be developed for specific production sectors.

Legislation

It has been mentioned to the mission that the central administration has been discussing a new body of legislation for the veterinary profession over the last 10 years. A definite version, however, is still not ready. It would be too easy to blame the authorities concerned on this omission. Rather it is more a signal, how complicated it is both in developing and in developed countries, to write good veterinary legislation. Several respondents to the inquiry have indicated that the lack of a good legislation has held them back from starting a private practice.

For the staff at the veterinary faculty it is therefore difficult to teach the present legislation. It should think, however, with the students what is required for the future. In practice the private and public sector work side by side at the moment, but if privatisation continues it will be a very unsatisfactory situation, if a legal basis is lacking for their work. We are not suggesting that the staff of the veterinary faculty should develop a veterinary legislation, but that various disciplines develop ideas on which items and what kind of legislation is required. This could be part of a case study how the private and public sector work together in the control of eg. rinderpest and what part legislation could play in it. In Annex 4 such a case study is worked out in detail for rinderpest.

The adoption of appropriate animal health legislation, that defines the rights, duties and obligations of the public, private and community sectors involved in animal health service delivery is therefore required. It should cover standards and licensing, registration of professional, sub-professional and community based personnel as well as drug importers, distributors and retailers. It must also result in practical policies to restrict or eliminate unfair competition between state and private services especially during any transition period to a subsidy free sector. Legislation should protect the private practice against liabilities, but a veterinarian should have the ultimate responsibility for the work carried out by the lower echelons.

In most veterinary legal systems three types of drugs/biologicals can be distinguished.

Drugs available to everybody and sold by retail shops e.g. insecticides,
Drugs which can only be used under supervision of a veterinarian e.g. antibiotics
Drugs which can only be used by a veterinarian e.g. vaccines, opiates etc.

For Ethiopia it is perhaps sufficient to have two categories.

In nearly all countries it is the central government that defines its disease control policy. For this it requires a good epidemiological and veterinary economic unit, supported by legislation.

The licensing of veterinary personnel is sometimes done by professional bodies, in other countries by the government. The solving of conflicts regarding ethical conduct, supervision of activities by the private and public sector can either be done by the government or by an independent inspectorate.

In relation to the curriculum, the mission feels that, apart from the introductory lecture, legislation should be taught through case studies by different staff members, with consideration of what aspects would be 'desirable items for the future'. An alternative would be that one staff member teaches all legal aspects, as is often followed in those veterinary schools where most of the students end up in private practice and in countries where a more or less fixed legal basis exists. Even when this situation pertains in Ethiopia, a case study approach should be retained.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

Privatisation of veterinary services is not an end in itself but is seen as one way of improving animal health services. These recommendations are therefore deliberately wide ranging. As well as preparing animal health personnel for a mixed private/public veterinary service, they are aimed at preparing vets with marketable skills in rural areas and therefore aim to revise the veterinary curriculum in line with the original objective of the Faculty of Veterinary Medicine: the production of good field veterinarians with a practical understanding of the interactions between husbandry, nutrition and disease, who are able to provide a useful service to rural animal owners.

The mission feels that unless privatisation in general (and their mission in particular) is looked at in this wider perspective, the move towards privatisation could lead to veterinarians becoming primarily drug sellers, or based primarily in high potential centres, with little real involvement in subsistence farming system development, and with no real improvement in the service provided to rural farmers.

Recommendations

These recommendations are extracted from the findings and discussion sections and are separated into four groups:

A. Recommendations directly related to privatisation, including:

- a. business and economics:
 - i. business management;
 - ii. introduction to veterinary economics;
- b. the role of private and public services:
 - i. introduction to legislation;
 - ii. models of veterinary service delivery;
 - iii. policy issues.

B. Recommendations aimed at preparing vets with marketable skills in rural areas, including:

- a. incorporation of farming systems analysis, extension and communications etc;
- b. recommendations about pharmacology.

C. Other recommendations about the structure of the curriculum.

D. Recommendations for donors.

A. Recommendations directly related to privatisation:

- A1 That a 1.5 credit hour (ie 24 teaching hours) module be introduced into the final or penultimate teaching year of the curriculum that 'equips students with the necessary skills, knowledge and understanding, and orientates them towards the needs of animal owners in Ethiopia, so that they are able to contribute towards establishing a coherent government livestock policy, and establish self-reliant veterinary practices that contribute towards an improved animal health service' (the full module is presented in Part 2).
- A2 That this module contains, as well as business management training, introductions to veterinary legislation and veterinary economics.
- A3 That apart from the short introduction to legislation in this module, regulation of veterinary services and the details of legislation is dealt with through case studies in relation to specific problems (see case studies in Annex 4).
- A4 That apart from the short introduction to veterinary economics in this module, veterinary economics is offered as a short, optional, final year or post-graduate course.
- A5 That this module includes an introduction to the experience of different models of veterinary service delivery from within and outside Ethiopia.

- A6 That this module also briefly introduces students to any other issues relating to the profession which they will be joining, including the role of the Ethiopian Veterinary Association and encouragement to re-establish their own association of veterinary students.
- A7 That this module be part of the core curriculum; but that if adopted as an optional course, the training described in A2, A5 and A6 be moved into a compulsory course.

B. Recommendations aimed at preparing vets with marketable skills in rural areas:

- B1 That the revisions being considered during the current curriculum review remain consistent with the original primary objective of the Faculty of Veterinary Medicine; that is the production of veterinarians who are equipped to work constructively in rural areas.

And to this end:

- B2 That all courses be re-orientated towards the practical needs of working veterinarians (and animal health assistants).
- B3 That multi-disciplinary approaches be considered wherever possible (eg greater integration of anatomy with the clinical disciplines of surgery, nutrition and obstetrics).
- B4 That teaching be practical and participative as much as possible, for example through the development of case studies (eg see Annex 4); and that the Departments of Medicine, Veterinary Public Health, Pharmacology, Microbiology, Epidemiology aim to spend about 10% of their teaching time on case studies.
- B5 That the present production courses be kept but that they adopt an analytical, problem solving, 'farming systems approach'; enable vets to work constructively with indigenous knowledge; and embrace training on extension and communication (including participative learning and action methodologies).
- B6 That the clinic (a great resource to the Faculty) returns to a more central place in the training, with more structured allocation of student duties (eg if sick animals are mainly brought to the clinic early in the morning, the teaching timetable should accommodate this).
- B7 That a veterinarian with an interest (and preferably experience) in clinical work should be recruited specifically to run the clinic and to organise the involvement of students in the work of the clinic.
- B8 That in conjunction with the clinic, the resource of local farms - whether subsistence, commercial or research - should be used more during the course, with the current farm visits developed to include longer, more analytical projects or student attachments.
- B9 That pharmacology training (where possible through case studies) enables students to understand the market of drug retailing and biologicals (vaccines); and the epidemiological and economic effects of drugs and biologicals in the different animal production systems of Ethiopia.

C. Other recommendations about the structure of the curriculum:

- C1. That the overall number of theoretical teaching hours / credit hours be reduced to allow time for more practical and problem solving teaching, and more field visits.
- C2. That the primary product of the Faculty be a practical rural veterinarian, and that further specialisation be introduced through optional final year, or short post-graduate courses.
- C3. That these short courses could include options for greater specialisation on academic disciplines; research orientated studies; veterinary economics for those interested in project management; small animal surgery etc.
- C4. That ways to improve access of students and lecturers to current journals and other literature be investigated, possibly using the Internet, and possibly through an Information Technology link with ILRI in Addis Ababa.
- C5. That students should spend part of their vacations 'seeing practice' with working vets (private or otherwise) in order to increase their practical experience.
- C6. That lecturers be given funds (travel costs, per diems and allowances) to visit the field with the aim of refining their courses after discussion with a range of veterinarians (field and research).
- C7. That, If Ethiopia is thinking of an export market for its animal products after rinderpest has been eradicated, training be given on the implications of the residues of veterinary drugs in these products.

C8. That if the course is to be reduced in overall length (and geared towards producing an 'appropriate professional' as has been discussed in some fora on revision of veterinary services) the Faculty consider cutting its credit hours in half (so that each credit hour equals eight teaching hours), encouraging lecturers to focus their disciplines on the practically applicable content.

D. Recommendations for donors:

D1 In order to assist the Faculty of Veterinary Medicine of the University of Addis Ababa to revise and update its curriculum so that it can continue to produce veterinarians and animal health assistants with training appropriate to the changing animal health service needs of Ethiopia, donors are recommended to consider offering financial assistance to the Faculty for specific activities, for example:

- i funding for training of lecturers on participatory training, farming systems approaches, syllabus development and other appropriate continuing professional development topics;
- ii funding for field visits by lecturers to assist them in modifying their syllabuses in line with the needs of field vets;
- iii funding for internet access for lecturers and students as a cost effective way of accessing experience and research findings from around the world, including support for a close Information Technology link with ILRI in Addis Ababa;
- iv assistance in up-grading clinic facilities if the course is re-structured so as to make the clinic more central to the curriculum; and assistance in providing transport for study visits by students if there is a move towards farming systems analysis and practical, on farm, teaching.

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