RAPID

CHEMONICS INTERNATIONAL, INC.

REGIONAL ACTIVITY TO PROMOTE INTEGRATION THROUGH DIALOGUE AND POLICY IMPLEMENTATION

RAPID Task Order 1.9

Assessment of Selected Wildlife Training Colleges in SADC

(Final Report)

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iii. Acronyms

ADMADE	Administrative Management Design for Game Management Areas
BWTI	Botswana Wildlife Training Institute
CAWM	College of African Wildlife Management
CBNRM	Community Based Natural Resources Management
CRB	Community Resources Board
DNPW	Department of National Parks and Wildlife in Malawi
DWNP	Department of Wildlife and National Parks in Botswana
EEC	European Economic Community
EU	European Union
FANR	Food, Agriculture and Natural Resources Sector
FAO	Food and Agriculture Organisation
FMC	Financial Management Subcommittee
FINIDA	Finish Development Agency
GPA	Grade Points Average
HIV/AIDS	Human Immune Virus/ Acquired Immune Deficiency Syndrome
MCFW	Malawi College of Forestry and Wildlife
MoU	Memorandum of Understanding
NACTE	National Council for Technical Education
NGO	Non-governmental Organisation
NORAD	Norwegian development Co-operation
PARCS	Protected Areas Conservation Strategy
PPF	Peace Parks Foundation
RAPID	Regional Activity to Promote Integration Through Dialogue and Policy Implementation
RCSA	Regional Centre for Southern Africa
RCM	Resource Management Subcommittee
SADC	Southern African Development Community
SAWC	South African Wildlife College
TBNRM	Transborder Natural Resources Management
TEVET	Technical Entrepreneur and Vocational Education and Training Authority
TNA	Training Needs Assessment
TOR	Term of Reference
TREP	Tropical Resource Ecology at University of Zimbabwe
USAID	United States of America International Development Aid
VAG	Village Area Group
WCS	Wildlife Conservation Society
WMPT	Wildlife Management Training Programme
WWF	World Wildlife Fund for Nature
ZAWA	Zambia Wildlife Authority
ZCBNRMC	Zambian Community Based Natural Resources Management College

iv. Executive Summary

An assessment of selected wildlife training colleges in SADC was undertaken with the objectives of determining their capabilities and performance, in order to recommend to USAID-RCSA a suite of interventions that could be packaged in support of the training institutions.

Some of the critical issues that emerged from this assessment, include:

i) unevenness in accreditation systems adopted by the colleges;
ii) weaknesses in programme design and curriculum development that have affected the quality of qualifications;
iii) critically low levels of recurrent capital investments in some of the training institutions by national governments (*e.g.,* Malawi and Zambia);
iv) a general lack of strategic business plans that incorporate long-term mechanisms for ensuring sustainable viability;
v) lack of a regionally harmonised, and co-ordinated approach to wildlife training that is reflective of the ever changing natural resources environment and management needs;
vi) externally funded TNAs, whose recommendations have not been fully implemented by the wildlife training institutions.

In view of the foregoing observations, the following priorities need to be addressed in order to guarantee meaningful interventions that would support future investments in wildlife training in SADC:

High priority

(i) Support is required to institutionalise a SADC Wildlife Training Regulatory Authority within the SADC Directorate of Food, Agriculture and Natural Resources in order to streamline and harmonise the accreditation system, standards of TNAs, and ensure quality of wildlife training. The proposed institutional framework should include the:

- **SADC Council of Ministers**, which should approve regional wildlife training policies and quality standards;
- **SADC Directorate of Food, Agriculture and Natural Resources (FANR)** which should supervise the activities of the proposed Wildlife Training Regulatory Authority (WTRA) and certify quality standards and the accreditation system;
- **SADC Human Resources Development Sector** which should liase with the FANR in providing guidance to the WTRA in performing its functions;
- **Wildlife Training Regulatory Authority**, which should in liaison with Wildlife Training Colleges harmonise the system of course accreditation, set quality standards for wildlife training, set minimum qualifications for lecturers at each level of wildlife training and harmonise the system of evaluating lecturers and students;
- **Wildlife Training Boards** whose responsibilities would include reviewing and approving curricula and strategic and business plans;
- **Wildlife Colleges**, which should ensure that their training programmes respond to the clients' and regional needs and should develop strategic and business plans that will ensure the colleges' sustainability; and

- **Stakeholders**, *i.e.*, government agencies, the private sector, NGOs and local communities, who should provide input in the curricula development.

(ii) USAID-RCSA should organise workshops for representatives of wildlife training colleges. During these workshop key elements from all SADC policies and Protocols on natural resources management should be availed to the wildlife-training providers so that they are able to incorporate them in the colleges' curricula.

(iii) A pool of regional wildlife experts/managers should be identified, and supported to participate in setting methodology for carrying out training needs assessments, establishing minimum standards for each wildlife training programme and developing a regionally accepted accreditation system for wildlife training programmes.

(iv) We reiterate the previous TNA's recommendation for the rehabilitation of the Gorongosa Wildlife Training Institute for the lusophone countries. These countries have serious shortages of trained personnel in natural resources management. Donor support is urgently required for developing training facilities and curricula for these countries.

(v) USAID-RCSA should finance and facilitate the development of strategic and business plans for the BWTI, MCFW, and ZCBNRMC.

Other recommendations

(vi) The Botswana Wildlife Training Institute and Malawi College of Forestry and Wildlife need support to cater for infrastructure expansion e.g. classrooms, laboratory and museum space to allow for the planned increase in the number of trainees. Therefore, future donor support should give priority to the two colleges to enable them cope with an increase in national demand for trained middle level wildlife managers;

(vii) Wildlife colleges in the SADC should harmonise their accreditation systems. Reliance on standards set by the Technical and Vocational Training institutes does not reflect the quality that is expected in the wildlife management field.

(viii) Colleges such as BWTI, MCFW, and ZCBNRMC urgently need support towards upgrading the qualifications of lecturers in wildlife management.

(ix) Financial support should be provided to facilitate regular workshops that will enhance dialogue among wildlife training colleges and their clients, with a view of achieving consensus on harmonisation and standardisation of wildlife training in the region

(x) Any future financial support that may be offered to SAWC should be contingent on its ability to strengthening and broadening its modular, client-demanded short-term courses. This could be linked with development of a system of conferring credits and accumulating them for trainees to use in advancing their careers. Its current nine months certificate and diploma programmes offered by this college, do not demonstrate the rigour that is required for these qualifications. The US$8,000 charged for these programmes in nine months is particularly exorbitant, and will certainly be a deterrent to many prospective clients.

(xi) On the other hand future financial support to BWTI, MCFW, and CAWM should be aimed at strengthening certificate, or diploma courses in wildlife management

(xii) Support should be extended to facilitate the development of methodologies that incorporate an adaptive approach to TNAs, allowing for changes in ecosystems, and biodiversity conservation status to be accommodated in the curricula of wildlife training colleges.

(xiii) Support should be provided for non-academic areas of administration, project and business management, and skills related to aspects of wildlife management.

1. Introduction

The wildlife resources of the Southern African Development Community (SADC) are rich and diverse, occurring in a variety of habitats, ranging from lowland and Montane evergreen forests, through woodland savannas, wetlands, deserts, freshwater and marine systems to the botanically mega-diverse fynbos of southern South Africa. This wealth is recognised by the SADC as an important asset for the region's overall socio-economic development. In its Declaration and Treaty of 1992, Article 15(1g) SADC, endeavours to sustainably utilise its natural resources and protect the environment. Development of the tourism industry, which primarily depends on the aesthetic appeal of the region's diverse landscapes and their attendant wildlife, has the greatest potential to contribute to the socio-economic development of the region. Tourism world-wide is considered to be a booming industry, surpassing both the automobile and oil industries[1]. Realising this potential, SADC countries are working towards improving their capacities to tap into this booming industry, with a view of relieving some of the unemployment burdens, and stimulating the development of entrepreneurial skills and other associated industries related to tourism, thus generating even more employment opportunities. To achieve this SADC, needs qualified personnel at various levels, in its natural resources management sector.

Development of human resources is one of the strategies for achieving the SADC's objectives of regional economic integration. Within the SADC Wildlife Sector, attempts have been made to promote appropriate and effective training. For example, carrying out regional training needs assessments, and improving training facilities at some of the training institutions, such as the College of African Wildlife Management, Mweka, Tanzania for Certificate and Diploma in Wildlife Management and at the University of Zimbabwe for MSc. in Tropical Resource Ecology. Furthermore, scholarships have been offered to SADC nationals to undertake these courses. From 1997 to 2000, the European Union provided ECU8 million in support of the regional wildlife training programmes.

However, as the demand for trained manpower in the natural resources management field is ever-increasing, many SADC countries have opted to establish their own wildlife/natural resources training institutions, offering similar training programmes, such as Certificate and Diploma in wildlife management. These programmes have been developed without any regionally set quality standards, or accreditation system. Consequently, the training programmes being offered are not well known, nor widely accepted, thus, creating major constraints for graduates of these colleges to pursue university training at degree levels, as well as impeding opportunities for promotion in their work.

In view of these shortfalls, the SADC Directorate for Food, Agriculture, and Natural Resources needs mechanisms for co-ordinating and setting regional standards in wildlife training. In achieving this, the USAID/RCSA Natural Resources Management Program, under its Strategic Objective, Number 12 (SO #12), supports the ***Management of Shared Natural Resources through Increased Co-operation*** among the countries of Southern Africa. Under SO 12, and through Chemonics' RAPID Activity 1.9 a ***Broad-based Assessment of the SADC Wildlife Training Institutions*** has been commissioned. The objectives of the assessment were to:

(i) obtain a clearer picture of what type of training is being provided and by whom;

(ii) assess strengths and weaknesses of the individual training institutions; and

[1] Goodwin, H., Kent, I, Parker, K. and Walpole, M. (1998). Tourism, Conservation and Sustainable Development: Case Studies from Asia and Africa. IIED, London

(iii) recommend options for creating improved synergies between the wildlife training institutions, that would in turn avail USAID-RCSA the basis on which it would package a suite of interventions.

2. Background

Little if anything has been done to assess the capacity and capability of wildlife institutions, and identify areas that need synergies. More effort and resources have however been invested in carrying out ***Training Needs Assessments*** (TNA). TNA is a process, which identifies performance gaps and focuses training on specific needs of employees of graduates of the wildlife training colleges.

Numerous recommendations have been given by TNAs carried out in the past, but with no follow-up to find out if wildlife colleges are incorporating key recommendations in their curricula. For instance, outlined below are some of the recommendations that have been made in past with respect to the wildlife training that is required in southern Africa:

TNA # 1: 1983-1986, financed by FAO:

a) focussed on training needs of governments' wildlife agencies;

b) placed emphasis on numerical needs for staff at all levels of the government wildlife agencies;

c) concluded that existing training facilities were inadequate to provide for the upgrading and placement of existing staff and the required expansion of establishments; and

d) recommended that:

- Bachelors courses relevant for wildlife managers be established;
- the college of African Wildlife Management, at Mweka be strengthened and expanded; and that
- an institute offering certificate and diploma courses be established for the Portuguese speaking countries.

TNA # 2: 1987, funded by the European Economic Commission (EEC):

a) focussed on government wildlife agencies of the nine countries that comprised SADC at the time, namely Angola, Botswana, Lesotho, Malawi, Mozambique, Namibia, Swaziland, Zambia and Zimbabwe;

b) availed the need among the member states for financial assistance for training middle and upper professionals, with emphasis on the warden grade;

c) determined the need for a Bachelor's programme in wildlife management;

d) recommended a 5 year regional programme of assistance under the training co-ordinator for the SADC, which would include:

- establishing a training promotion and co-ordination unit;
- establishment of a training mobile unit;

- provision of assistance to existing national training programmes; and
- implementation of a scholarship programme for middle and senior level trainees to access training opportunities outside their home countries.

TNA #3: 1990, funded by EEC:

a) again focussed on the government wildlife agencies;

b) estimated the number required to carry out effective wildlife management in the region, and concluded that training capacity failed to meet the requirement by a wide margin at all levels both for staff in place and for the increment required; and

c) recommended that the following actions be instituted:

- support to wildlife management training be focused on the Masters course in Tropical Resource Ecology (TREP) at the University of Zimbabwe, and middle level courses in Certificate and Diploma in Wildlife management at the African College of Wildlife Management, Mweka, Tanzania;
- support be targeted towards infrastructure development in the form of buildings, equipment, vehicles, staff development and scholarships for SADC nationals' to facilitate their admission to TREP and Mweka;
- provision of a SADC Wildlife Training Co-ordinator to be based within the SADC Wildlife Technical Coordination Unit, Malawi;
- provision of regional workshops and seminars for middle level and senior wildlife management personnel; and
- provision of outreach programmes related to wildlife management in the region.

TNA # 4: 1993 to 1996, the Biodiversity Support Programme, a consortium comprising the World Wildlife Fund (USA), African Wildlife Foundation and Wildlife Conservation Society funded and managed a project known as the ***Protected Area Conservation Strategy*** (**PARCS**). This project was concerned with training needs and opportunities among government protected area managers in east, central and southern Africa. However of the sixteen countries covered in the assessment only Malawi and Tanzania belonged to SADC. The major recommendations emanating from the PARCS Training Needs Assessment were that:

a) training be viewed as an integral, planned component of wildlife department's strategies, based on clear plans of activities to be carried out by each staff member, with associated job descriptions.

b) each wildlife agency should establish a training unit responsible for co-ordinating short, and long-term training, including on-job training;

c) training must be planned and implemented to equip each staff member to match his/her job description at each level and for each specialisation;

d) modular in-service courses were favoured over long-term formal training programmes. The PARCS project produced two manuals, one a hands-on manual (titled: "***What's Your Role***") on procedures for setting and running an in-service training programme. Another manual contained course materials for in-service training on ***Community Conservation for Rangers***, intended for use at Pasiansi Wildlife Training Centre in Tanzania. Neither of the in-service manuals, produced by the PARCS project has been adopted and used by SADC wildlife agencies, or training institutions.

TNA # 5: 1997, under the EU funded SADC Wildlife Training Project. The main objective of this project was to improve training facilities at the College of African Wildlife Management, Mweka in Tanzania for medium level officers and at the University of Zimbabwe, TREP for upper level personnel in wildlife and protected areas management. It also endeavoured to harmonize training efforts within the region, and rendered training more specific and beneficial to the needs of the SADC member states by:

(i) determining needs for the training of wildlife personnel at Diploma and MSc. levels;

(ii) modifying, expanding or creating structures or procedures which would allow derivation of maximum benefits from the investment in the training of staff;

(iii) improving performance of middle level technical managers and through this the work output of low level staff, and

(iv) promoting the provision of appropriate university training within the region for a selected number of upper level managers.

The TNA commissioned under this project included besides government wildlife agencies, non-governmental organisations (NGOs), the private sector, other government departments, local authorities and local communities, thus including a wide variety of stakeholders with interest in wildlife. The rationale for including a wide range of stakeholders in the TNA was in recognition of an emerging desire in some countries within the SADC to lease some aspects of wildlife management by the government to local authorities, the communities, the private sector and NGOs. Detailed TNAs were undertaken in seven countries, namely Angola, Botswana, Malawi, Mozambique, Tanzania, Zambia and Zimbabwe. Results of this TNA show that:

a) numerically, with the exception of the lusophone countries (Angola and Mozambique), the principal training requirements for government wildlife agencies relate to replacement of existing staff losses through retirements, deaths and other forms of attrition;

b) numerically, there is a much greater need for training in NGOs associated with wildlife management, particularly for those associated with Community Based Natural Resources Management (CBNRM) and the wildlife based tourism industry;

c) in terms of knowledge, skills and attitude upgrading for government wildlife agencies, the following priorities were identified:

- modular courses in administration and project/business management, management of contracts, leases and concessions and ecological monitoring;
- all aspects of CBNRM;
- field skills and micro-administration by junior staff in law enforcement, visitor services, problem animal control, CBNRM and ecological monitoring;
- technical services in procurement, maintenance of equipment, houses, roads, vehicles, water supply, etc.

d) the priority needs for the private sector were identified as follows:
   - awareness of environmental issues, standards and practices for technical services, wildlife management and commercial operations carried out in environmentally sensitive situations;
   - wildlife management procedures for concessions (*e.g*., game ranching, conservancies);
   - all aspects of wildlife based tourism, including safari hunting, particularly at middle and senior management levels.

e) many of the existing training service providers and training products, particularly for the long-term courses such as those offered at Mweka and TREP, University of Zimbabwe fail to provide training in many skills and attitudes required by workers in the wildlife sector. Graduates are particularly weak in the non-academic areas of administration, project and business management, technical services, and CBNRM;

f) modular customer-tailored courses and other training products, such as workshops were recommended as a priority requirement to supplement, or replace the often inappropriate training provided by long-term courses. Thus on-job training programmes were favoured. However, a prerequisite for this modular training strategy is the adoption of a system, whereby short courses and other informal training confer credits, which in turn are related to career progression for the individual workers;

g) upgrading training opportunities in CBNRM at all levels was one of the recommended priorities. This included the need for developing a regional centre for short and medium courses, as well as workshops for orientation at national, district and community levels;

h) pilot programmes for training citizens in wildlife related tourism (*e.g*., guides, hunters and camp managers) should be initiated;

i) steps should be taken to provide bachelor's degree training that is more relevant to wildlife management, either through elective modules in the existing degree courses, or through establishment of a degree course in wildlife management at a regional centre; and that

j) high priority should be given to all aspects of wildlife training in Angola and Mozambique, particularly the rehabilitation of the Gorongosa Wildlife Training Institute was considered as one of the priorities.

An overview of the TNAs done so far clearly shows that for over two decades, a lot of effort has been invested in doing them, but what has been lacking is the assessment of wildlife training institutions' capacity, or responsiveness to accommodate the recommended actions. This assignment, therefore, is the first to evaluate the capacity of the wildlife-training providers, with a view of recommending mechanisms for harmonising training efforts and render training more specific and beneficial to the needs of the SADC member states.

3. Comments on the Terms of References (TORs)

The overall goal of the assignment was to develop a sub-strategy for harmonizing wildlife training in Southern Africa. Specific tasks (Annex 1), included:

i. Assessing the capacity and capability of individual wildlife training institutions to deliver programs;

ii. Examining the institutional and financial sustainability of training institutions;

iii. Carrying out training needs analysis, i.e., by reviewing TNA in countries where this was previously done and conducting TNA in South Africa and other countries where this was not done

iv. Identifying areas of potential synergies between training institutions; and

v. Exploring possibilities of introducing a regional accreditation process.

All these TORs have been accomplished, except carrying out the envisaged TNA, which could not be accomplished within the limited time of twenty days. We believe this could be undertaken as a separate task. But an effort has been made to find out if recommendations of the previous TNAs have been incorporated in the wildlife training curricula of the surveyed wildlife training institutions.

4. Methodology and Approach to Accomplishing the TORs

A team, comprising a Development Specialist, Dr. Simon Munthali and a Team Leader, Mr. Willas Makombe visited five wildlife training colleges. These included the Botswana Wildlife Training Institute (BWTI), in Botswana, the Southern African Wildlife College (SAWC) in South Africa, the Malawi College of Forestry and Wildlife (MCFW) in Malawi, the Community Based Natural Resources College (ZCBNRMC) in Zambia and the College of African Wildlife Management (CAWM) in Tanzania. The team also had meetings with a representative of the USAID-RCSA, RAPID Activity 1.9 officials, the SADC Wildlife Sector Technical Co-ordination Unit in Malawi, and other relevant institutions, such as the Department of Wildlife Management and National Parks in Botswana and the Department of Forestry in Malawi. The former finances the BWTI, while the later co-finances the MCFW.

A structured questionnaire (Annex 2) was designed and used in interviewing senior and key personnel at each of the wildlife training institution selected and visited. To verify the responses to the questionnaire, more than one individual was interviewed at each college. Visual inspection was also undertaken to evaluate the college's general ambience, quality of facilities, equipment, and buildings.

4.1. ***Capacity*** of each college was evaluated in terms of the availability of:

- adequate infrastructure, and equipment concomitant with the training programmes being offered;
- records on trainers, and trainees; and
- student – lecturer ratio.

4.2. ***Capability*** was assessed on the basis of how the:

- training programmes and curriculum are designed and developed;
- programme and curriculum have been revised in the past 5 years
- teaching materials are designed, procured and updated;
- feedback mechanisms are implemented on the programme, course relevance and effectiveness;

- availability of monitoring and evaluation system for the training programmes and courses; and
- professional qualifications of the teaching staff, including availability of a capacity building programme for staff.

4.3 ***Organisation and governance*** focused on the college's:

- legal status;
- vision and mission;
- availability of regulations for staff and students;
- policy guidelines for staff recruitment, staff appeal process, occupational health and safety, financial management, career development for staff, and staff performance management.

4.4 ***Sustainability*** of the training institutions was assessed on the basis of the:

- availability of sufficient demand, *i.e.*, popularity and diversity of the training programmes offered;
- number of clients sending students to the college;
- degree of dependence on government/and or donors for financial support;
- availability of a business plan;
- ability to monitor overhead costs to keep them low (financial regulations);
- ability to downsize, or eliminate unfunded services;
- availability of mechanisms that capture adequate revenues for the operation of the college.

In addition to the stipulated TORs:

4.5 the colleges' curricula were reviewed to compare their strengths and identify areas that require synergies;

4.6 the previous TNAs were reviewed (see section 2 above) against the contents of each college's curriculum to find out if key recommendations have been included in the colleges' training programmes;

4.7 the colleges were also assessed on their levels of response to the prominent SADC initiatives, such as the Trans-boundary Natural Resources Management (TBNRM), which is a product of the SADC Protocols on: Wildlife Management and Law Enforcement, Shared Water Resource and Tourism. The TBNRM concept focuses on safeguarding ecosystems and biodiversity patterns bisected by national borders. The aim is to integrate ecosystem conservation and socio-economic development. TBNRM programmes are being implemented in Botswana, Mozambique, Namibia, South Africa, Swaziland, Zambia and Zimbabwe, and USAID-RCSA provide support to most of these programmes.

4.8 Furthermore, it was expected that a reflective wildlife training institution could spur and teach students the business approaches to wildlife and protected areas management. This is particularly important now that the conventional approaches to wildlife management in southern Africa are being constrained by ***dwindling financial resources.*** Wildlife agencies have to compete with pressing demands from other sectors, such as education,

housing, health (including the accelerating transmission of HIV/AIDS[2]), defence, and the demands of structural adjustment programs imposed by the International Monetary Fund and World Bank.

5. Synopsis on each college's training programmes

5.1 Botswana Wildlife Training Institute

The Botswana Wildlife Training Institute, situated in Maun Town, was initially founded in 1980. By the end of 2001, the college expected to have training facilities that would accommodate 210 trainees, but this did not happen because construction of the college's supportive infrastructure has not yet been completed.

The college's vision is to become the centre of excellency in the provision of training programmes to low and middle level natural resource managers and in provision of technical consultancy, research and information services in wildlife conservation, tourism and CBNRM in Botswana and SADC".

The training curriculum consists of competence-based programmes that provides different levels of qualifications and a range of transferable skills including knowledge and understanding of wildlife management, ecotourism and business management.

The training methodology is based on modular and flexible training curriculum, which focuses on practical training. This college has a wide range of training programmes, both existing and planned.

Training programmes currently offered are:

(i) 2 years Certificate in Wildlife Management and Conservation. Trainees include new recruits and serving wildlife scouts, with at least 4 years field experience. This course accommodates 25 trainees;

(ii) 10 week Induction and Basic Training programme for the Department of Wildlife and National Parks' new recruits;

(iii) A 19 week Professional Tour Guide Certificate programme for secondary school leavers wanting to be professional tour guides;

(iv) A ten days Trophy Identification course for graduates officers of the Department of Wildlife and National Parks (DWNP);

(v) A ten days Problem Animal Control programme for wildlife rangers and officers of the DWNP.

Besides the above courses, the college plans to introduce the following:

(i) 2 years Diploma course in wildlife and conservation. This course aims to equip trainees with skills and knowledge to completely handle predictable and non-routine demographic, political and socio-economic situations to enhance sustainable wildlife

[2] Seventy percent of the people infected with HIV live in sub-Saharan Africa, with a prevalence of 28.2% in southern Africa (UNAIDS, 2000).

management practices. The target group for this course, are holders of certificate in wildlife management, wildlife managers and holders of Cambridge Overseas Certificate or its equivalent. This course will accommodate 25-30 students.

(ii) 3 years Diploma in Tourism Business Management, including 6 months of attachment. This course aims at equipping trainees with skills and knowledge that would allow them to actively engage in, and benefit from the tourism industry. The targets are the prospective entrepreneurs wishing to make career in ecotourism.

These programmes will take off once the infrastructure development programme has been accomplished, probably by end of 2002. The curricula for the two diploma programmes are still being developed.

The college has close relationship/linkage with the University of Botswana, with whom it intends to have a memorandum of understanding, and have its diploma programmes accredited.

Key strengths of the BWTI – are its training programmes in professional tour guiding and problem animal control. SADC lacks indigenous professional tour guides, and therefore the initiative taken by the BWTI should be fully supported, with possibility of opening it to other SADC nationals. In addition linkage to University of Botswana is a key strength as it facilitates transition from college to university.

College sponsorship - the Government of Botswana meets the cost of development and operations of the college, including payment of staff salaries. Other agencies that have contributed to the development of the college include FAO, which initially assisted in curriculum development and USAID, under its Natural Resources Management Programme assisted with revision of the curriculum, and provided technical assistance to the teaching staff, including financing the construction of some staff houses.

5.2 Southern African Wildlife College

The Southern African Wildlife College (SAWC) is situated adjacent to the World famous Kruger National Park, in Hoedspruit, about 150km from Nelspruit, South Africa. The college became operational in 1997, initially offering short courses. The certificate course commenced in 1998 and diploma course in 1999.

The college's vision is to become a regionally recognised centre for excellence in conservation education and training. Its mission is to provide natural heritage managers, and particularly protected areas' managers from Africa, with the motivation and relevant skills to manage, in co-operation with stakeholders, their areas and associated wildlife populations sustainably and in a culturally accepted manner

The training curriculum has a practical orientation, transferring skills to trainee park managers and employees of the private sector within SADC and non-SADC countries. The curriculum is modular based, lasting 9 months for Diploma and certificate in natural resources management, while the duration of short courses depends on the needs, and usually lasts between one and four weeks.

The training methodology is based on modular and flexible training curriculum, which focuses on practical training. It is expected that diploma graduates integrate knowledge and skills into the

operations of a conservation area. Furthermore, graduates of this college are expected to act as supervisors of subordinates at various level of park management. The certificate course is designed for intermediate level officers, and is skills and hands-on oriented.

The SAWC has a memorandum of understanding with university of Natal, and is closely associated with the University of Pretoria. The college also wishes to have more associations with other wildlife training colleges in SADC. So far, lecturers from BWTI have visited the SAWC and the college's staff members have participated in curriculum review for the College of African Wildlife Management, Mweka in Tanzania.

Key strengths of the SAWC – is provision of hands-on skills to protected areas managers, including offering courses in business-orientated approaches to protected areas management. The later is crucial for SADC where most protected areas under government financial support are struggling to meet their operational costs.

College sponsorship - The college was built with the financial assistance of the German Bank, KfW, while WWF and Peace Parks Foundation (PPF) support some students with bursaries and scholarships. Other students are sponsored by their own organisations. In recognition of the need to make the college self-sustaining, the college has established a Trust Fund, and it is operating as a business entity, by charging trainees, fees on short courses. Furthermore, some of the donor funds have been used as seed money to establish a Trust Fund.

5.3 Malawi College of Forestry and Wildlife

The Malawi's College of Forestry and Wildlife is built in a beautiful natural environment, situated in Dedza District, about 100km from the capital city of Lilongwe. The wildlife component of the college was initiated in 1997. Originally wildlife trainees were trained at the Natural Resources College in Lilongwe. The current location of the college, a Forestry Reserve is considered to be more appropriate for the programme than Lilongwe.

The college's mission is to provide high quality training to serve the needs of the communities, groups, individuals, and organisation in the effective and profitable management of the forests, and wildlife resources

The training curriculum is for a two years certificate in wildlife management. Entrance qualifications are 0'levels, with credits in science subjects and English for those being recruited outside the Department of National Parks and Wildlife (DNPW). For serving staff, junior certificate, and 4 years experience are requisites. The DNPW is currently the sole client of the college's graduates in wildlife management.

The MCFW has linkages with the University of Malawi, Bunda College of Agriculture, which has started offering Bachelors' degree and MSc in Forestry science and BSc in wildlife management.

Key strengths of the Malawi's wildlife training programme – is offering hands-on skills in law enforcement and game-capture techniques. The college also has high potential to offer short-term courses in beekeeping, small game farming, and wildlife/environmental education. The clients for the short-term courses include the public sector, private sector, NGOs and local communities.

College sponsorship - the Government of Malawi meets the cost of the wildlife training programme, including payment of staff salaries, student's accommodation and other associated costs. The Forestry component of the college is also financed by the Malawi government, but donors, such as, FINIDA, and European Union have been supporting the forestry programme, which offers certificate and diploma in Forestry. While the government is fully committed to finance the wildlife programme, the level of funding given by the Ministry of Tourism, under which the DNPW operates is shockingly low. There are incidences when the college has received as low as MK5,000 (*i.e.*, < US$100) per month. On the other hand, the Ministry of Natural Resources, under which the Forestry Department operates, provides adequate funding for the Forestry-training programme, and in a way subsidising the Wildlife-training component of the college.

5.4 Zambia College of Community Based Natural Resources Management

The Zambian Community Based Natural Resources Management College is situated in the Luangwa Valley, and linked to the ADMADE programme. The college was established in 1999. Its main focus is on training employees of the Community Resource Boards (CRB) in order for them to sustain wildlife management and secure improvements in household livelihoods. Members of the CRBs are elected from the Village Area Groups (VAGs). Each CRB has an elected secretary and chairperson. The CRBs are served by the Financial Management Subcommittee (FMC), Development Subcommittee (DC) and Resource Management Subcommittee (RMC).

The training curriculum combines theoretical instruction with practical orientation aimed at:

(a) imparting leadership skills to community leaders in order for them to organise others in the management of natural resources on communal lands, in partnership with the private sector and government;

(b) instilling accountability and transparency in effectively using resource-generated funds and distributing to household groups for use in rural development; and

(c) developing community organisations, through which capacity building is being imparted to communities in order for them to overcome poverty and conserve their natural resources.

Training programmes targets four levels of CRB's employees:

(i) Community co-ordinator: this is a 6 months course. Entry qualification is grade 12. This course provides a year-round service by helping facilitate and administer key CRB functions. The course equips the co-ordinators with skills to monitor the performance of village scouts and supports their administrative requirements, co-ordinates food security programmes, promotes and supports land use planning at the Village Area Group (VAG) level and oversees community trainers;

(ii) Community bookkeeper: this is a two months course. Grade 12 is the minimum entry qualification. Trained bookkeepers maintain financial records for the CRBs, provide monthly statements to CRBs and prepare quarterly reports on all transactions. They are also responsible for safe-keeping of CRB's cheque books and conform to all fiscal regulations and procedures laid down by Zambian Wildlife Authority (ZAWA), and maintain stores of food rations, food security supplies and other mobile assets.

(iii) Village scout: this is a 4-6 months course, with a minimum entry qualification of grade 7. Trained village scouts provide year-round protection and monitoring of wildlife resources

within the prescribed boundary of the CRB. A resident ZAWA scout, who takes advantage of local expertise and knowledge in bush-craft and tracking skills, does supervision of law enforcement activities. The village scout initiative provides a very cost-effective way of enhancing wildlife protection. Cost of supporting a village scout is about 20% of the cost of a ZAWA regular scout. The village scouts have been particularly effective in data collection, patrolling, monitoring licensed hunters and controlling crop damage by wildlife.

(iv) Community livelihood trainers: the minimum entry qualification is grade 7. Duration of the course varies dependent on livelihood skills being addressed by the course. Local residents are selected and trained as trainers of others in useful livelihood skills in food production, or income generation. Their work is seasonal and their salaries are commensurate with work, or in a form of bonus. Other courses offered by the college include:

- Community Based Natural Resources Management;
- Leather craft and tanning;
- Short courses on basic mechanics and vehicle maintenance;
- Agro-forestry and beekeeping;
- Community health; and
- Community development.

The adopted teaching methodology includes demonstrations, implementation of individual projects and group assignments. Enrolment of trainees is done once a year, taking up to 60 recruits for the village scouts' course, and between 10 and 20 for other courses.

The aim of the college's training programmes is increase the capacity of communities living outside the wildlife protected areas to meet the basic needs of food security, health, education and self employment through nature conservation and sustainable use of wildlife.

The college's mission is to equip the community co-ordinators with knowledge and skills to advise, support and co-ordinate activities approved by Community Resource Boards and their lower level leadership structures as a basis for reducing threats to wildlife and other natural resources through improved household livelihoods and community-led conservation.

Future plans - the college's future plan is to establish a close linkage with the University of Free State in South Africa, where its lecturers could be registered for higher qualification (*e.g.*, MSc.), as distant learners. The Free State University could provide course work, while field research could be carried out within the ADMADE programme, in the Luangwa Valley, Zambia. The college's highly qualified CBNRM expert, and advisor would supervise the postgraduate students. It is also the wish of ZAWA to have the college introduce courses in Tour Guiding and Trophy fashioning. The college feels quite confident that it can extend its courses to members of the SADC countries, and help them establish CBNRM colleges similar to the Zambian one.

The college's key strengths - The adaptive approach to programme and course design

5.5 College of African Wildlife Management

The College of African Wildlife Management is situated fourteen kilometres from Moshi Town, and is set in an appropriate environment for wildlife training. The college was established in 1963 as a pioneer institution for training African Wildlife Managers, and since its inception has trained 2,500 students, drawn from SADC countries and beyond.

The college's curricula are designed to produce professional, skilled and knowledgeable wildlife managers. The programmes being offered include:

(i) One year Certificate course
(ii) Two years Diploma Course
(iii) One year Advanced Diploma Course
(iv) One year Postgraduate Diploma Course

The qualification for the certificate course is O' levels. For the Diploma Course, a certificate in Wildlife Management is required. For the Advanced Diploma, it is a Diploma in Wildlife Management, while the Post-graduate Diploma accommodates students with university degrees, who wish to pursue their career in wildlife management. Besides the long term courses the college offers short-term modular courses that are demand-driven. These courses last between two to twelve weeks and are aimed at equipping trainers with practical skills in wildlife management.

The college's vision is to be a centre of excellency for providing professional and technical training, research and consultancy services to meet the African challenges in the field of wildlife management, biodiversity conservation and derivation of maximum benefit from conservation. The mission is to provide to provide high standards of relevant professional and technical training to meet the needs of African wildlife agencies with qualified and competent wildlife managers.

The CAWM has an enrolment capacity of 200 students per year. However, in the past seven years, the highest number enrolled has not exceeded 164, with the lowest being 125 in the 2001/2002 academic year. The decline in the student enrolment is associated with the fee structure, which at present is US$3125 per year for Tanzania students and US$ 6000 for foreign students.

College Sponsorship - The CAWM has been developed with financial assistance provided by many agencies, such as the Government of Tanzania, USAID, Frankfurt Zoological Society, African Leadership Foundation, Rocherfeller Brothers Fund, Ford Foundation, Federal Republic of Germany, the British Government, NORAD and the European Union.

To increase its financial support for students, the college intends to establish a scholarship fund, supposedly with donor assistance, and its own generated revenues, which would enable the college to enrol students to a maximum of 220 per annum.

College's key strengths - Mweka is strong in its academic courses in wildlife management, which are more inclined to theoretical rather than practical orientation.

6. Capacity of the assessed Wildlife Training Institutions

6.1 Infrastructure

(a) Botswana Wildlife Training Institute (BWTI)

The existing infrastructure, such as, classrooms, administration block, dinning room, computer laboratory, small library and other basic infrastructure, caters for their current training demands. To cope with their future plans of introducing two diploma programmes, the college has embarked on a massive construction project funded by the government. Under construction are 16 staff houses, three dormitories, dinning hall and kitchen, large classrooms, computer laboratory, staff offices, sports facility, laboratories, library and rehabilitation of old structures, including a swimming pool. Once these facilities have been successfully constructed, the college may cope with the increased programmes. However, the quality of the buildings being built seems poor, probably due to cheap materials that are being used. The government of Botswana seems fully committed to have this college developed, and it provides the required funds for this purpose.

(b) Southern African Wildlife College

The college has excellent infrastructure, such as modern classrooms, lecture theatre, computers, furniture and laboratory accessories, which caters for the needs of the trainees and trainers.

(c) Malawi College of Forestry and Wildlife

The college's supportive infrastructure - classrooms, library, administration block, dinning room, computer laboratory, students' dormitory, staff houses and others are fairly adequate for the needs of the forestry training programme, but limited for the wildlife training component of the college. With a carrying capacity of 90 students, of whom 72 are undergoing training in forestry, the wildlife component can only accommodate a maximum of 18 students. It is the wish of the wildlife trainers to have some of the old and unused buildings rehabilitated for use by the wildlife trainees. But with the meagre funds received from the Ministry of Tourism this may not be done in the near future. The Ministry of Tourism was supposed to build three houses for staff but only managed to build two. As a result of this negligence, one lecturer in the wildlife management programme is living in the nearby village and commutes to the college.

(d) Zambia Community Based Natural Resources College

The college's infrastructure, particularly students' hostels require rehabilitation and with the proposed increased intake, there is need for an additional hostel for postgraduate students, including furniture. Accessibility to the college is very difficult due to poor roads and bridges. However, the college has adequate computers and library.

(e) College of African Wildlife Management

The CAWM has improved infrastructure, which include modern training facilities, a lecture theatre, staff offices, computer laboratory, 11staff houses, two new students' hostels, library, kitchen, laundry room, dispensary, an administrative block and a renovated museum. The development of these facilities has been funded by the European Union, under the SADC-EU wildlife-training programme (SADC-WMTP/EU) and NORAD.

There are also plans to refurbish ten staff houses, and convert them into hostels for short-term courses and seminars. Accessibility to the college has been tremendously improved by tarring the road from Moshi to the college.

Recommendations

i. The Malawi College of Forestry and Wildlife needs more staff houses and an expansion of the classrooms, laboratory and museum space to allow for the planned increase in the number of trainees. If there is any donor support, Malawi should be given priority so that the college can cope with an increase in national demand for trained middle level wildlife managers;

ii. Similarly, the Zambian College of Community Based Natural Resources Management needs support for expanding accommodation to cater for the postgraduate trainees. Furthermore accessibility to the college needs attention, more especially if the college will in the future cater for the SADC training needs in CBNRM.

6.2 Equipment

(a) Botswana Wildlife Training Institute

The BWTI has some basic equipment, including a few computers for use by staff and students. Weighed against the college's curriculum, which is heavily academic, the available equipment is far below the requirements. Similarly, the college lacks laboratory equipment, and specimens for the museum. The library is also inadequate. It needs expansion in terms of literature for the expected increase in in-take of students in various training programmes, including two diploma courses in wildlife management and tourism business management.

(b) Southern African Wildlife College

Has adequate and modern equipment concomitant with the programmes and courses being offered. The equipment includes computers, audio-visual aids, furniture, and laboratory accessories. The college, however, has inadequate transport for students, especially for use during field practicals.

(c) Malawi College of Forestry and Wildlife

The forestry component of the college has adequate equipment, including several new computers donated by the European Union. Wildlife trainees and trainers also have accesses to the equipment. Although the Ministry of Tourism promised to buy a vehicle for the college, it has so far not met its pledge, thus creating a very high level of dependence by the wildlife component on the forestry-training programme. This has potential to cause disharmony among staff and students of the two training programmes, and limits involvement of wildlife trainees in carrying out field practicals.

(d) Zambia Community Based Natural Resources College

The college currently seems to have adequate computers, including *GIS*, and visual aids. However, there is need to replace the furniture, and if in the near future the college will start to accommodate postgraduate students then extra computers may be required to avoid clouding and scrambling for computers.

(e) College of African Wildlife Management, Mweka, Tanzania

The equipment available at this college, such as computers, furniture and audio-visual aids are modern and sufficient for the training programmes being offered. Donors have been instrumental in equipping the college in all its aspects.

Recommendation

i. The Malawi College of Forestry and Wildlife and the Botswana Wildlife Training Institute need more financial support to acquire the necessary equipment for their training programmes. The government of Botswana seems prepared to equip the BWTI, but the Malawi government seems incapable of even supporting the college in its operational costs. The government of Malawi should take more interest in providing adequate training to its prospective wildlife managers by procuring the necessary equipment for the wildlife component of the MCFW.

6.3 Records of trainers and trainees

All colleges have relevant records of trainers and trainees going as far back as when the colleges were established.

6.4 Student-lecturer ratio

The colleges' student-lecturer ratios are shown in the table below.

	BWTI	SAWC	MCFW	ZCBNRMC	CAWM
Number of student per lecturer	2	10	4	8	3

All colleges are adequately staffed. In the case of Botswana and Malawi, the lecturers are government employees, seconded to the training colleges. For the Zambian College of CBNRM, half (4) of the lecturers are employees of the Wildlife Conservation Society (a USA based NGO), while others are employees of the government of Zambia. The staff of the College of African Wildlife Management, Tanzania are employees of the college. While the SAWC has a limited number of permanent teaching staff, but relies heavily on out-sourcing qualified staff for short-term input.

7. Capability of the wildlife training institutions

7.1 Programme and curriculum design and development

(a) BWTI

Programme, curriculum design and development are done in a participatory manner, involving various stakeholders, such as the Departments of Wildlife and National Parks, Department of Tourism, University of Botswana, Botswana Training Authority, private sector operators, and Home Affairs. Thus ensuring that the final product evolves through an elaborate consultation process. The training programmes offered at this college are government driven, dependent on personnel vacancies in the Department of Wildlife and National Parks and Department of

Tourism. Recognising that tourism is a rapidly growing industry in Botswana and world-wide, the government of Botswana has embarked on offering scholarships to new school leavers, who are being trained as Professional Tour Guides at the BWTI. It is expected that graduates of this course will be employed in the tourism industry.

The college has been responsive to the changing needs, and has since its inception in 1980, revised its curriculum twice. The first revision was for the certificate programme and the most recent initiate to accommodate two diploma programmes, one in ***Wildlife Management and Conservation,*** and another in ***Tourism Business Management***.

The University of Botswana accredits the college's training programmes, while the Director of Wildlife and National Parks certifies them.

(b) SAWC

Programme, curriculum design and development are done based on training needs assessment, carried out by the college, and are demand driven. Thus the clients (both public and the private sector) play a major role in the design of the training curricula for the college. Since the inception of the college in 1997, the curriculum has been revised once. The Tourism Hospitality and Sport Education Training Authority accredits the training programmes. Besides this, the college has a Training Advisory Committee, which oversees the college's programmes and curriculum to ensure quality assurance.

(c) MCFW

Programme and curriculum design and development are done in a participatory manner, involving various stakeholders, such as the Departments of Forestry, Fisheries, Environmental Affairs, Judiciary, University, NGOs' representatives, private sector and local community representatives. The current curriculum was developed in the year 2000, and is now due for revision. Accreditation of the Wildlife Training Programme is done by the Technical, Entrepreneur, Vocational Educational and Training Authority (TEVET). The University of Malawi, Bunda College, and the DNPW are also involved in the accreditation process.

(d) ZCBNRMC

The college has a very flexible approach to programme, curriculum design and development, which depends on situations and needs appropriate with the CBNRM activities being undertaken in the Game Management Areas of the ADMADE programme. The programmes and courses are demand-driven by the CRBs, and sometimes, the parent agency – ZAWA. The clients are also involved in carrying out Training Needs Assessment. Therefore, the college focuses on issues that are relevant to the CBNRM programmes being implemented in the ADMADE programme. The Technical Education and Vocation Training, under the Ministry of Education accredits the college's programmes.

(e) CAWM

The programme design and development is done in participatory manner, and passes through four steps, namely: (i) module design, (ii) external module evaluation, (iii) client surveys and market research, and (iv) curriculum and academic audit.

The college has been implementing its own accreditation of the training programmes, but it has now made an application to the National Council for Technical Education (NACTE), for accreditation and registration of its training programmes. The advantage of joining this accreditation system includes conformity to a national system, which can in turn be harmonised with any regional accreditation system that may evolve in future. Mweka has close links with the University of Bradford, Manchester Metropolitan University, and Sokoine University of Agriculture. The college intends to establish a joint MSc programme in Wildlife Management with the Manchester Metropolitan University, and has since 2001 begun to offer a BSc in Wildlife Management in collaboration with Sokoine University of Agriculture, faculty of Forestry and Nature Conservation. The Memorandum of Understanding (MoU) between these two institutions also focuses on collaborative initiatives in curriculum review and development, research and organisation of joint professional workshops, symposia and provision of consultancy services. Besides these, negotiations are underway to have a MoU with the Botswana Wildlife Training Institute so that the two colleges can share expertise in developing their training programmes.

Recommendations

i. Wildlife colleges in the SADC should have a harmonised accreditation system. Otherwise reliance on standards set by the Technical and Vocational Training institutes may not reflect the quality that is expected in the wildlife management field.

ii. A pool of regional wildlife experts/managers should be identified, and encouraged to participate in setting methodology for carrying out training needs assessments, establishing minimum standards for each wildlife training programme and accreditation of such wildlife training programmes. The same experts could inspect and monitor the wildlife colleges to ensure compliance with the standards.

7.2 Design, procurement and updating of teaching materials

For all the colleges surveyed, teaching materials are designed in accordance with the courses being offered. Procurement of these materials is however either sponsored by the government, or donors. In the case of BWTI and MCFW, their requirements are submitted to the parent departments of wildlife, which in turn procure the required materials. This process creates delays, and in many instances, the parent departments, particularly in Malawi does not have funds to buy such materials. Both the BWTI and MCFW need extra teaching materials, such as laboratory and museum specimen. The other colleges are being heavily subsidised by donors, and have adequate teaching materials. However, as the demand for wildlife courses changes with time, each college needs to find means of updating the teaching materials, and should meet the costs of procuring them without being over-dependent on donor support. This should be considered as part of the process of making each training institution self-financing.

Recommendation

i. The Malawi College of Forestry and Wildlife and Botswana Wildlife Training Institute should find means of improving their teaching materials. For Botswana this may be done in a fairly short-term, because the government is fully committed to financially support the college. But for Malawi, it is unlikely that the government will invest in procuring modern teaching materials for the wildlife courses. Donor support is required although in the long-term each college should aim at gaining self-sustainability in all aspects of its training programmes.

7.3 Feedback mechanisms on the programmes and course relevance/ effectiveness

(a) BWTI

The college carries out questionnaire surveys to track former students, and organises workshops for supervisors of former students during which the performance of graduates is discussed, and improvements in the training programmes are recommended. So far among the courses offered by the BWTI, the client, *i.e.*, the wildlife agency seems to be satisfied with the certificate courses in wildlife management, problem animal control and professional tour guides' course.

(b) SAWC

The SAWC also carries out questionnaire surveys in tracking the performance of former students. Supervisors are interviewed to find out how graduates of the college are performing. Acceptability of the training programmes has, however, been marred by lack of a standardised accreditation system. Different colleges in SADC have their own systems of accreditation, and this has raised concerns by clients, who are not very sure about the quality of the qualifications offered by Southern African Wildlife College.

(c) MCFW

Feedback on the performance of former students is obtained from the field and regional supervisors, who are also involved in carrying out the training needs assessment for the Department of National Parks and Wildlife (DNPW). Former students are also interviewed to get their views on the relevance of the wildlife training programmes. The major complaint by graduates of this college, is the difficulty they face in advancing their careers, and moving up the promotional ladder within the DNPW, where high positions are the preserve of the officers with Bachelors' degree and/or higher qualifications in the fields of wildlife or natural resources management.

(d) ZCBNRMC

There is close interaction between the college and its clients, the Community Resource Boards, private sector operators, ZAWA and NGOs, which are involved in situational analyses, course design and provide feedback regarding the performance of the college's graduates. This college is in an opportune position in that it is located within the vicinity of the principal clients, hence the college's staff constantly interact with the clients and former students, thus making it easy to get feedback on the graduates' performance. Involvement of the client in carrying out Training Needs Assessment also helps the college to focus on practical issues that are relevant to the implementation of CBNRM activities.

(e) CAWM

The feedback from clients is through questionnaire surveys, which target former students, employers, and supervisors. The college also organises workshops where stakeholders participate in evaluating the courses' relevance.

Recommendations

i. While it is encouraging that all colleges carry out their own surveys to find out how they are performing and satisfying the clients, it may also be possible that the surveys could be tailored in a such a way that the true picture of their performance may not be discerned. To avoid this, we recommend that the pool of wildlife experts proposed in section 7.2 above to independently obtain feedback on the performance of the wildlife colleges. The colleges should also be assessed on their compliance with the results of the TNAs. So far little seems to have been taken on board from the numerous TNAs done in the region by the wildlife training colleges.

ii. To deal with the problem of career progression, we recommend on-job training programmes, where short courses and other informal training would confer credits, which in turn could be linked to career progression for individual employees. This recommendation was also made during the TNA of 1997, undertaken by the SADC-EU Wildlife Training project.

7.4 Professional qualifications of the teaching staff

The qualifications of the lecturers at the colleges visited varies widely, with the wildlife component of the Malawi's College of Forestry and Wildlife and the Zambia CBNRM College having the least qualified lecturers.

(a) BWTI

Of the nineteen lecturers, two have MSc, and the rest have Bachelors' degrees in Wildlife Management, or Natural Resources Management. The two with MSc are Tanzanians on contract. It is the wish of the college to have all staff trained up to MSc level. But since the college has to rely on top-level bureaucrats in the Department of Wildlife and National Parks, and Ministry Commerce and Industry to decide on who qualifies for further training, it has been difficult to make timely progress in securing scholarships to upgrade staff qualifications.

(b) SAWC

This college has five permanent teaching staff, all with degree qualifications. Besides these the college out-sources trainers with requisite qualifications for the courses being offered, and it sees this as an advantage because the best and well-trained professionals are hired on short-term basis to lecture at the college. However, irrespective of this advantage, the quality of this college's curricula for certificate and diploma (see section 7.4) casts doubts on its suitability as a centre of excellency in providing wildlife training in SADC. The curricula should be peer-reviewed by a much wide audience than what has so far been the case.

(c) MCFW

With the exception of one lecturer currently studying for a Masters degree at the University of Kent, UK, all the existing lecturers in wildlife management hold diplomas in wildlife management, this is recognised as a major bottleneck to staffs' capacity building and inhibits the quality of the programme's output. The Department of National Parks and Wildlife has no plans for building capacity of the staff lecturing in the wildlife programmes at the College of Forestry and Wildlife. In contrast, the Forestry component of the college has 7 lecturers, of whom 5 have BSc. and 2 have Msc. qualifications.

(d) ZCBNRMC

At the Zambian CBNRM College, except for the principal who has a Masters degree the rest of the teaching staff have diplomas in wildlife management. However the Zambian Wildlife Authority (ZAWA) has plans for upgrading the qualifications of this college's lecturers to MSc level, through twining arrangements with the University of Free State in South Africa. The intention is to have staff register as distance learners with the University of Free State, where they would do course work, while field research would be done under the auspices of the ADMADE programme. The Technical Advisor to the college (an employee of the Wildlife Conservation Society) would supervise the students. The college believes other countries within SADC could also benefit from this twining arrangements, by having their students register with the University of Free State, where they would do course work, while research could be done in ADMADE programme areas.

(e) CAWM

The College of African Wildlife Management has a teaching staff compliment of 16, two of them have PhDs, 13 have MSc. and one has a Bachelors degree. Thus the lecturers are highly trained to fulfil the mandate of the college. Most of the staff started their training career in wildlife at this college, and have therefore an excellent institutional memory of the college.

Recommendations

i. Malawi urgently needs to upgrade the qualification of lecturers in wildlife management. The DNPW should solicit for funds for scholarships to allow the lecturers to pursue training at degree level.

ii. The BWTI should be given full mandate to develop its own capacity building programmes for the college's lecturers.

iii. The Zambian CBNRM College also requires highly trained lecturers. Sources of funds for lecturers' scholarships should be clearly defined. Currently it is not clear if the WSC or ZAWA will be responsible for financing lecturers' postgraduate training.

iv. In general, the minimum qualifications for lecturers in various wildlife-training programmes should be determined commensurate with the curricula and level of wildlife training being offered. Experts referred to in section 7.2 should have this added to their terms of reference.

8. Organisation and governance

8.1 Legal status

(a) BWTI

The BWTI is legally recognised as an institution under the Department of Wildlife and National Parks within the Ministry of Commerce and Industry.

The college operates under the Botswana public service regulations, and controls both lecturers and students, who are civil servants. In addition, the college has specific regulations that apply to students recruited from outside the civil service. Similarly, recruitment, training and, promotions

of staff are controlled by the civil service. This is undoubtedly a bottleneck to the college's capacity building of its personnel because the principal relies on top-level bureaucrats to decide who qualifies to teach at the college and go for further training. The college has handbooks on internal disciplinary matters.

Performance management – the civil service regulations demand that civil servants, including the college's lecturers be evaluated quarterly. However, the college has only been carrying annual appraisals to review performance and contractual obligations. For students, the college uses Grade Point Average (GPA) for evaluating students

(b) SAWC

The college is registered under the South African law, section 18 (which exempts the college from paying taxes) and section 21 (which recognises the college as a non-profit making institution). The college has a board of governors, comprising membership from both government and private sector. Besides this, the college has a Training Advisory Committee. Regulations associated with the operations of the college are contained in the college's various handbooks.

Performance management – the college has a course manager, who is the internal moderator and quality controller.

(c) MCFW

The Malawi College of Forestry and Wildlife is legally recognised as an institution under the Department of National Parks and Wildlife, Ministry of Tourism and the Forestry Department, Ministry of Natural Resources. The college operates under the Malawi Public Service Regulations (MPSR), controlling both lecturers and students, who are civil servants in making. Similarly, staff recruitment, training and promotions are controlled by the respective departments and Ministries, under the prevailing MPSR. The college has its own regulations for internal disciplinary control.

Performance management – the MPSR provides mechanisms for staff evaluation, but there has been lack of objective supervision, and this is causing frustration among the lecturers, who feel abandoned. For students, the college uses Grade Point Average (GPA) for evaluating students.

(d) ZCBNRMC

The Zambia College of CBNRM is registered under the Zambian Wildlife Authority (ZAWA), and it operates under the regulation concomitant with the parastatal organisations of Zambia. ZAWA, a parastatal agency, which was formerly known as the Department of Wildlife and National Parks, has mandate to manage the country's wildlife resources in a professional and sustainable manner. ZAWA is also expected to be a self-financing authority.

Performance management – staff appraisals are done by ZAWA, while the college evaluates its students, and has regulations governing their conduct.

(e) CAWM

The College of African Wildlife Management was established under the Tanzanian Act of Parliament in 1964 as a parastatal institution. The college has a governing board comprising representatives from government, the private sector and non-government organisations. The college has legal mandate to provide technical and professional training in African wildlife management and carry out research and consultancy services in applied wildlife management, and has its own regulations that guide both students and staff in their day- to-day delivery of programmes.

The Governing Board, amongst other responsibilities, recruits the Principal and the Deputy Principal. The rest of the lecturers are recruited through recommendations provided by committees established by the governing board.

Performance management – staff appraisals are done by the Department of Customer Care, which has been specifically established to evaluate the performance of staff and market the college's programmes. Students are evaluated on the basis of their performance in theory and practicals.

Recommendation

i. The current method of evaluating students should be harmonised, and so too the systems of credit weighting for the courses being offered. Once this is achieved, it will eliminate the extant doubts that the clients have about the quality of qualifications that some of the wildlife colleges offer.

8.2 Policy guidelines

The CAWM and SAWC have well defined policy guidelines for staff recruitment, staff-appeal process, occupational health and safety, financial management, career development for staff, and staff performance management. Other colleges rely on the policy guidelines provided by the government department under which they are controlled.

9. Comparison of training curricula

Training can be defined as a systematic development of knowledge, skills and attitudes required for an individual to perform adequately in a given task or job[3]. To increase job performance, therefore, three components of behaviour should be addressed: knowledge, skills, and attitudes. Teaching should take a much broader perspective than simply teaching students what they need to know - it should also help them to change their behaviour. In this regard, an overview of the curricula for the wildlife courses (Table 2 & 3), reveal wide disparities among the colleges with respect to:

- nomenclature of the courses being offered for the same qualification;
- credit weightings; and

[3] Stone, R. (1997). What's your role? : Training for organisational impact. A guide for training officers in protected areas management. African Biodiversity Series, #5. Washington, D.C. Biodiversity Support Programme.

- course duration.

Which combined impacts on the quality of qualifications earned from these colleges

At a college specific level:

(a) BWTI

Has a curricula that is quite developed and most comprehensive for certificate courses, and in fact could be argued to be too ambitious for a certificate course. However, the entire course structure is inordinately biased towards the attainment of theoretical academic overtures rather than practical applications in wildlife management. The credit weighting seems to have evolved through a subjective process. For instance, it is not clear why some elective courses have higher credits than the required courses. The other questionable issue is whether the existing crop of lecturers, most of them with first degree qualifications are sufficiently capable of teaching the courses outlined in the college's syllabus. Similarly the available infrastructure appears to be inadequate to support the curricula offered.

(b) SAWC

Has the most generalised curriculum, which seems inadequate in terms of content and rigour for both certificate and diploma programmes. Rather it appears there is more a focus on tailoring short courses for commercial viability of the college as opposed to achieving academic excellencies and meeting the expectations of the clients. Contrary to the college's claim that 'the certificate course is designed as a skills - based, and is hands-on oriented' it is our assertion that in fact, the curricula do not seem to allude to this fact. In addition the infrastructure and equipment does not match the curricula that has been developed. In other words the infrastructure is grossly under-utilised. The curriculum for the diploma programme does not specify the credit weights for the courses, while the methodology for assigning credits to the certificate courses is not elaborated.

(c) MCFW

Has a realistic curriculum in terms of content, detail, and practical applications. However due to limited financial support, lack of clear plans for capacity building of the lecturers, and inadequate infrastructure and equipment the quality of the product has often been compromised.

(d) ZCBNRMC

There is lack of a formal curriculum based training. Rather a more practical, flexible and adaptable training approach has ensured a continued relevance of the college. However, the college needs to improve its infrastructure and upgrade the qualifications of its lecturers.

(e) CAWM

Has well defined curricula for both certificate and diploma, but just like BWTI the curricula are biased towards the attainment of theoretical academic qualifications rather than practical applications in wildlife management. It is not enough for trainees to learn about theories, procedures, and rules. More emphasis is also required in understanding practical aspects of the wildlife management. The curriculum for certificate courses is identical to the one for diploma, and even the credit weighting and reference materials for the courses offered are the same, thus casting doubts as to whether lecturers differentiate the intensity of teaching in the two programmes.

9.1. Relevance of the curricula to the duties of a Protected Area Manager

Wildlife training activities should be based on high priority needs. In terms of protected areas Assistant managers (usually holders of certificate in wildlife management) and Park Administrators (holders of diploma in wildlife, or natural resources Management), their duties are outlined in Table 4 and 5 (Annex 3).

Certificate Programmes

The job descriptions of park managers demand competence in a variety of skills (Table 4). At a certificate level, wildlife-training colleges have variously responded to this need, with the Malawi College of Forestry and Wildlife being the most responsive in this regard, followed by the Botswana Wildlife Training Institute, South African Wildlife College and College of African Wildlife Management, respectively. However, irrespective of an excellent curriculum for Malawi's wildlife training programmes, lack of financial support from government, inadequately trained lecturers, poor equipment, and insufficient training space cast doubts on the quality of the programmes' product. The Colleges of African Wildlife Management, Mweka, and Botswana Wildlife Training Institute offer strong academic courses, which are appropriate for students that wish to advance their careers for higher qualifications, while the Southern African College's strength lies in its modular short-term courses. The ZCBNRMC is unique because it has specialised in offering CBNRM, and household food security courses, which target community members. Hence it cannot be compared with any wildlife college which trains protected area managers. All colleges fell short of some skills-related courses that would adequately respond to the clients needs (Table 4).

Diploma Programmes

At a diploma level, the CAWM responds more to the job description of Park Managers than the SAWC (Table 5, Annex 3). Similarly its courses are more academically oriented and suitable for those that wish to pursue bachelors degrees in wildlife biology, or management. Graduates of the SAWC, on the other hand would find it hard to achieve the same, as the college's curriculum is too generalised and inadequate in academic thrust. The SAWC should concentrate on modular short-term course programmes, for which it seems more prepared than offering certificate and diploma courses.

Recommendations

i. Wildlife training colleges should be responsive to the needs of clients. Through dialogue between the colleges and a variety of their existing and potential clients, the colleges should endeavour to learn more about the job-descriptions of their trainees and offer courses that directly address those needs.

ii. The job descriptions of protected area managers should be refined through on-job training, with additional inputs generated and incorporated from seminars, conferences, workshops, attachments, and modular short-term courses.

iii. The SAWC should concentrate on offering modular, custom-demanded short-term courses. A system of conferring credits and accumulating them for trainees to use in advancing their careers should be developed. Otherwise the current nine months certificate and diploma programmes offered by this college do not demonstrate the rigour that is required for these qualifications. The US$8,000 charged for these programmes in nine months is exorbitant, and will certainly be a deterrent to many prospective clients.

iv. BWTI, MCFW, and CAWM should cater for certificate, or diploma in wildlife management - as appropriate. These colleges have well-balanced curricula, which simply need updating to capture contemporary concepts in wildlife management in the region, and improve their responsiveness to the clients' needs.

v. The SADC Directorate for Food, Agriculture and Natural Resources should establish mechanisms for quality assurance in the regional wildlife training programmes (see section 11).

9.2 Response to SADC initiatives

None of the colleges surveyed offers courses related to Transboundary Natural Resources Management (TBNRM), or SADC natural resources protocols, such as the Protocols on: Wildlife Management and Law Enforcement, Shared Water Resources and Tourism. Even the African College of Wildlife, Mweka, which has benefited from the SADC-EU Wildlife Training development funds is oblivious of the SADC protocols. In its courses, students learn about the wildlife policies of Tanzania, some international conventions, and the Lusaka Agreement, which has little relevance to SADC.

The TBNRMA can be defined as part or component of a larger eco-region that straddles borders between two or more countries, encompassing one or more protected areas as well as multiple-resource areas for communities and land holders[4]. The TBNRM concept has evolved in response to the need for creating integrated ecosystem conservation and socio-economic development models. This conservation paradigm is a shift from being a state-centric[5] activity to being more based in society, and particularly at the local levels, where a variety of different stakeholders are encouraged to play more proactive roles in the management of natural resources. The intention is to encourage the formation of alliances between different stakeholders: such as government

[4] Singh, J. (1998). The lessons learned: the development and management of Transboundary Parks world-wide. Contribution to the USAID Study on the development and management of trans-boundary conservation areas in southern Africa. RCSA, Gaberone, Botswana.

[5] Under the state-centric approach, rural Africans have conventionally been perceived as degraders of the environment, and it is this perception that led to their exclusion in both colonial and neo-colonial programmes of natural resource management.

departments, the private sector, local communities, and non-governmental organisations (NGOs). The priorities are to develop a consensus within these alliances, enabling the available finite skills and resources to be maximised. TBNRMAs are being established and developed in many SADC countries as a means of fostering cross-border ecosystem management and regionally packaging ecotourism development and marketing. It should therefore be in the interest of each wildlife training college to teach this concept and the associated SADC protocols to the prospective wildlife managers. Wildlife training should contribute to the aims and aspirations of SADC's regional economic integration.

Most of the colleges surveyed were unaware of the SADC Wildlife Policy and protocol on Wildlife Management and Law Enforcement. This implies that the SADC Wildlife Co-ordination Unit in Malawi has not been communicating with the wildlife Training Colleges. Copies of the relevant protocols have not been distributed to the colleges, and this may have contributed to their unawareness on the emerging regional concepts, such as TBNRM.

Recommendations

i. USAID-RCSA should organise a workshop for representatives of wildlife training colleges. During this workshop key elements from all SADC policies and Protocols on natural resources management should be availed to the wildlife-training providers so that they are able to incorporate them in the colleges' curricula.

ii. The SADC Directorate of Food, Agriculture and Natural Resources should distribute copies of the SADC Declaration and Treaty and all policies and protocols on natural resources management to the wildlife training colleges in the region.

iii. The SADC Directorate of Food, Agriculture and Natural Resources should establish communication links with the wildlife training colleges, and regularly update the colleges on new regional concepts, or treaties that relate to natural resources management, and establish mechanisms for ensuring that these are incorporated into the colleges' curricula.

9.3. Training in business approach to wildlife and protected areas management

With the exception of the Malawi College of Forestry and Wildlife (Table 3), none of the other colleges offer courses that prepare students in adopting a business approach to wildlife and protected areas management. Irrespective of the conventional approaches to wildlife management in southern Africa being constrained by dwindling financial resources, wildlife - training colleges are not preparing students to handle this challenge. Similarly, only SAWC provides awareness to the students regarding the menace of the HIV/AIDS pandemic, and yet throughout the region wildlife departments have lost many officers due to AIDS related illnesses.

Recommendations

i. USAID-RCSA should facilitate the organisation of a workshop on business approaches to wildlife and protected areas' management for representatives of Wildlife Training Colleges. The World Commission on Protected Areas has produced guidelines on financing protected areas. These guidelines should be made available to Wildlife Training Colleges, as the basis upon which they could start incorporating these approaches into their curricula.

ii. Each college should in collaboration with health authorities introduce HIV/AIDS awareness courses in their syllabi. This is particularly crucial, as AIDS has had a negative impact on the staff complement of many wildlife departments in the region.

9.4. Response to previous Training Needs Assessments

Training in the wildlife field should be viewed as an integral and planned component of the wildlife department's strategies, and should be responsive to the needs at each level and for each specialisation. Thus, appropriate training is expected to provide employees with skills and knowledge required for better performance in their jobs.

The TNA of 1997 noted that the existing wildlife training providers and training products, particularly for the certificate and diploma courses failed to provide training in many skills and attitudes required by workers. Graduates were singled out as being particularly weak in the non-academic areas of administration, project and business management, and skills related aspects of wildlife management.

In this particular assessment, we found that among the selected colleges, visited CAWM seems to have been fairly responsive to the recommendations of the TNAs, followed by the BWTI and MCFW. Inadequate response to the TNAs may be attributed to lack of awareness by the colleges due to poor communication from the SADC Wildlife Technical Co-ordination Unit, which ought to have taken up the responsibility of widely distributing the results and recommendations of the TNAs. Specifically deficient in the curricula of the wildlife training colleges are modular courses in business approaches to wildlife management, i.e., management of private sector contracts, leases and concessions, and short courses that confer credits, related to career progression for employees in the wildlife sector. Management of leases and contracts by protected area managers have becoming particularly relevant because of an emerging desire in some countries within the SADC to lease some aspects of wildlife management by the government to local authorities, the communities, the private sector and NGOs.

Other prominent recommendations by the previous TNAs, include offering a bachelors degree in wildlife management in the region, and rehabilitation of the Gorongosa Wildlife Training Institute in Mozambique for the lusophone countries (Angola and Mozambique). Due to language problems, these countries may not be participating fully in the English-based wildlife training programmes.

So far the Sokoine University in Tanzania and the University of Malawi, Bunda College of Agriculture have introduced bachelors degrees in wildlife and natural resources management. The former is offering it in collaboration with CAWM, while the latter will be offering it in collaboration with the MCFW. However, nothing has happened in the way of support to rehabilitate the Gorongosa Wildlife Training Institute for the lusophone countries.

Recommendations

i. The non-academic areas of administration, project and business management, and skills related aspects of wildlife management should be incorporated, and given prominence in curricula development;

ii. A training co-ordination unit recommended under the SADC Directorate for Food, Agriculture and Natural Resources (section 11) should ensure that TNAs are focused at identifying the requisite skills and knowledge required for better performance of the protected areas managers on their jobs;

iii. As the process of managing wildlife is complex and often influenced by unpredictable factors, an adaptive approach to TNA should be adopted to allow for sudden changes in ecosystems and wildlife status to be accommodated in the curricula of the wildlife training colleges. The proposed SADC Wildlife Training Regulatory Authority (WTRA) (see section 11) should closely monitor the colleges' responsiveness to and compliance with the recommendations of the TNAs

iv. USAID-RCSA should financially assist the two universities that have introduced bachelors' degrees in wildlife management. This assistance should be in the form of curricula development, and development of strategic plans for these colleges to attain self - financial sustainability.

v. .We reiterate the previous TNA's recommendation for the rehabilitation of the Gorongosa Wildlife Training Institute for the lusophone countries. These countries have serious shortages of trained personnel in the wildlife field. Donor support is urgently required for developing training facilities and curricula for these countries.

10. Sustainability of the training institutions

A number of factors can contribute to the sustainability of the SADC wildlife training institutions. These include, among others, the demand and popularity of the courses being offered, ability to downsize or eliminate unfunded services, availability of mechanisms that capture adequate revenues from the operations of the college, and establishing trust funds. Overall, each college needs to have a business plan.

All the colleges visited realise the need for attainment of self-sustainability, although the approaches to doing so vary among them. For instance;

(a) BWTI

Has plans to raise income by:

- offering consultancy and research services;
- hosting workshops in its multipurpose hall complex;
- Building of a cultural village, which is expected to be a tourist attraction;
- Training of the professional guides for the private sector; and
- Introducing entry fees to the museum and swimming pool.

The college however does not have a business plan, consequently, it does not know if the revenues to be raised from the activities outlined above will be able to break-even with the operational costs, estimated at about 3.2 million Pula (US$533,000) per annum.

(b) SAWC

This college has been established as a section 18 (which exempts it from paying taxes) entity and section 21 company (which recognises the college as a non-profit making institution). Furthermore, the college has a business plan and has established a Trust Fund, and by charging fees at commercial rates for short courses, and with the assurance by WWF to pay bursaries and scholarships for some needy students for the next ten years, the college may gain self-sustainability. However, the college's inadequate curricula, and exorbitant fee-structures (e.g., US$2000/week) for short-term courses may deter potential clients from sending potential students to the college. This would undoubtedly negatively impact on the college's long-term sustainability.

(c) MCFW

With the current meagre levels of funding from Government, the future of the wildlife-training programme is bleak. Attempts are being made however, to introduce short courses in beekeeping, small game farming, guided tours in the Chongoni Forest Reserve, wildlife education, and public awareness. The fees obtained from these could be put in a revolving fund, but this initiative is being frustrated by the government's requirement that such funds be deposited into the government's treasury. The college intends to challenge this directive, but its success will depend on the support of the DNPW and Ministry of Tourism. It is the wish of all concerned that high level bureaucrats will timely resolve the problem. Among the colleges visited, the Malawi's wildlife training programme is in dire financial need, and therefore, in the short term it requires donor intervention. This support could be in a form of establishing a revolving fund, which could be complemented by the revenues accruing from activities outlined above. Currently, this college is operating without a business plan.

(d) ZCBNRMC

Is currently run with a very humble budget of about US$30,000 per annum, provided by the Wildlife Conservation Society and contributions from ZAWA. It fully recognises the need to make the college self-sustainable. Potential sources of funds to achieve this include charging fees for trainees, and it aims to institute a Trust Fund. This college should slowly wean itself from donor financial dependency. This college has no business plan, but it has potential to earn good revenues if levies can be charged on the safari companies operating in the Game Management Areas, which are being managed under the supervision of the CRBs.

(e) CAWM

Is making attempts to develop financial sustainability through:

- offering concessions for consumptive (safari hunting) and non-consumptive utilisation (e.g., photographic safaris) in the Kwakuchinja and Mount Meru localities. The two areas combined currently generate about US$40,000 per annum;

- establishing a scholarship fund[6], initially for Tanzanian student, but with a possibility of extending it to other nationalities in the long -term. The purpose of this fund is to reverse the declining trends in the number of students enrolling at this college due to exorbitant fees (US$6,000/annum for foreigners and US$3,125/year for nationals);

- charging commercial rates for short (3-4 courses per year) and long term (certificate and diploma) courses. The long-term courses contribute about 85% of the annual recurrent income of the college;

- offering consultancy services in wildlife conservation and management, and natural resources and environmental management.

The biggest challenge for this college is to make its programmes competitive, whilst at the same time keeping it affordable.

Recommendations

i) USAID-RCSA should finance and facilitate the development of strategic and business plans for the BWTI, MCFW, and ZCBNRMC. These plans should:

- be developed within the overall context of the colleges' legal framework, ensuring that generating revenue is a means towards the end of more effective training programmes;
- define relevant clients and identify ways of capturing fair returns from them, as well as ensuring that clients are able to practically utilise the acquired skills;
- market the training programmes and adopt an adaptive commercial approach, which responds to course demands;
- clarify the college's objectives, product, the relevant clients/users, the financial needs and the resources available to the college;
- provide a break-even analysis (which identifies when the training business is expected to turn into profit), including cash flow and profit and loss projections.

[6] Source of money for this fund has not been specified, but presumably donors will be approached for donations

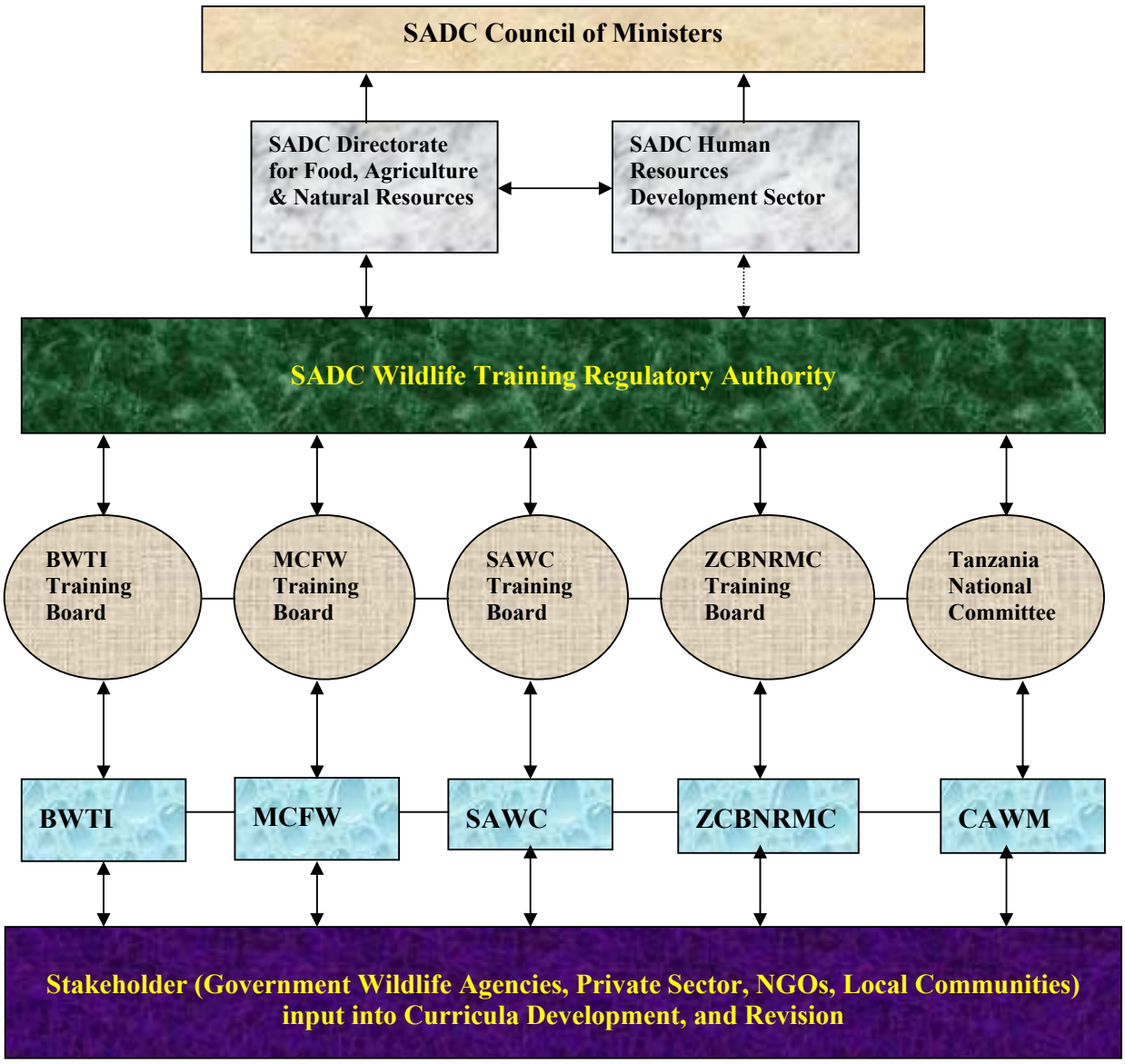
- focus on offering high quality, demand-driven wildlife training programmes, and develop marketing strategies that foster diversification of the clients. Traditionally, most of the wildlife training colleges have relied on governments as the main client, thus over-looking the fact that other stakeholders have increasingly become involved in the management of wildlife. With most government's experiencing shrinking financial capacities to develop sufficient human resources that would sustainably manage wildlife and ecosystems, new alliances and partnerships are being formed among private sector, local communities, and NGOs as a means of enabling the available finite skills and resources to be maximised. Therefore, wildlife-training colleges should be reflective enough to capture the needs of other stakeholders such as the private sector, NGOs, and local communities.
- set fees that are affordable, and commensurate with the quality of the courses being offered.

11. Co-ordination of wildlife training at SADC level

Wildlife training programmes in the region are characterised by poor synergies and unresponsiveness to the clients changing needs and contemporary SADC approaches to biodiversity conservation and protocols for the management of ecosystems that transcend national borders. Furthermore, lack of a unified accreditation system, has resulted in the wildlife training programmes of each college being neither well known, nor widely accepted. Consequently graduates of these colleges have found it difficult to pursue university training at degree levels, as well as being unable to get promoted at their work. To streamline and harmonise the standards of TNAs, and quality of wildlife training, a SADC Training Wildlife Training Regulatory Authority should be established under the Directorate of Food, Agriculture and Natural Resources, charged with the responsibility of co-ordinating, regulating and accrediting wildlife training courses in the region.

The proposed institutional framework for accomplishing this is shown in Fig. 1 below.

Fig. 1. Proposed institutional Framework for Creating Synergies and standardisation of the SADC Wildlife Training



11.1 Responsibilities of various entities proposed for improving standards of wildlife training

(a) SADC Council of Ministers

With respect to training in the wildlife field, the SADC Council of ministers shall:

i) approve regional wildlife training policies and quality standards;
ii) approve the establishment of a SADC Wildlife Training Regulatory Authority, including a budget for its operations;
iii) review progress on the responsiveness of Wildlife Training Colleges in incorporating in their curricula, regional approaches to wildlife conservation, including SADC protocols related to the management and conservation of natural resources; and
iv) approve proposals for enhancing the efficiency, effectiveness, quality and sustainability of the wildlife training in the region.

(b) SADC Directorate of Food, Agriculture and Natural Resources

i) shall propose to the SADC Council of ministers, the establishment of a SADC Wildlife Regulatory Authority[7].(WTRA);
ii) Develop detailed terms of reference for the WTRA;
iii) supervise the activities of the WTRA, and certify the standards and quality assurance set by the WTRA for regional wildlife training programmes;
iv) certify proposals submitted by the WTRA for improvements in efficiency, effectiveness, quality and sustainability of the regional wildlife training programmes;
v) regularly update the WTRA on the approved SADC concepts, policies and protocols related to natural resources conservation in the region;
vi) seek funding for SADC Wildlife Training programmes; and
vii) receive report on progress being made in the standardisation of wildlife training in the region.

(c) SADC Human Resources Development Sector

i) shall avail to the WTRA all policies and guidelines related to SADC human resources development; and
ii) liase with the SADC Directorate of Food, Agriculture and Natural Resources in providing guidance to the WTRA in performing its functions.

(d) SADC Training Regulatory Authority

Shall in liaison with the ***Wildlife Training Boards*** and the ***Wildlife Training Colleges***:

i) harmonise the systems of course accreditation, and set quality standards for wildlife training;
ii) set minimum qualifications for lecturers at each level of wildlife training;
iii) harmonise the system of evaluating staff and students;

[7] This body will comprise of experts in the field of wildlife and training, and not have a permanent office, but will meet regularly to discuss and formulate guidelines for wildlife training in SADC

iv) develop and submit proposals to the SADC Directorate of Food, Agriculture and Natural Resources (FANR) for improving efficiency, effectiveness, quality and sustainability of the regional wildlife training programmes;
v) develop guidelines for carrying out TNAs, and obtaining feedback from clients on the relevance and quality of the wildlife training programmes being offered;
vi) facilitate the development of strategic and business plans for wildlife training programmes;
vii) monitor compliance with the set quality standards, and ensure that; and at a defined interval physically inspect the wildlife colleges to ensure that they are being responsive to the clients' and regional wildlife training needs;
viii) develop budget for accomplishing these activities; and
ix) submit progress reports to the SADC Directorate of FANR

(e) Wildlife Training Boards

i) review and approve the curricula, and strategic and business plans;
ii) approve staff recruitment; procurement of training materials and equipment;
iii) ensuring that quality standards of training in the wildlife field are maintained;
iv) approve capacity building plans for wildlife colleges, and source funds for training of lecturers;
v) approve proposals for the development of the wildlife colleges, training programmes, and Trust Funds, where applicable;
vi) approve annual budgets for the colleges' development and operations;
vii) review progress report on the performance of the college; and
viii) monitor the college's compliance with quality standards set by the WTRA.

(f) Wildlife Training Colleges

i) Should ensure that their programmes are responsive to the clients' and regional needs;
ii) Undertake TNAs in collaboration with all stakeholders, and ensure that the focus is on identifying requisite skills and knowledge that is required for better performance of protected areas managers;
iii) Liase with the WTRA and Training Boards in developing strategic and business plans;
iv) maintain close liaison among each other, and adopt a synergetic approach to curricula development and marketing of the wildlife training programmes;
v) develop terms of references for wildlife lecturers

(g) Stakeholders

i) Stakeholders with interest in wildlife training include government agencies, the private sector, NGOs and local communities. These should provide input into curricula development and revision.

Annex 1. Terms of references

A Consultant Scope of Work
RAPID Task Order Sub Strategy Development Specialist
(Short-term Consultant Under TO 1)

1. Background: RAPID Activity and TO Development Requirements

RAPID Activity: On April 11, 2000, Chemonics International, Inc. was issued a five-year contract by the Regional Center for Southern Africa (RCSA) of the U.S. Agency for International Development (USAID) to implement the "Regional Activity to Promote Integration Through Dialogue and Policy Implementation" (RAPID). The purpose of RAPID is to provide quick-response short-term technical services related to policy analysis, policy dialogue, and support for implementation of policy changes under RCSA's development assistance program for Southern Africa. RAPID supports RCSA's strategic objectives (SO's) for assisting the further integration of the Southern African Development Community (SADC) member countries in the critical areas of regional market integration (SO 2), increased cooperation in the management of shared natural resources (SO12), and expanded commercial markets for agricultural technologies and commodities (SO 13). The Chemonics/RAPID consortium is composed of U.S. and Southern African partners with predominate capabilities to support RCSA Strategic Objectives 2, 12 and 13. Chemonics implements RAPID under an Indefinite Quantity Contract (IQC) that provides for a series of short-term task orders to be managed by a long-term Core Team, based at the Chemonics/RAPID office in Gaborone.

The RAPID Core Team is funded under Task Order 1 to provide long-term management/administrative services and reports related to RAPID implementation. The Core Team receives concepts from the RCSA SO teams and develops Task Orders, which are then issued by RCSA to Chemonics. Sub-task orders are then issued by Chemonics to the relevant RAPID consortium partners for the consultants they provide to perform the SOW. The RAPID Core Team Task Order (TO) Manager (Agriculture/NRM Advisor) then supervises implementation of the task order, in collaboration with the RCSA/RAPID Cognizant Technical Officer (CTO) and the RCSA Activity Management Unit (AMU) responsible for the intermediate results that are to be achieved in support of the respective SO.

The relevant SO team funds each TO, and the TO team assists the SO team in expediting the Southern African regional integration process by providing technical services to develop policies necessary to implement regional protocols and agreements. The TO contributes to the intermediate results that have been identified as practical indicators of SO achievement. The activities performed under a typical task order are strictly determined by the scope and nature of the concept that an SO team requests the RAPID Core Team to address. Over time, the SO teams' priorities, as demonstrated by the concepts presented to the RAPID Core Team, will change as the respective AMUs resolve earlier problems and identify new opportunities to assist the regional integration process. In general, technical assistance will be provided within a process-consulting framework that produces:

a) Analyses of best practices for developing and implementing regional protocols for regional integration of trade, improved trans-boundary management of shared natural resources, and expanded regional agricultural markets;
b) Seminars and workshops to help SADC member countries expedite the regional integration process through the development and implementation of relevant

protocols; and

c) Analytical studies that help SADC member countries understand the costs of current regional policy constraints on trade, shared natural resource management, and agricultural markets, and the benefits of expediting the regional integration process.

Task Order Development Requirements: Under a recently approved contract modification, RAPID has been given responsibility for providing short-term technical assistance through Task Order 1 to assist SO 12 Team in designing future activities including scopes of work, sectoral assessments, and program strategies in critical activities that require expedited development and implementation. RCSA has identified an activity that requires such assistance from RAPID:

PURPOSE OF WORK

The primary objective of this Scope of Work is to obtain the services of a team of **two consultants** to conduct a broad-based assessment of wildlife training institutions in the SADC region in an effort to enhancing wildlife training capabilities in the region as well as creating improved synergies between these institutions. This activity is under the framework of Strategic objective No. 12 "Increased Regional Co-operation in the Management of Shared Natural Resources". Within SO-12, the activity falls under the Intermediate Result 12.3: Organisations and Institutions capable of effective regional intervention. The activity would yield a much clearer picture of what kind of training is being provided and by whom, strengths and weaknesses of the individual training institutions, appropriateness of curriculum and a customer driven analysis of current training and manpower needs.

BACKGROUND:

The SADC Wildlife Sector Technical Co-ordination Unit is in the process of developing plans to guide training in natural resources management, in particular wildlife, to ensure that it contributes to the purpose of SADC. The purpose of SADC is to accelerate economic integration, facilitate co-operation and collaboration amongst member states, with a view of creating synergy and stability.

There are about seven wildlife-training institutions in the region. Following a series of consultations it was realised that there is limited communication and collaboration between them. As a result, these institutions are competing for a limited market without offering training to meet due demand. There is therefore an urgent need to co-ordinate the effort of the wildlife training institutions in the region. This can be accomplished by adopting a more integrated approach to training needs analysis and development of a SADC accreditation system.

The USAID/RCSA Natural Resources Management Program (SO #12) supports the management of shared natural resources through increased co-operation among the countries of Southern Africa**.** This can be achieved by making the organisations and institutions capable of regional intervention, among other things. One of the objectives in the areas of support was identified as facilitating training (in the region) around this common area of shared natural resources management. It is therefore with RCSA's manageable interest to support this initiative.

The SO 12 Team is seeking technical assistance under this proposed Task Order to conduct a broad-based assessment of wildlife training institutions in the SADC region to get a much clearer picture of what training is being provided and by whom, what are the trends in the wildlife sector and how they need to be addressed, strengths and weaknesses of the individual training institutions, and a customer driven analysis of current training needs. With this data, recommendations can be made on possible options for creating improved synergies between these institutions. This will in turn be the basis of support that RCSA can provide in this field.

It is expected that **two consultants** will be needed to carry out the proposed work over a period of seven weeks. The activity will involve travelling to Tanzania, Malawi, Zambia, Zimbabwe, South Africa, and Botswana to consult with Wildlife training institutions. The consultants will also have meetings with RCSA, the SADC Wildlife Sector Technical Coordination Unit and other relevant institutions.

2. Tasks to be Completed

General: The Task Order Development Specialists will be responsible for developing a substrategy for harmonizing wildlife training in Southern Africa over approximately a 6-week period.

Specific: The Task Order Development Specialist will be responsible for the following specific tasks:

1. Assessing the capacity and capability of individual wildlife training institutions to deliver programs.

The **Capacity** of an institution could be determined by assessing whether or not it has the following in place:

- Policies and procedures – for own staff, disciplinary issues, recruitment qualifications and procedures particularly for training staff appeal process, occupational Health and Safety. Policies and procedures should also cover financial management, performance management and career development on the part of the personnel.
- Occupational Health and Safety measures in place. (This can be covered under policies and procedures)
- Appropriate infrastructure and equipment.
- Administration – training records/tracking of learners.
- Training programs in place with curricula and learning materials, delivery methods etc.
- Operating mandate (act of establishment or registration) that builds its legal status to undertake training

Capability would be evaluated against:

- The trainer's competence to:-
  - (a) Design and develop training programs
  - (b) Design and develop training materials
  - (c) Assess learners / design & develop assessment plans
  - (d) Evaluate and update training programs, learning materials, etc.

Note: The trainer's competence would be a function of requisite qualifications (knowledge), skills and attitude to training.

2. Examining the sustainability of training institutions.

- **Institutional sustainability**: Built through a system of mandates, policies, regulations, structures, procedures etc. that enable the institute to operate with focus and ability to respond to challenges that lead to growth. Matters of decision making, resource allocation, strategic planning are enabled by a systems sustainability

- **Financial Sustainability**: This will cover the following aspects

  (a) Business Plan linked to a budget, showing that income through training covers/will cover expenses within the next three to five years. (The business plan should be linked and responding to a strategic action plan or co-operate plan)
  (b) Sufficient demand for the training offered to enable the institution to operate on a financially sustainable basis.
  (c) Indicate sufficient donor/government support into the future.
  (d) More than one facet to it financial = becoming less of a burden to donors and/or government. (How)
  (e) Training in demand – institution being viewed as a credible, relevant regional training institution whose training programs are in demand from own country and other SADC countries.
  (f) Training institution should seek to diversify source of revenue such as consultancy, bench/institutional fees, endowment/trust funds

Training institutions need to be a lot more attuned to client requirements, responding quickly and innovatively to specific requirements for custom-made training programs and/or continually updating curricula in order that they address the changing needs of managers within wildlife and biodiversity conservation.

3. Training Needs Analysis

There have been several Training Needs Assessments (TNA) carried out over the last five years, e.g. the PARCS project carried out a TNA of the needs of P.A. managers in Southern and East Africa; and the Wildlife Management Training Program, also conducted a TNA in most of the SADC countries. This requires updating and some expansion to include countries like South Africa. These assessments should then be used to refocus the curriculum content of regional and/or national wildlife/biodiversity training institutions. Specific activities include:

- Reviewing TNA in countries where this was done
- Conducting TNA in South Africa and other countries where this has not been done

3. Identify areas of potential synergies between institutions

4. Explore possibilities of introducing a regional accreditation process. This should be examined in two critical contexts

4. Deliverables

a. Detailed Assignment Work Plan (approved by SO12, immediately after the consultants are fielded, and before further work is undertaken)
b. Weekly Progress Report Summary (one page – results of last week/plans for next week), sent by e-mail or fax to RCSA when the team is out in the field.
c. Report detailing current status of wildlife training institutions in terms of capacity and capability to deliver training, training needs, strategy for harmonizing training and for introducing a regional accreditation program.
d. Recommendations on the interventions that should be undertaken by RCSA to facilitate improved synergies between these institutions

5. Consultant Qualifications

The Task Order Development Specialists should have the following minimum qualifications to perform this SOW:

- extensive experience in the institutional analysis, ideally in the SADC region;
- demonstrated understanding of barriers to effective natural resources management in the region and how to overcome them;
- previous experience in analysing and addressing capacity constraints to regional natural resources management, ideally in the context of the SADC region or other regional agreements;
- a good track record for the timely delivery of results on a consultancy basis, despite severe time constraints; and
- excellent writing and presentation skills

The following qualifications will be added advantages in performing this assignment:

- Masters level training in NRM, policy analysis, or project analysis;
- Work experience with training in Africa, particularly Southern Africa;
- Recent experience in designing projects, delivery orders, and task orders for development assistance programs.

9. Location of Assignment

This assignment will be conducted at the Chemonics/RAPID office in Gaborone, Botswana, in close collaboration with the USAID RCSA in Gaborone. The assignment includes regional travel to respective wildlife institutions.

10. Supervision of Consultant

The Task Order Development Specialists will be supervised by the RAPID NRM Advisor . However, the consultants will be expected to collaborate with the Leader of RCSA SO 12 Team, or a designated representative, in the completion of this scope of work

Annex 2. Questionnaire used in the survey

CHEMONICS-RAPID TASK ORDER 1.9: ASSESSMENT OF SADC WILDLIFE TRAINING INSTITUTIONS|

QUESTIONNAIRE

A) Overall programme: Can you give us a synopsis of the Wildlife Programmes offered at this college ----------

B) When was this college established? ----------

C) What level of Wildlife training do you offer?----------

D) How many students do you have per offered discipline?----------

E) How many lecturers do you have (i) permanent staff-----(ii) short-term hired staff--

F) Who sponsors operations of this college?----------

G) Why was this college established?----------

H) *Sustainability Readiness* of wildlife training institutions

1. Capacity and capability of individual wildlife training institutions		
1.1. *Capacity*		
1.1.3 Does the college have adequate infrastructure		
1.1.4 Does the college have adequate equipment		
1.1.5 Does the college have records on trainers & trainees, trends?		
1.1.6 what is the student – teacher ratio? Are you satisfied with it?		
1.2. *Capability*		
1.2.1 How are training programmes designed & developed ?		
1.2.2 How is the curriculum designed		
1.2.3 How often have the programmes and curriculum been revised in the last 10 years		
1.2.4 How are training materials designed, prepared/procured & up-		

dated?		
1.2.5 Do you have any feedback mechanism from the graduates and clients?		
1.2.6.5 Do you have a monitoring and evaluation system of your programmes? If so explain		
2. Sustainability of training institutions		
2.1 How do you guarantee the sustainability of this college?		
• What structures exist to contribute to sustainability of the college		
• Resource allocation		
• Strategic planning		
• What is the staff-turn over in the last five years?		
• What is the proportions by nationality of the trainees		
• What is the proportion of trainees by client (*e.g.*, govt, NGOs, Private sector, CBOs, local community, etc)`		
• Does the college have twinning arrangement with other colleges? If so which ones?		
• How does the college advertise itself?		
2.2 Financial sustainability		
• How do you guarantee financial sustainability		
• Do you have a business plan? If so elaborate		
• Is there sufficient demand for the training offered		
• What is the current funding sources and their proportions by donor/provider		
• How much fees do you charge per student?		
• Do you have permanent staff or you depend on hired consultants		
• Does the fees charged cover some or all the costs of courses offered?		
• Are fees charged calculated to cover costs?		
• How do you monitor overhead costs to keep them low		
• Do you have mechanisms to monitor overhead costs to keep them low		
• Does the fees charged cover some or all the costs of courses offered?		
• Does the college recover a significant part of operational costs?		
• Do you have mechanisms to downsize or eliminate unfounded services?		
4. Organisation and governance		
4.1 Does the college have a vision and mission statement?		
4.2 Is the college a registered institution, if so at what level?		
4.3 Does the college have regulations?		
4.4 Do you have any policy guidelines on:		
• disciplinary issues,		
• recruitment (qualification, gender, etc)		
• staff appeal process		
• occupational health and safety		

• financial management		
• performance management		
• career development for staff		
• What is the key strength of this college?		
• If this college was to be a SADC centre of excellency, what would be its main focus, strategy and strength?		
5. SADC initiatives		
5.1 Is the college aware of various SADC protocols, such as:		
• Protocol on Wildlife Conservation and Law Enforcement		
• If the college is aware of this, how is it preparing to integrate this particular policy in its own programmes?		
5.2 Trans-boundary Natural Management (TBNRM) is a rapidly growing initiative in the region how is the college accommodating this initiative in its training programmes?		
5.3 Does the college have a clear understanding of the TBNRM initiative?		

I) What are the major future plans for this college?----------

J) Do you have comments on what you think training in wildlife should be focussing on, and organised in SADC----------

K) Can we have an opportunity to see the college's curriculum?

L) General comments on the quality of the college (consultants' assessment of the buildings, surrounding environment, equipment, staff attitude, etc)----------

Annex 3. Tables

Table 2. Comparison of the curricula for a certificate in wildlife management offered by the surveyed colleges

BWTI, Maun, Botswana		**CAWM, Mweka, Tanzania**	**SAWC, HOEDSPRUIT, SOUTH AFRICA**	**CFW, DEDZA, MALAWI**
Invertebrates & lower vertebrates I: Ichthyology	***R[8] 1 Credit***	Course introduction (***0 Credit***)	Basic learning skills (***0 Credit***)	
Invertebrates & lower vertebrates II: Entomology	***R 1 Credit***	Field orientation, including first aid (***1 Credit***)	Soil and climate (***0 Credit***)	Apiculture (***3 Credits***)
Invertebrates & lower vertebrates III: Herpetology	***R 1 Credit***	Wildlife biology: plants (***9 credits***)	Provision of water supply (***2 Credits***)	Botany (***3 Credits***)
Vegetation	***R 3 Credits***	Wildlife biology: fish, amphibians & reptiles (***6 Credits***)	Cultural sites management (***2 Credits***)	
Mammals	***R 3 Credits***	Wildlife biology: Mammals & birds ***(***9 Credits***)***		***Zoology (mammalogy, ornithology, herpetology, ichthyology) (***2 Credits***)***
Ornithology	***R 3 Credits***	General ecology (***6 Credits***)	Ensuring ecosystem integrity (***12 Credits***)	
Ecology I	***R 2 Credits***	Field identification & ecological monitoring (***10 Credits***)	Philosophy and ethics of conservation (***4 Credits***)	
Ecology II	***R 2 Credits***			Ecology (***3 Credits***)
Fire Ecology	***E[9] 1 Credit***		Fire as a conservation tool (***3 Credits***)	
Vegetation classification & herbarium techniques	***E 4 Credits***		Vegetation management (***25 Credits***)	
Geography	***R 2 Credits***		Catchment management (***4 Credits***)	Earth sciences (***2 Credits***)
Elementary statistics	***R 2 Credits***	Basic statistics and data collection (***6 Credits***)		Biostatistics (***1 Credit***)
Mathematics remedial	***1 Credit***			
Basic biology remedial	***1 Credit***			

[8] Required subject
[9] Elective subject

Radio communication & maintenance	***R 1 Credit***			
First aid	***R 2 Credits***		First aid – level 1(***0 Credit***)	First aid (***2 Credit***)
Weapons training I	***R 2 Credits***	Introduction to firearms (***6 Credits***)		Weapon handling (***4 Credits***)
Weapons training II	***E 2 Credits***			
Bushcraft & survival skills	***R 3 Credits***			Drill and field craft (***4 Credits***)
Patrol planning & execution	***R 4 Credits***	Anti poaching and law enforcement (***6 Credits***)	Legislative guidelines (***4 Credits***)	Policy, law and enforcement (***4 Credits***)
Wildlife management techniques	***R 3 Credits***	Introduction to wildlife management (***6 Credits***)	Introduction to ecological processes (***0 Credit***)	Wildlife management techniques (***4 Credits***)
Fire management	***R 3 Credits***	Wildlife management (***10 Credits***)	Animal management (***25 Credits***)	
Habitat management	***R 2 Credits***		Vegetation management & monitoring (***25 Credits***)	
Community extension I	***R 1 Credit***			Extension (***3 Credits***)
Community extension I, Unit II: working with communities	***R 2 Credits***	People and conservation (***6 Credits***)	Community development and conservation (***0 Credit***)	Community Based Natural Resources Management (***4 Credits***)
Community extension II: Participatory Rural Appraisal	***E 2 Credits***			
Environmental & conservation education	***R 2 Credits***			
Animal health & diseases	***R 1 Credit***			Wildlife diseases (***2 Credits***)
Problem animal control	***R 2 Credits***			
Implementation of park management plans	***R 3 Credits***		Protected areas management plans (***4 Credits***)	
Tourism I	***R 3 Credits***	Tourism & tour guiding I (***9 Credits***)	Tourism management (***4 Credits***)	
Tourism II)	***E 2 Credits***	Tourism & tour guiding II (***10 Credits***)		Ecotourism (***2 Credits***)
Building construction & maintenance, Unit I	***E 1 Credit***	Infrastructure construction and maintenance (***6 Credits***)	Infrastructure management (***12 Credits***)	Carpentry and buildings (***1 Credit***)
Building construction & maintenance, Unit II – Plumbing	***E 1 Credit***			

Building construction & maintenance, Unit III – history and tradition of trade building	***E 1 Credit***			
Basic electrical maintenance	***E 3 Credits***			
Basic vehicle maintenance	***E 3 Credits***		Vehicle maintenance & 4 x 4 skills (***3 Credits***)	Introduction to mechanics (***1 Credit***)
Basic road construction & maintenance	***E 3 Credits***			Land use and surveys (***1 Credit***)
Park interpretation I	***R 1 Credit***			
Park interpretation II	***R 4 Credits***			Wildlife education and interpretation (***3 Credits***)
Department of Wildlife & National Parks: organisation & procedures	***R 1 Credit***			
Policy & Conventions on conservation of natural resources	***E 1 Credit***			
Public relations	***R 1 Credit***			
Communication skills	***R 1 Credit***			
Leadership and supervisory skills	***R 1 Credit***	Basic administration and supervision skills (***6 Credits***)	Personnel management (***2 Credits***)	Administration and human resources management (***3 Credits***)
Introductions to computers	***R 1 Credit***			
Database and information management)	***E 4 Credits***		Computer literacy (***6 Credits***)	Information technology (***2 Credits***)
			Environmental impact assessment (***0 Credit***)	Research, planning and environmental impact assessment (***2 Credits***)
				Wildlife business management (***2 Credits***)
			Office and financial management (***4 Credits***)	

Table 3. Course outline for the Diploma in wildlife management/natural resources management

CAWM, MWEKA: ORDINARY DIPLOMA (2 YEAR PROGRAMME)	**CAWM, MWEKA: ADVANCED DIPLOMA (1 YEAR PROGRAMME)**	**SAWC, HOEDSPRUIT, SOUTH AFRICA DIPLOMA (9 MONTHS PROGRAMME)**
Year 1	Year 1	***Year 1***
Course introduction (***0 Credit***)	Course introduction (***0 Credit***)	First aid – level 1
Orientation to wildlife management (***1 Credit***)	Land use management (***9 Credits***)	Communication and research skills
Resource inventory: invertebrates (***6 Credits***)	Managing professional hunting (***6 Credits***)	Landscape management
Resource inventory: fish, amphibians & reptiles (***6 Credits***)	Eco-tourism planning and management (***6 Credits***)	Principles of project management
Resource inventory: birds (***6 Credits***)	Forest ecosystem conservation (***6 Credits***)	Human resource management
Resource inventory: mammals (***6 Credits***)	GIS and conservation (***12 Credits***)	Natural resource management
Resource inventory: plants (***6 Credits***)	Wetland and marine conservation (***9 Credits***)	Environmental development plans
Resource inventory: Safari (***8 Credits***)	Biodiversity conservation (***9 Credits***)	Integrated catchment management
Statistics and data analysis (***6 Credits***)	Participatory planning & community conservation (***9 Credits***)	Community development and conservation
Wilderness skills (***8 Credits***)	Project planning for conservation (***6 Credits***)	Introduction to resource economics
Wildlife ecology (***9 Credits***)	Environmental assessment of conservation projects (***6 Credits***)	Environmental education
Range ecology an management (***6 Credits***)	Conservation project economics management (***6 Credits***)	Tourism management
Behavioural ecology (***6 Credits***)	Research methodology & conservation (***12 Credits***)	Natural resource protection
Conservation biology (***12 Credits***)	Research project (***24 Credits***)	
Conservation: policies, organisations & strategies (***6 Credits***)		
Protected areas infrastructure management (***6 Credits***)		
Managing tourism in protected areas (***9 Credits***)		
2nd Year		
Wildlife management: concept and techniques (***9 Credits***)		
Communication skills for conservation (***6 Credits***)		
Advanced firearms (***6 Credits***)		
Legislation and enforcement (***6 Credits***)		
Wildlife utilisation (***6 Credits***)		
Community conservation (***9 Credits***)		
Wildlife utilisation and community conservation (***12 Credits***)		
Wildlife economics (***6 Credits***)		
Environmental impact assessment (***6 Credits***)		
Protected area planning (***6 Credits***)		

Protected area planning: Safari (***12 Credits***)		
Research methods (***9 Credits***)		
Research project (***8 Credits***)		
Administration and financial management (***9 Credits***)		

Table 4. Key duties of Protected Area Assistant Managers - with a certificate in Wildlife Management and level of response by Wildlife Training Colleges in preparing them for their fieldwork

Principal duties of a Protected Area Assistant Managers	**An indication of whether the wildlife colleges address the defined duties. Note 2 shows that the college address it, while % shows that it is not addressed**[10]				
	BWTI	**SAWC**	**MCFW**	**ZCBNRMC**	**CAWM**
Visitor services					
Collect visitor statistics;	2	2	2		2
Monitor visitor activities	2	2	2		2
Provide information about the reserve or park to visitors	2	2	2		2
Management of protected areas resources					
Maintenance of the reserve or park boundaries	2	2	X		X
Establish and maintenance of an annual fire burning policy	2	2	2		2
Controlling of exotic plants;	2	2	2		2
Monitor the ecosystems' health and number of key wildlife species and their distribution.	2	2	2		2
Public relations					
Co-ordinating and overseeing public relations activities in and around a protected area	2	x	2		x
Development of environmental education materials	2	2	2		2
Technical services					
Preparing plans for the maintenance of roads, drainage, bridges, buildings, vehicles, equipment, sign posts & waterholes (where applicable)	2	2	2		2

[10] The table only presents summaries. Details of the courses offered are presented in the individual college's curricula

Law enforcement					
Co-ordinating and participating in law enforcement	2	2	2	2	2
Collecting data on all illegal activities	2	2	2	2	2
Problem animal control					
Identifying problems and recommending problem animal control (PAC) actions	2	x	2		2
Co-ordinating PAC in and around protected area.	2	x	2		2
Research and monitoring					
Assisting with research and monitoring activities**;**	%	x	2		2
Monitoring the activities of the private sector;	%	x	X		2
Implementing relevant recommendations emanating from research.	%	x	2		2
Community liaison					
Participate in the formulation of community participation action plans.	2	2	2	2	2
First aid					
a) Administering first aid when necessary	2	2	2		2
Administration					
Carry out performance appraisals of the subordinate staff;	X	2	2	2	2
Formulation and implementation of management plans	2	2	2	x	**x**
Counsel subordinate staff and maintain harmony among staff	2	2	2		2
Prepare quarterly and annual reports for submission to the Reserve, or Park Administrator.	2	X	2		2

Table 5. Principal duties of Protected Area Managers - with a diploma in Wildlife Management and level of response by the Wildlife Training Colleges to preparing them for their fieldwork

Principal duties of a Protected Areas' managers	**An indication of whether the wildlife colleges address each of the defined duty, note 2 shows that the college address it, while % shows that it is not addressed**	
	SAWC	**CAWM**
Management of protected areas		
Ensure that ecosystems, flora and fauna of protected areas are managed according to approved management plans and international conservation norms	2	2
Visitor services		
Compile and analyse tourism statistics	2	2
Monitor concessionaire compliance with protected area regulations and concession agreements, visitor satisfaction levels, visitor activities and conduct	2	2
Inspect visitor facilities within the Protected Area and take corrective action as necessary	2	2
Provision of adequate visitor information (brochures, maps, signage)	2	2
Participate in planning and development of visitor facilities according to the approved Management Plan/s	2	2
Closely liase with communities both inside and adjacent to the Protected Area/s regarding implementation of the Approved Management Plan.	2	2
Technical Services		
Identify shortfalls in inputs required to implement annual plans	2	2
Co-ordination and deployment of technical staff	2	2
Law enforcement		
Co-ordinate game guards and participate in law enforcement activities in the Protected Area/s;	2	2
Co-operate with national and international law enforcement agencies	X	2
Ensuring that judicial procedures are followed through according to the laws in the case of apprehended poachers;	X	2
Collate and analyse data on illegal activity and law enforcement within the Protected Area/s;	X	2

Enforce the approved legislation relevant to wildlife conservation.	2	2
Research and monitoring		
Identify research needs and priorities within the Protected Area/s;	2	2
Participate in formulation and monitoring of Limits to Acceptable Changes with respect to ecosystem/s integrity and biodiversity conservation	2	2
First aid		
a) Maintain an adequate first aid kit and administer when needed	2	2
Problem animal control		
a) Authorise and supervise Problem Animal Control (PAC) activities in and around the Protected Area/s when necessary;	X	2
b) Report on PAC activities to the Director	X	2
Administration		
a) Identify training needs and make recommendations for staff training;	X	2
b) Prepare quarterly and annual reports for submission to higher authorities	X	X
c) Plans for capacity building and career development of staff	X	2
d) Co-ordinate staff deployment, transfers, duty assignments and placements within the protected area/s;	**X**	2
e) Prepare annual work programmes and budgets;	X	2
f) Initiate staff welfare programmes;	X	2
g) Maintenance of confidential performance files on all staff	X	2

Table 6. Key recommendation by the previous Training Needs Assessments and an indication of whether the selected and visited colleges have incorporated them in their curricula

Recommendations	**BWTI**	**SAWC**	**MCFW**	**ZCBNRMC**	**CAWM**
Provision of regional workshops and seminars for middle level and senior wildlife managers	X	**X**	X	X	X
Outreach programmes related to wildlife management	**2**	**2**	**2**	**2**	**2**
Modular in-service courses associated with job descriptions of protected areas managers	**2**	**2**	**2**	**2**	**2**
Modular courses in administration and project management	**2**	**2**	**2**	**X**	**2**
Modular courses in business management, management of contracts, leases and concessions and ecological monitoring	X	X	**2**	X	X
Community based natural resources management (CBNRM);	**2**	**2**	**2**	**2**	**2**
Field skills and micro-administration by junior staff in law enforcement, visitor services, problem animal control, CBNRM and ecological monitoring	**2**	**2**	**2**	**2**	**2**
Technical services in procurement, maintenance of equipment, houses, roads, vehicles, water supply, etc.	**2**	**2**	**2**	**2**	**2**
Commercial operations;	X	X	**2**	X	X
Awareness of environmental issues, standards and practices for technical services, wildlife management	**2**	**2**	**2**	**2**	**2**
Wildlife management procedures for concessions (e.g., game ranching, conservancies);	X	X	X	X	X
Safari hunting	X	X	X	X	**2**
Wildlife based tourism at middle and senior management levels	**2**	**2**	**2**	**X**	**2**
Short courses and other informal training that confer credits, which in turn can be related to career progression for the individual workers	X	**X**	X	X	X
Wildlife related tourism (e.g., guides, hunters and camp managers)	**2**	X	X	X	**2**

Annex 4. People consulted

Botswana

1. J. Matlhare, Director Department of Wildlife and National Parks
2. K.C. Nkawank, principal, BWTI
3. G.K. Mangubuli, Deputy principal, BWTI
4. E. Gobramang senior lecturer, BWTI
5. D.K.K. Thatie, senior lecturer, BWTI
6. Daniel Mughogho, Senior Wildlife Biologist, Maun
7. Deborah Kahatano, USAID-RCSA

Malawi

1. H. Nzima, Deputy Director, Department of National Parks and Wildlife;
2. R. Jiah, Deputy Director, SADC Wildlife Technical Co-ordination Unit
3. S. Kainja, Assistant Director, Planning and Training, Forestry Department
4. T.C. Senganimalunje, Principal, College of Forestry and Wildlife (CFW);
5. H.M. Banda, Parks & Wildlife Officer (senior lecturer), CFW
6. A.M. Chirwa, Assistant Parks and Wildlife Officer (lecturer), CFW
7. F.J. Somanje, Assistant Parks and Wildlife Officer (lecturer), CFW
8. Steve Machira, USAID, Malawi;
9. Dr. James Banda, University of Malawi, Bunda College of Agriculture

South Africa

1) Fanie Greyling, Director, SAWC
2) Lyborn Mushasha, Training Manager, SAWC
3) Kathleen Hay, Short Course Manager, SAWC

Zambia

1. Mr. Hapenga Kabeta, Director General, Zawa, P/Bag 1, Chilanga, Zambia
2. Dr. Lewis Saiwana, Director, Wildlife Conservation and Management, P/Bag 1, Chilanga, Zambia
3. Dr. Dale Lewis, ZCBNRMC Technical Advisor, Nyamaluma, Box, 82, Mfuwe;
4. Mr. N. Tembo, Lecturer, ZCBNRMC, Nyamaluma, Box 82, Mfuwe

Tanzania

1. D M. Gamassa, Principal, CAWM
2. F.S. Manongi, Deputy Principal, CAWM
3. R.T. Mwaya, Lecturer and Chief Examination Officer, CAWM