

***AN INVESTIGATION INTO THE DEMAND FOR, COMPOSITION AND VIABILITY
OF A SPECIALISED MBA IN NATURE CONSERVATION MANAGEMENT***

**A RESEARCH REPORT
SUBMITTED IN FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE
MASTERS IN BUSINESS ADMINISTRATION
BY
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Abstract

This report reflects the results of and conclusions and recommendations arising from an investigation into the demand for, composition of and financial viability of a new, specialized, or niche MBA in Nature Conservation Management, to be offered by the Pietermaritzburg section of the University of KwaZulu-Natal Graduate School of Business.

The report finds that nature conservation, whilst almost universally recognized as a highly desirable, if not crucial element of government responsibility, is increasingly being expected to pay its own way.

This dichotomy is forcing nature conservation and protected area managers into a dual role encompassing both the science and practice of nature conservation and protected area management on the one hand and business management on the other, at least at the very highest levels of management.

It is submitted that the report provides clear evidence of the need for such a programme aimed at providing senior nature conservation and protected area managers with a suite of relevant business skills including financial management; resource economics; human resource management; project management; ecotourism development, marketing and management and the like.

Whilst the report ultimately recommends the implementation of the niche programme, it recognizes two concerns.

- **Given the very small pool of nature conservation professionals in the region and the chronic underfunding of nature conservation agencies, it is not certain that programme would, on its own, be financially viable.**
- **The reaccreditation process undertaken by the Department of Education has set back the university's MBA programme by several years and now is clearly not the time to attempt to launch a new offering.**

- **Declaration**

I, Nigel Hemming, hereby declare that this dissertation represents my own, original work; that all reference sources have been accurately reported and acknowledged and that this document has not previously, either in part or its entirety, been submitted to any university for the purposes of obtaining any credit towards any academic qualification.

Signed

Date

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List of Abbreviations

CAPE	Cape Action Plan for the Environment
CBD	Convention on Biodiversity
CEAD	Centre for Environment and Development (UKZNP)
CEC	Education & Communication Commission (IUCN)
CEL	Environmental & Law Commission (IUCN)
CHE	Council for Higher Education
CITES	Convention on International Trade in Endangered Species (UN)
CWII	Convention on Wetlands of International Importance (Ramsar)
DCF	Discounted cash flow
DEAT	Department of Environmental Affairs & Tourism (National)
DPP	Discounted payback period
EKZNW	Ezemvelo KZN Wildlife
EWT	Endangered Wildlife Trust
GAAP	Generally accepted accounting practice
GSLWP	Greater St Lucia Wetland Park
IRR	Internal rate of return
IUCN	International Union for the Conservation of Nature (now called the World Conservation Union)
KZN	KwaZulu-Natal
MBA	Master of Business Administration
MPB	Mpumalanga Parks Board
NCA	Nature conservation agency
NCMBA	MBA in Nature Conservation Management
NPB	Natal Parks Board
NPV	Net present value
NQF	National Qualifications Framework
PA	Protected area
PAM	Protected area manager
PFMA	Public Finance Management Act

RRR	Required rate of return
SADC	Southern African Development Community
SANP	South African National Parks (also SanParks)
SAQA	South African Qualifications Authority
SAWC	South African Wildlife College
THETA	Tourism, Hospitality & Sport Education & Training Authority
TKZN	Tourism KZN
TSA	Tourism South Africa
UDW	University of Durban-Westville
UKZN	University of KwaZulu-Natal
UN	University of Natal
UND	University of Natal – Durban
UNP	University of Natal - Pietermaritzburg
UNESCO	United Nations Education & Social Commission
WACC	Weighted average cost of capital
WCNCB	Western Cape Nature Conservation Board
WCPA	World Commission on Protected Areas (IUCN)
WSSD	World Summit on Sustainable Development
WPC	World Parks Congress
WTO	World Tourism Organisation
WWF	World Wildlife Fund
WWF-SA	World Wildlife Fund – South Africa

CHAPTER 1 INTRODUCTION

1.1 Background

In a world of rapid human population-growth and technological development, mankind is becoming increasingly aware of the impact that these factors are having on the natural world and its many ecosystems. At the same time, we are also becoming aware of the need to preserve these ecosystems, not only because they are “nice to have” and provide opportunities for an increasingly urbanized population to reconnect with nature (ecotourism), but because our very survival as a species may depend on it. We have no idea how much damage the world’s natural systems can sustain before they become irreversibly dysfunctional.

Historically, therefore, nature conservation took the form of identifying areas of great natural beauty or unique biodiversity (protected areas) and preserving them so that people who wished to could visit these areas for pleasure. More recently nature conservation is being seen as an essential component of man’s struggle for survival on the one hand and as an economic driver for tourism on the other. In direct conflict is man’s increasing need for new space for “development” to provide more and more food and economic activity to sustain this ever-growing population.

These changes are reflected in the fact that, throughout the world, nature conservation and protected area management have traditionally been carried out as low-priority, government responsibilities by field-trained, nature conservation professionals (game rangers) and biologists. Their focus has been almost entirely on the preservation of untransformed pockets of indigenous biodiversity within the borders of designated protected areas. This preservationist approach was seen as exclusive and/or elitist and has, since 1980 (IUCN Sustainable Use Home Page, no date, p1), been replaced by a more inclusive, “sustainable use” philosophy, based on the integration of the needs of biodiversity and ecosystem preservation as part of a strategy for the survival and well-being of mankind in general on the one hand and of local, often indigenous, communities who, under the preservationist model, had been excluded, usually by colonial

governments, from utilizing the natural resources on the other. A recommendation titled “Conservation of Wildlife through Wise Use as a Renewable Natural Resource” was adopted by the IUCN general assembly in Perth in 1990 (IUCN, *Sustainable Use Timeline*, no date, p1) and the Sustainable Use policy was formally adopted by the World Conservation Union (IUCN) at the 2nd World Conservation Congress in Amman, Jordan in 2000 (IUCN, *Sustainable Use Timeline*, no date, p1) and is described in its Sustainable Use Policy Brochure (IUCN, *Sustainable Use Homepage*, no date, p3).

As a consequence of this shift a number of frequently opposing forces have combined to change the dynamics of nature conservation practice in many parts of the world. These forces have tended to produce the following, simultaneous results:

- A decrease in the amount of government funding of nature conservation within and outside of protected areas,
- A heightened awareness of the importance of nature conservation *per se* as well as as a driver of tourism in general and ecotourism in particular; and
- The recognition of the need for nature conservation to stand on its own as a viable land-use option, with direct benefits for neighbour and/or displaced communities at least equal to the potential benefits deriving from non-conservation use. In other words, conservation has to be justifiable in terms of opportunity-cost theory.

This has meant that nature conservation agencies have, increasingly, had to re-invent themselves as viable and essential economic contributors and not merely as the custodians of pristine components of the environment. They have therefore been forced to adopt an increasingly strategic and economic management-style, for which most nature conservation professionals are not trained. Some nature conservation agencies have gone the route of appointing non-nature conservation professional people to head up their operations (e.g. SA National Parks (SANP); the Western Cape Nature Conservation Board (WCNCB) and the Mpumalanga Parks Board (MPB) (From personal knowledge). These organizations have thus recognized and responded to the need for strategic, business and financial leadership, but run the risk of losing touch with their core or central responsibility, which is biodiversity conservation.

1.2 Motivation

The motivation for this research stemmed from the writer's own experience of having served as a non-nature conservation professional executive director at Ezemvelo KwaZulu-Natal Wildlife (EKZNW), formerly the Natal Parks Board (NPB), where the writer became aware of these issues first-hand, as well as from my participation in the Masters in Business Administration (MBA) programme, where he saw the huge potential to fill an enormous knowledge-gap amongst his fellow, nature conservation professional executives up to and including the Chief Executive. In addition, the success of the MBA in Water Management offered by the School of Business at the former University of Natal Pietermaritzburg (UNP) highlighted the demand for and potential success of such specialised, niche products within the overall MBA programme.

It was as a result of an awareness of the conflicting pressures that the School of Business had recognized the potential value of a specialist MBA in Nature Conservation Management (NCMBA) programme, to be offered in parallel with its general and other specialist MBA programs. This research report seeks to identify the extent and sustainability of demand for such a program as well as to examine the ideal composition and financial viability thereof.

Specifically this research was motivated by the desire to test the hypothesis that there is a real and urgent need within the nature conservation "industry" in the region (southern and sub-Saharan Africa), for senior managers and executives who not only have a thorough grounding in and understanding of the very real and specific problems of biodiversity conservation, but who also have an appreciation of:

- Wider issues relating to the economics of the sustainable-use approach to biodiversity conservation;
- The development and marketing of eco-tourism and other natural resource products;
- Financial management in a changing funding, legislative and corporate governance environment;

- Human resource development and management within the framework of labour legislation, skills development and employment equity
- And who, lastly, have the skills and strategic vision to ensure the sustainability of nature conservation agencies (NCAs) and the protected areas (PAs) for which they are responsible, into the 21st century.

Interestingly, this was exactly the overriding theme of the 5th World Parks Congress held under the auspices of the World Commission on Protected Areas (WCPA) of the World Conservation Union (IUCN) in Durban in September 2003. (IUCN, *WCPA World Parks Congress Programme*, 2003, p1).

This research was also motivated by the belief that the Pietermaritzburg School of Business of the University of KwaZulu-Natal (UKZN) is uniquely equipped to present such a programme in partnership with the Centre for Environment and Development (CEAD), which is housed in the faculty of Agriculture and Science and which already offers a Masters program in Protected Area Management and EKZNW, based at Queen Elizabeth Park in Pietermaritzburg. This belief was reinforced by the identification, by the university in 2002, of conservation as one of four strategic initiatives in areas having potential for development in terms of research and education.

It seems reasonable that the combination of educators with business skills and expertise in all facets of financial management, accounting, marketing, human resource management, economics, strategic management and the like as well as in environmental development from the university, with the vast reservoir of hands-on experience and the human and other resources and facilities of EKZNW, would ensure a very well-rounded and relevant program.

1.3 Research objectives

- 1.3.1 The primary objective was to determine whether or not there is an identifiable need, within the nature conservation industry in the southern and sub-Saharan African region, for leaders (senior managers and executives) who have both a nature conservation professional and/or biological sciences primary

qualification as well as a combination of general business administration and leadership skills and highly focused understanding of the economics, financial and marketing aspects of nature conservation in the present paradigm, at a post-graduate level.

- 1.3.2 In addition, the research was aimed at distilling the exact nature of this combination of general and specific skills so that an appropriate program may be tailored for the specific needs of the industry.
- 1.3.3 Thirdly, the research attempted to identify the most acceptable and practicable mode or modes of delivery. This needed to include options such as full-time, block-release and part-time (evening) programs and had to take into account the vicissitudes of combining the most effective modes of delivery with the job responsibilities of senior managers, as well as the costs and effort of long-distance travel; the costs of board and lodging and the like.
- 1.3.4 Having identified the existence and nature of the need for such a product, the research then attempted to identify the extent and elasticity of the demand therefore in both the short and medium term in order to obtain an understanding of the sustainability of such a program.
- 1.3.5 The next objective of the research was to assess the financial viability of mounting and marketing the program. This entailed an examination of the costs involved, including the cost of obtaining skilled resources not currently available within the school, as well as of the extent and elasticity of demand and the willingness and ability of nature conservation agencies and/or their sponsors and donor-agencies to pay realistic market-related fees and amongst other things, identified the break-even level and returns on the basis of discounted cash flow (DCF) analysis.

- 1.3.6** Finally, if there was evidence of sufficient demand and financial viability, the report would make specific recommendations including a marketing strategy and action plans for the implementation thereof.

1.1. Contents and structure

The research report comprises the following chapters

1.1.1. Chapter 2 - Industry review

- 1.1.2.** In this chapter, the report explored the history and development of nature conservation practice and philosophy in general and the training and skills requirements of nature conservation agency managers in particular. It does so under the following headings:

1.1.2.1.Funding

1.1.2.2.Land use

1.1.2.3.International perspective

1.1.2.4.Legislation and policy framework

1.1.2.5.Education and training

1.1.3. Chapter 3 – Research methodology

- 1.1.3.1.** This chapter details the methodologies which were used for the collection of the responses and the processing and analyzing thereof as follows:

1.1.3.2. Needs assessment

1.1.3.3. Market assessment

1.1.3.4. Competitiveness assessment

1.1.3.5. Financial viability assessment

1.1.4. Chapter 4 – Research findings

Chapter 4 describes the findings of the above assessments under the same headings.

1.1.5. Chapter 5 – Conclusions

Chapter 5 examines and analyses the research findings as detailed in chapter 4, and attempts to synthesise them in such a way as to draw conclusions related the research objectives as identified in chapter 1.

1.1.6. Chapter 6 – Recommendations

Chapter 6 attempts to extrapolate the conclusions reached regarding the research objectives and to convert them into one or more specific recommendations, supported by more detailed action plans.

2. INDUSTRY REVIEW

In 1995 the writer was privileged to be able to combine a life-long interest in nature conservation and the outdoors with my training and experience as an accountant and administrator, when he was appointed as head of administration of the then NPB with overall responsibility for the finance, human resources, auxiliary services, technical services and information technology services. At that time the NPB was already in the process of merging with its KwaZulu counterpart, the Department of Nature Conservation to form a single, parastatal entity, now known as EKZNW to manage the nature conservation responsibility throughout the province of KwaZulu-Natal (KZN). During the writer's tenure (which ended in 2000), largely as a response to the forces described below, the organization was restructured and he was appointed head of commercial operations and later, head of ecotourism and marketing.

Not only were there major, largely political tensions around this merger but it soon became apparent that there were far wider tensions, some peculiar to South Africa in the aftermath of the colonial and apartheid eras, but others of a more global nature.

The major local tensions were those relating to the view that nature conservation had been (and continued to be) practiced for the benefit of animals, whites and foreign tourists at the expense of black, indigenous local communities. This tension was mirrored around the world and was a major driving-force in the change from a "protectionist" philosophy to a "sustainable-use" philosophy as reflected in the mission of the IUCN which is "to influence, encourage and assist societies throughout the world to conserve the integrity and diversity of nature and to ensure that any use of natural resources is equitable and ecologically sustainable" (IUCN, *About IUCN*, no date, p1). It also underlies Agenda 21, the agreement of the United Nations conference on Environment and Development held in Rio de Janeiro in 1992, and was reinforced at the World Summit on Sustainable Development (WSSD) in Johannesburg in 2002 (IUCN, *Sustainable Use Timeline*, no date, p1). It was exacerbated in South Africa by the land restitution process and the perception that the proclamation of protected areas had been

largely politically motivated as an apartheid-regime instrument to dispossess indigenous communities of their traditional land.

This climate of suspicion, together with the need to divert the bulk of government funding to social needs, such as health, education and welfare, led to a rapid decline (in real terms) in the allocation to nature conservation and the growth of the view that nature conservation must pay for itself. This too was a trend not peculiar to southern Africa, which was fuelled by the growing understanding of the value of tourism in general and eco-tourism in particular. (World Tourism Organisation, 1998, p3)

In these circumstances, the need for a shift in focus necessitated by these forces became apparent. The nature conservation professionals who made up the bulk of the executive of the NPB (and most other southern African nature conservation agencies at that time) were ill-equipped to respond to these shifts and were increasingly having to rely on non-nature conservation professionals specialists in the fields of law, finance, marketing, economics, tourism and the like, whose language they did not always understand and whose motives were often regarded with suspicion. This suspicion was fuelled by the fact that these specialists lacked a real understanding of the core functions of biodiversity conservation and the delicate nature of neighbour relations developed over more than 50 years at a grass-roots level, and often appeared to be hell-bent on hi-jacking the organization to some different agenda, or at least to a different set of priorities. (Personal observation and experience.)

These problems were aggravated by the rapid environmental changes brought about by the new democratic government and the adoption of the new constitution. These changes included a plethora of new legislation concerning labour relations, employment equity, skills development and the like, which, together with the HIV/Aids pandemic, created additional pressure on resources and the ability to identify priorities and maintain focus.

Whilst the NPB took the approach of appointing nature conservation professionals in the top positions, with non-conservation specialists in support roles, other organizations such as SANP (Mr Mavuso Msimang), the MPB (Mr Alan Gray – who was subsequently suspended as a result of his involvement in the “Dolphin” deal (Hammond, 2001) and the WCNCB (Mr David Daitz) chose to appoint management and finance specialists as Chief Executives, supported by nature conservation professionals. (Personal knowledge). Whilst both models have merit, the ideal must surely be the appointment of individuals, steeped in the ethos and science of nature conservation and protected area management who also have a good grasp of the key aspects of business administration, economics and marketing.

It is clear that the nature conservation sector in South and southern Africa is experiencing a number of opposing tensions which are severely straining its ability to continue to perform the vital role of biodiversity conservation both within and outside of formally protected areas. The two primary forces are both economic in nature, namely funding pressure and land-use pressures.

2.1 Funding

National and provincial governments in the region are being forced to devote more and more of their scarce financial resources towards primary social needs such as education, health and welfare services as well as infra-structural development. This pressure is likely to increase exponentially as the HIV/Aids epidemic intensifies. This is not to say that governments are not aware of the value of nature conservation. Levels of awareness of the need for and value of a clean, healthy environment and of protected areas have grown rapidly in recent times, but these are regarded as “nice-to-haves” rather than developmental *sine qua nons*. On the positive side there is a growing recognition of the power of tourism as an economic driver and the role of nature conservation and wildlife as a key component in tourism growth. The World Tourism Organisation (WTO) has recently released findings, in its Tourism 2020 Vision (Volume 1) Africa, that for every 8 foreign tourists, 1 job is created (WTO, 2001, p1). It has also been recently reported that South Africa was the world’s fastest growing tourist destination in 2001, with growth in

overseas tourist arrivals of 20.1%, largely on the back of its natural resources and climate (Tourism SA, 2003, p1).

Typically, the NPB, which, comparatively speaking was still well-funded in 2000, had suffered a decline in real terms of its state subsidy from the mid-90s. (Personal knowledge) This decline was not accompanied by reduced responsibilities, but rather an expectation that it would make up the shortfall from its own resources.

An extreme case, that was well-reported in the media at the time, was that of the MPB, formed in 1996, which was given 5 years (during which its subsidy would be reduced annually) to become totally self-sufficient. This unrealistic demand had disastrous consequences, which led to the suspension of its CEO and the dismissal of the responsible MPL and almost led to its collapse and in terms of which the provincial nature reserves were ostensibly “sold” as security for the raising of funds for their development. (Hammond, 2001)

2.2 Land-use

Closely associated with the above are pressures arising from the “hunger” for land from impoverished rural communities living near protected areas, to whom protected areas are seen as “their” land, confiscated from them for the “benefit” of the animals and/or “rich, white people” who can afford to enjoy them. Lack of education, job-opportunities and resources and the inevitable short-term perspective of people in such circumstances, generally prevents them from seeing or acknowledging the longer term and wider benefits of conservation as an alternative land-use.

There is thus increased pressure on governments and their nature conservation agencies to provide tangible proof and benefits, in the form of jobs, access to natural resources and/or other direct spin-offs, of the long-term value thereof and which will enable such communities not only to accept the continued existence thereof, but earn their active support and commitment.

The most telling example of this is the case of Lake St Lucia (now part of the Greater St Lucia Wetland Park (GSLWP)), which was subject to a heated and protracted battle (1989 – 1996) over the issue of the mining of its sand-dunes. The case was ultimately won and lost on the basis of the long-term economic values and job-creation potential of mining *vis a vis* conservation (i.e. ecotourism). Highly specialized resource-economists were able to prove that the conservation option would produce direct and indirect benefits way in excess of mining (Creemers et al, 1995, cited in Task Force on Economic Benefits of Protected Areas, 1998, p42). The decision went in favour of conservation and the park was subsequently declared a World Heritage Site by UNESCO in 1999. (UNESCO, no date, p45)

As a direct consequence, the World Bank has already provided some R90m from its Global Environmental Fund, for the development of infrastructure such as game fencing, roads and water supplies preliminary to the re-introduction of elephants and other big-five game species and the development and/or re-development of ecotourism facilities. To date some R720m has been spent on infrastructure (including the upgrading of the N2 and eight concessions have been awarded for the development (and re-development) of ecotourism facilities within the park, which will result in the investment of a further R432m (Enslin, 2003, p1)

The same arguments have been used and accepted in the settlement of a number of land claims in both the Kruger National Park (KNP) and GSLWP, in terms of which claimants have accepted development rights in, rather than restitution of land inside protected areas. (Lunsche, 2004, p24)

Governments and nature conservation agencies are thus increasingly being forced to make conservation “pay its way”, something which, ideally, it should never have to do because of its intrinsic importance to man’s long-term survival. This has necessitated a paradigm shift in the approach to the management of such protected area agencies and to much greater focus on the “products” thereof and their marketability. The primary product is ecotourism, which is increasingly being recognized as a major component of

tourism in the region and which, in turn, is gaining recognition as the single most powerful economic driver, with very effective conversion ratios. Other products include natural resources such as firewood, thatch and other grasses and reeds, which are often made available to neighbour communities at no cost, as well as live game, meat, hunting packages and the like which are sold on the open market. At its 2003 live game auction, for example, EKZNW hoped to exceed its previous record turnover of R21m. This surplus game is a direct product of good conservation management within a closed system. (EKZNW, 2003)

2.3 International perspective

These pressures, loosely grouped under the heading of sustainable-use, are gaining recognition world-wide. The global nature conservation body, the IUCN, with a membership which includes 74 state organizations, including the governments of Botswana, Kenya, South Africa, Swaziland, Zambia and Zimbabwe in this region has given clear recognition of the importance of these issues (IUCN, *IUCN Members*, no date, p1)

The IUCN's mission is "To influence, encourage and assist societies throughout the world to conserve the integrity and diversity of nature and to ensure that any use of natural resources is equitable and ecologically sustainable." and its vision is "A just world that values and conserves nature." (IUCN, *About IUCN*, no date, p1). To these ends it is divided into 6 commissions, including an Education & Communication Commission (CEC), an Environmental Law Commission (CEL) and a World Commission on Protected Areas (WCPA). (IUCN, *About IUCN*, no date, p2)

It should be noted that, whilst nature conservation is wider than protected area management, because nature conservation is practiced both inside and outside formally and informally protected areas, the core business of nature conservation is the management of protected areas. It is thus submitted that the issues which have been identified by the WCPA and which formed the basis of its deliberations at the 5th WPC in Durban are representative of issues facing the nature conservation sector.

The IUCN has identified a number of “themes” to which it devotes its attention via the various commissions. In addition to themes that are purely scientific or conservation oriented, others deal with economics and finance, education and communication, environmental law and protected areas. (IUCN, *About IUCN*, no date, p2)

The vision of the WCPA is “To promote the establishment and effective management of a worldwide, representative network of terrestrial and marine protected areas as an integral contribution to the IUCN mission.” (IUCN, *World Commission on Protected Areas*, no date, p1) The objectives of its programme include “To strengthen capacity and effectiveness of protected area managers through the provision of guidance, tools and information” (Ibid.)

In pursuit of this objective, the WCPA has, in association with the University of Cardiff, issued a series of best-practice Guidelines for Protected Area Managers, of which there are 8 to date, including guidelines on Economic Values of Protected Areas (number 2); Financing Protected Areas (number 5) and Sustainable Tourism in Protected Areas (number 8), which are specifically relevant to this report. Details of the contents of these three guidelines are as follows:

2.3.1 Guideline 2 - Economic Values of Protected Areas (Task Force on Economic Benefits, 1998) deals with the following topics:

- **Part I**
 - A new vision for protected areas
 - The global mandate for protected areas
 - The need for innovative approaches
 - The ‘client’ approach
 - Economic values of protected areas
 - A framework for valuing protected areas
 - Define the audience (i.e. the “market”)

- Determine the scope in terms of time, data, resources and institutional structure
 - Choose analytical technique
 - Conclusion
- Part II comprises a valuation study example and a number of case studies, including cases relating to:
 - Opportunity costs of protected areas
 - Willingness to pay
 - Benefit/cost analyses
 - Economic contribution of key conservation areas (GSLWP)
 - Financial benefits to local and regional economies
 - Effects of environmental quality on consumer demand

As described more fully in section 2.1 above, it was on the basis of a study of the economic benefits of the conservation of the GSLWP that the South African government, after protracted legal battles, eventually decided not to allow the mining of the sand dunes of lake St Lucia. Whilst it is not suggested that it is essential for protected area managers to become expert in resource economics, it is clearly an aspect of conservation of which they need a sound understanding.

2.3.2 Guideline 5 - Financing Protected Areas (Financing Protected Areas Taskforce, 2000) probably represents the most specific recognition for the need for the development of a new breed of nature conservation professionals, as it highlights the need for a business-approach to protected area management. It incorporates the following aspects:

- Part A - Developing a financial strategy
 - Protected areas and finance
 - A business approach to protected areas
 - Developing and financing a business
- Part B - Information on financing and funding sources and mechanisms
 - International sources of funding for protected areas

- National-level funding mechanisms
 - Site-level funding mechanisms
- Part C - Case studies
 - A national system of raising money for conservation in New Zealand
 - Contribution of ecotourism activities within EKZNW
 - Compensation for environmental services from mountain forests in Costa Rica

2.3.3 Guideline 8 - Sustainable Tourism in Protected Areas (Eagles et al, 2002) is also highly relevant, given the growing recognition of the value of tourism as an economic driver and its job-creation potential. This guideline deals with the following specifics:

- Tourism in protected areas
- Planning for protected area tourism
- Sensitive development of infrastructure and services
- Managing the challenges of tourism in protected areas
- Tools for visitor management
- The economics of tourism in protected areas
- Financial aspects of tourism in protected areas
- Human resource planning for tourism in protected areas
- Monitoring tourism in protected areas

Whilst there is very little other literature dealing with these issues, it is clear from the above guidelines that nature conservation professionals and the organizations that support them are becoming increasingly aware of the need for them to widen their focus considerably and for them to evolve from their traditional (ideal?) role as “game rangers” into a less comfortable, but more relevant role as “multi-faceted executives” with a sound basis in nature conservation principles and practice.

The belief that senior nature conservation and protected area managers require complementary, business administration skills is investigated in this report by means of

the two-phased needs analysis described in Chapter 3, the results of which are discussed in detail in Chapter 4.

2.4 Legislation and policy framework

Nature conservation in South Africa is not uniformly structured or implemented. At a national level it falls within the competency of the Department of Environment Affairs and Tourism (DEAT) (and is implemented at the protected area level by SANP, which is a parastatal body, responsible for the management of designated national parks and governed by a board appointed by the minister). Relevant legislation includes:

- Environmental Conservation Act of 1989
- Marine Living Resources Act 19 of 1998
- National Environmental Management Act 107 of 1998
- National Environmental Management – Biodiversity Act (2004)
- National Environmental Management – Protected Areas Act (2004)

Of these, the latter is of most relevance to nature conservation governance as it provides for the continued existence of SANP and defines and creates mechanisms for the declaration and management of four categories of protected areas:

- Special nature reserves
- National parks
- Nature reserves
- Limited development areas

It also provides for the cooperative governance of the system of protected areas across all three levels of government. (National Environmental Management: Protected Areas Act.) Interestingly and of concern to the nature conservation sector in South Africa, these categories do not coincide with the categories identified by the WCPA of the IUCN! (IUCN, *WCPA Programme on Protected Areas*, no date, p2)

At provincial level in SA, nature conservation generally falls under departments responsible for environmental matters. In some cases nature conservation is constituted as a separate sub-department and in others it is integral with environmental management.

This highlights another issue which clouds the development of clear governance models for conservation, namely the “green” (nature conservation) versus “brown” (pollution control) debate within the overall field of environmental management and sustainable-use/development.

Essentially there are two schools of thought regarding the relationship between environmental management and nature conservation. Some conservationists see the functions as distinct, but complementary, and believe that they should be managed cooperatively but independently by appropriately trained experts. The other view is that they are inextricably interdependent and should be managed holistically. The latter view tends to prevail in provinces which do not have major game parks or nature reserves and where it makes economic sense to manage both responsibilities within a common structure. (e.g. Limpopo and Gauteng). See also comment regarding the views of two respondents to the preliminary survey discussed in section 4.1.1 below.

To further confuse matters there is little uniformity in the environmental “bed-fellows” between provinces and these include tourism, agriculture, land affairs and so on. (See the needs analysis survey mailing list – Annexure 2.1)

In addition, the governance models differ, with some provinces opting for semi-autonomous “parastatal” bodies, along the lines of SANP (e.g. EKZNW, WCNCB and MPB), whilst all the remaining provinces have adopted the departmental model.

The trend towards the parastatal model has been fuelled by the need for conservation to pay its own way and hence to be able to operate on business-principles and charge and retain revenue. This was previously not possible in the departmental model, although the Public Finance Management Act of 1999, as amended, (PFMA) does provide for departments, in certain circumstances, to operate “trading accounts” and to retain the revenue derived therefrom. (Section 22 (1) (d) (i)). Other factors which have influenced the choice of the parastatal model have included the need for flexibility, rapid decision-making and legal personality as well as the benefits of having a non-executive board

made up of people with business, financial, legal and other special skills. This structure also facilitates borrowing capital for ecotourism development, entering into construction and other contracts including concessions and the like.

In line with worldwide trends, South Africa is proactively moving to better accounting and greater accountability in the public sector (both government departments and other public entities). These changes, largely embodied in the PFMA, include a shift from cash-based to accrual-based accounting and to financial reporting based on generally recognised accounting practice (GRAP). (Section 40 (1) (b)).

The act also provides for increased flexibility and autonomy, including the ability of government departments to conduct trading activities and to retain the revenue therefrom, but also fixes accountability and identifies financial officers and accounting officers and provides for severe penalties for any breach of its provisions. In the case of government departments the accounting officer is the responsible minister, whereas the boards of directors are the accounting officers for parastatal bodies. (Section 36).

Other legislation which impacts on nature conservation agencies and results in internal tensions and the need for clear, strategic management and identification of priorities include:

- Human resource management
 - Basic Conditions of Employment Act (1997)
 - Labour Relations Act (1995)
 - Skills Development Act (1998) & Skills Development Levies Act (1999)
 - Employment Equity Act (1998)
 - Occupational Health and Safety Act (1993)
- Financial management
 - Preferential Procurement Policy Framework Act (2000)
 - Public Finance Management Act (1999)
- Other aspects
 - Tourism Act (1993)

- **Promotion of Access to Public Information Act (2000)**

The need to respond to these pressures can perhaps best be illustrated by considering the current organizational structure of EKZNW (EKZNW, *Our organization*, no date, p1) as follows:

- **Conservation (further divided into 3 regions and including the game capture unit)**
- **Ecotourism and Marketing**
- **Conservation Partnerships and Projects**
- **Scientific Services**
- **Human Resources**
- **Finance**
- **Internal Audit**

This structure, in terms of which each function has a head reporting directly to the CEO and/or the Board, reflects the relative importance of those functions which are not “conservation related” and the need for the CEO to have an understanding of not only the conservation-related issues, but also of ecotourism and marketing, human resources, finance and corporate governance (internal audit).

As provided by Section 26 (1) of the National Environmental Management Act, South Africa (which is a member of the IUCN) is subject to a number of conventions and obligations, including:

- **Agenda 21 – the agreement on sustainable development reached at the United Nations’ Conference on Environment and Development held in Rio de Janeiro in 1992 (and followed up by the WSSD held in Johannesburg in 2002)**
- **CBD – the Convention on Biological Diversity drawn up at the United Nations Conference on Environment and Development (UNCED) in December 1993**
- **CWII – the Convention on Wetlands of International Importance, also known as the Ramsar convention held in Ramsar, Iran in 1971 and ratified by SA in 1975**
- **CITES – the UN Convention on the International Trade in Endangered Species agreed in Washington DC in 1975.**

(Department of Environmental Affairs and Tourism, no date, p3).

In addition, South Africa has applied for, and obtained, registration of a number of sites as World Heritage Sites by UNESCO in respect of biodiversity and culture. Amongst others, these include Cape Peninsula, uKhahlamba-Drakensberg Park and GSLWP (UNESCO, no date, p42).

2.5 Education and training

Apart from the guidelines developed by the WCPA, there appears to have been little or no response to these changes in terms of the education of nature conservation professionals and protected area managers, at least in South Africa.

In terms of the National Qualifications Framework (NQF) and South African Qualifications Association (SAQA) structures, nature conservation falls under the auspices of the conservation and guiding chamber of the Tourism, Hospitality & Sport Education & Training Authority (theta) (theta Tourism Hospitality & Sport Education & Training Authority, *Conservation and Guiding Chamber*, p1). The chamber is currently focusing on the development of skill equivalents and unit standards at the lower and mid-levels (field ranger, section-ranger, warden etc)) and has, thus far, paid little or no attention to the requirements of senior managers and executives. (Conversation with Clive Poultney, Manager C&G Chamber). Thus far, it has generated only two national certificate courses in nature conservation, namely:

- National Certificate in Conservation - Resource Guardianship (NQF level 2) (CSC02)
- National Certificate in Conservation – Natural Resource Manager (NQF level 5) (CSC05)

(theta Tourism, Hospitality & Sport Education and Training Authority. Conservation & Guiding Chamber))

Other than the above, nature conservation and protected area management education currently on offer ranges from:

- Up to NQF level 5

- SA Wildlife College (SAWC) (funded by the WWFSA and private sector operators;
- NQF level 5
 - National Certificate: Nature Conservation (Technikons)
 - National Higher Certificate: Nature Conservation (Technikons)
- NQF level 6
 - National Diploma: Nature Conservation (Technikons)
- NQF level 7
 - Bachelor of Technology: Nature Conservation (Technikons)
 - Bachelor of Science Honours: Wildlife Science (UKZNP)
 - Bachelor of Science Honours: Wildlife Management (University of Pretoria)
 - Bachelor of Agriculture Honours: Wildlife Management (University of the Free State)
- NQF level 8 and above
 - Master of Science: Environment and Development (Protected Area Management) (UKZNP)
 - Master of Science: Conservation Biology (University of Cape Town)
 - Master of Science: Conservation Ecology & Planning (University of Pretoria)
 - Master of Technology: Nature Conservation (Technikons)
 - Doctor of Technology: Nature Conservation (Technikons)

(SAQA)

Most of the above are primarily scientific/nature conservation oriented. Only the Master of Science: Environment & Development (Protected Area Management) offered by UKZNP appears to contain any emphasis on management issues “beyond the fence”, such as finance, marketing and economics. These issues are, however, covered as one part of a single module and this programme is very much aimed at field managers as against more senior managers and executives. The proposed NCMBA’s focus is almost entirely at an organizational or system level, rather than a protected area level.

Finally, with specific regard to the MBA degree itself, whilst there has been a proliferation of these offerings of bewildering proportions and quality of late in South Africa (Financial Mail, 2003, MBA Survey) the majority of these are traditional, general or mainstream MBAs. The School of Business in Pietermaritzburg is unique in its offering of a specialized MBA in Water Management and were it to go ahead and offer a similar programme with a Nature Conservation or Protected Area Management focus, it would have another unique product.

At one point it appeared that the MBA: Environmental Management offered by the University of Pretoria (University of Pretoria, no date) was closest in concept to the present proposal, but it had only four specialist modules, namely:

- Environmental paradigms
- Environmental governance
- Environmental analysis, assessment and modeling
- Strategic environmental management

The emphasis appeared, therefore, to be more on the environmental management aspects of business and industry rather than on the management of organizations with specific environmental/conservation responsibilities. However it now appears that UP may no longer offer this specialism as the university's Gordon Institute of Business Science website on 21 July 2004 did not include any of the above modules in its list of electives.

The broad objective of the WPC held in Durban in September 2003, was to "address the pressing issues, threats and opportunities for protected areas as we enter the 21st century" (IUCN, 2003, *WCPA World Parks Congress 2003 Programme*). There were several plenary sessions, which addressed:

- Benefits beyond boundaries
- Benefits to people/managing with change
- Community protected areas/working at scale

In addition there were a number of concurrent, cross-cutting workshop streams, which focused on narrower issues, such as:

- Developing the capacity to manage (capacity building)
- Building comprehensive protected area systems (gaps in the system)
- Building a secure financial future (finance and resources)
- Linkages in the landscape/seascape (linkages between protected areas and surroundings)
- Building broader support for protected areas (raising awareness and strengthening support)
- New ways of working together (governance)
- Maintaining protected areas for now and the future (management effectiveness)

The conference, which it must be noted, occurred after the carrying out of the research phase of this report, reached a number of conclusions and made a number of recommendations the objectives of which would undoubtedly be supported by the envisaged NCMBA programme.

The primary output of the conference was a document known as the Durban Accord which, inter alia, highlights the following issues relevant to this report:

- A New Paradigm for Protected Areas
 - In this changing world, we need a fresh and innovative approach to protected areas
- Cause for Concern
 - Many costs of protected areas are borne locally – particularly by poor communities – while benefits accrue globally and remain under-appreciated.
 - While conservation funds are promoted as available, they often prove inaccessible and are sometimes misdirected.
 - Perverse subsidies encourage overexploitation of resources in and around protected areas.

- Protected areas suffer an annual funding gap of \$25 billion, excluding additional resources required to expand protected area systems.
- Many protected area practitioners lack access to technology, knowledge, lessons learned and best practice models for effective and adaptive management.
- **Call for Commitment and Action**
 - To establish and strengthen policy, legal and institutional frameworks for protected area systems that are accountable and transparent.
 - To the mobilization of financial and technical resources to implement the African Protected Area Initiative and the African Protected Area Trust Fund.
 - To protected area management that strives to reduce and in no way exacerbates, poverty
 - To innovation in protected area management including adaptive, collaborative and co-management strategies.
 - To the provision of substantial additional financial, infrastructural and material resources for maintaining and enhancing protected area systems.
 - To economic valuation of protected areas in recognition of their significance to local, national and global economies so as to motivate increased investment and funding.
 - To innovative and diversified income generation strategies, thereby securing predictable financial returns for payment to the stewards of ecosystem goods and services.
 - To redirect perverse subsidies toward support mechanisms for protected areas.
 - To build capacity of protected area managers, including through cutting-edge information services and technology transfer.

(IUCN, 2003, *WPC Outputs*)

Of the 38 recommendations produced by the various workshop “streams” and approved by the conference in its final plenary session, the following have particular relevance for this report:

- **Strengthening the Institutional and Societal Capacities for Protected Area Management in the 21st Century** – prepared by the stream: Capacity Building: Developing the Capacity to Manage. In the preamble the point is made that “current management structures for protected areas were designed under different conditions and are not necessarily able to adapt to [these] new pressures. Conservation will only succeed if we can build learning institutions, organizations and networks and enable conservation practitioners to identify and solve their own problems and take advantage of opportunities”. It further states that “capacity development at the institutional and societal level must include establishing and supporting institutions with adequate resources to implement plans and strategies for protected area management”.

It recommends that

- “1. Governments, inter-governmental organizations, NGOs, local communities and civil society: (b) adjust current policies, laws, planning and management instruments and institutional frameworks, to increase capacity for protected area management at all levels, specifically: (iii) promote, coordinate and support systematic applied social, economic, political and biophysical scientific research ... and (ix) ensure that protected area management bodies... have the skills, knowledge and abilities to take on these responsibilities”. (IUCN, 2003, *WPC Outputs. Recommendation 5.01*, pp)
- **Strengthening Individual and Group Capacities for Protected Area Management in the 21st Century** - prepared by the stream: Capacity Building: Developing the Capacity to Manage. “Effective management of protected areas in the context of global change requires that managers, protected area staff.... And other stakeholders have the knowledge, skills, capabilities and tools to plan, manage and monitor protected areas.”

- It recommends that “1. IUCN and WCPA: (a) promotes and supports national and international collaborative capacity development activities through which stakeholders at all levels can acquire and share best practices; develop appropriate responses to change; and thereby enable and empower themselves to play their full role in protected area management ... (c) supports the enhancement of capacity for protected area managers and other stakeholders to work together by enhancing their skills in such areas as (i) facilitation, negotiation and conflict resolution; (ii) change management; (iii) participatory planning and joint management; and (iv) financial and institutional management”.
- It further recommends “That (4) IUCN and WCPA coordinate a consortium of international organizations, training institutions and other organizations to (a) develop and conduct campaigns for higher-level decision-makers to develop understanding that protected areas and the goods and services they provide are critical for the well-being of society as a whole; (b) encourage partnerships between training institutions, protected area agencies, ... for the design and implementation of responsive training; and (c) promote establishment and strengthening of regional networks of trainers and training institutions for capacity development in protected area management” (IUCN, 2003, *WPC Outputs. Recommendation 5.02*, pp)
- Financial Security for Protected Areas – prepared by the stream: Financing: Building a Secure Financial Future. “Protected areas deserve significant financial support owing to the tremendous benefits they provide.” It identifies a significant funding gap for protected areas and a number of policy and institutional obstacles, which hinder the flow of funds, including “(f) limited use of business planning at both protected area systems level as well as for specific protected areas”. It makes a number of recommendations to governments, national and international NGOs, international conventions, indigenous and local communities and civil society to:

- ... “(4) increase, diversify and stabilize the financial flows to protected areas...including through appropriate incentives and support for the implementation of diverse portfolios of financing mechanisms and cost-effective management approaches...;
- (5) ensure that there is proper valuation of the goods and services provided by protected areas...so that decisions about economic developments are made with the full understanding of the costs as well as the benefits...;
- (6) remove policy and institutional barriers to sustainable financing solutions.. and
- (13) focus greater attention on increasing the cost effectiveness of protected area financing through improved budgeting, financial planning”. (IUCN, 2003, *WPC Outputs. Recommendation 5.07*, pp)
- Private Sector Funding of Protected Areas – prepared by the stream: Financing: Building a Secure Financial Future - highlights the need for adequate, sustainable funding and the desire for involvement by the private sector and identifies barriers to their involvement. It also states “Further, protected areas system managers are generally not familiar with the most appropriate forms of private sector participation required to secure the long-term financial future of protected areas, or the business methods and priorities of the private sector”. It recommends
 - “1. That governments, national and international NGOs, local and indigenous communities, business and civil society: (e) foster, adopt and promote business planning, marketing and related techniques appropriate to the management of protected areas; (f) create business guidelines and standards for businesses that promote good governance and transparency and enhance the objectives of the protected areas”. (IUCN, 2003, *WPC Outputs. Recommendation 5.08*, pp)
- Tourism as a Vehicle for Conservation and Support of Protected Areas – prepared by the stream: Building Broader Support for Protected Areas -

identifies the potential of tourism to generate much-needed financial support for conservation as well as the risks of degradation through poor planning and over-exploitation. The preamble states "...visitation, recreation and tourism are a critical component of fostering support for parks and the conservation of biological and cultural heritage. Careful and strategic implementation of policy together with proactive and effective management of tourism is essential." It further states "There are many stakeholders concerned with protected areas and thus managers need resources and training to enable them to work effectively with different constituencies: including the tourism industry, local communities and visitors" (IUCN, *WPC Outputs. Recommendation 5.12*, pp)

- Good Governance of Protected Areas – prepared by the stream: Governance: New ways of Working Together. The preamble states "The degree to which protected areas meet conservation objectives, contribute to the well-being of society and achieve broad social, economic and environmental goals is closely related to the quality of their governance." Recommends that governments and civil society
 - "6. Encourage and improve the capacity of managers of protected areas to apply [the above] principles of good governance; and 7. Call on the Conference of the Parties to the Convention on Biological Diversity to address the matter of good governance in the programme of work for protected areas, in particular with regard to capacity building needs and exchanges of experience and lessons learned." (IUCN, 2003, *WPC Outputs. Recommendation 5.16*, pp)
- Recognising and Supporting a Diversity of Governance Types for Protected Areas – prepared by the stream: Governance: New ways of Working Together - identifies a range of possible governance models for protected area systems and urges the recognition, adoption and development thereof and in its recommendations
 - "4. Urges the Chairs of the IUCN's commissions to establish an inter-commission working group on protected area governanceto

advance a comprehensive programme of work including: (a) Research that supports, improves and evaluates the management effectiveness and the good governance attributes of all protected area governance types;...(c) compilation, analysis and sharing of relevant experiences and best practices to improve protected area governance; and (d) capacity building initiatives.” (IUCN, 2003, *WPC Outputs. Recommendation 5.17*, pp).

Whilst the report and recommendations do not specifically identify the need for an MBA or similar programme for nature conservation managers, it is clear that many of the issues which are of concern to delegates could be incorporated into such a programme and there is clearly much scope for research in aspects such as strategic management, governance models; legal, policy and institutional frameworks; funding and financial management; marketing; tourism planning and development; resource economics and the like.

It is clear that nature conservationists and protected area managers of the future will have to be much more multi-faceted and rounded and will have to develop the capacity to think and respond beyond the fence. It is submitted that a specialist post-graduate business programme could play a significant role in the development of such managers.

CHAPTER 3 RESEARCH METHODOLOGY

This chapter details the methods used to carry out the primary research which was considered necessary to be able to satisfy the research objectives. The research has been carried out in four areas, namely:

- Needs assessment to establish the nature and extent of the demand for the proposed NC MBA.
- Market assessment to determine the nature and attractiveness of the broad market for general and specialized MBA programmes.
- Competitiveness assessment to assess the strengths and weaknesses of UKZNP and the proposed programme in relation to existing and potential competitors.
- Financial viability assessment to assess the financial viability of the proposed NC MBA.

3.1 Needs assessment

This research area concentrated on obtaining an understanding of the nature and level of demand for the proposed MBA programme. It took the form of two surveys. A preliminary survey aimed at getting broad, qualitative, feedback concerning the response to and general direction of such a programme and a detailed needs analysis aimed at obtaining more specific, quantitative responses concerning actual demand.

3.1.1 Preliminary survey

In the first instance the research was aimed at confirming the writer's perception of the relevant issues and the need for a specialized MBA in nature conservation as expressed in the previous chapter as well as to obtain feedback concerning the level and structure of such a programme.

The first phase involved the sending out of a letter (Annexure 1.2) and position paper explaining the School of Business's beliefs about the need for the proposed programme (Annexure 1.3) to a carefully chosen list of some 29 senior managers and executives of government and private sector nature conservation agencies and NGOs. (Annexure 1.1).

The individuals making up the sample were selected, in consultation with Dr George Hughes, former CEO of EKZNW and nature conservationist of international repute (and an enthusiastic supporter of the proposed programme), on the basis of their own long service, influence and importance in the nature conservation sector and/or the size and importance of the organizations which they represented. Many of them were known to the writer, either personally or by reputation. The sample was in no way intended to be fully representative and was merely intended to present a sounding-board against which to test our proposal.

The mailing included a brief questionnaire (Annexure 1.4) aimed at obtaining a sense of the extent to which such a programme was perceived to be of value and relevance as well as its composition. Where possible responses were obtained by means of face-to-face or telephone interview, but in most instances written (or e-mail) responses were received.

Interviewees were asked to provide the following information/responses:

- *Personal*
 - *Name*
 - *Position and years in this position*
 - *Years with the organization and in nature conservation*
 - *Qualifications*

These questions were designed to verify the relevance of the respondents' opinions as high-ranking, highly qualified individuals representing significant nature conservation oriented organizations.

- *Organisation*
 - *Name*
 - *Category (Government department, NGO or private sector)*
 - *Main field of activity*

These questions, similarly, were designed to enable the categorization (between both type of organization and nature conservation involvement) and weighting of the responses.

- *Nature conservation training and development needs*
 - *Identify top 5 requirements for senior nature conservation agency managers/executives under the headings "Functional area" and "Requirement".*

This question was intended to elicit responses which would assist in the identification of the specific training and development needs of senior nature conservation agency officials. These responses would inform the design of the specialist and/or elective modules to be offered under the proposed programme.

- *Rank the following proposed specialized fields of study*
 - *Strategic management*
 - *Economics and sustainable funding*
 - *Environmental law and policy framework*
 - *Governance and financial management*
 - *Development, marketing and management of ecotourism*
 - *Other(specify)*

This question was intended to present the respondents with a set of potential modules and required them to rank them. Whilst there was scope for overlap between this question and the previous one, this question has the value of being quantifiable.

- *Rating of the importance of the MBA qualification*
 - *In commerce and industry*
 - *In a nature conservation agency*

This question was designed to get a feeling for the extent to which the respondents regarded an MBA qualification as important for individuals in commerce and industry on the one hand and in nature conservation on the other hand. The question assesses the attitude to the MBA in general as well as to the novel concept of an MBA in the nature conservation sector, previously dominated by biologists and protected area managers.

- *Identify any other qualification(s) of equal or greater value for senior nature conservation agency officials*

This question was designed to identify competitive (or potentially competitive) products and institutions known to the respondents. This information would be used in carrying out the market and competitiveness assessments discussed later in this chapter.

A summary and detailed analysis of the results of this preliminary survey is set out in chapter 4, below.

3.1.2 Detailed needs analysis

Following analysis of the responses to the preliminary investigation, the second phase of the demand assessment entailed the preparation of a much more detailed and specific questionnaire, which sought to obtain detailed, quantifiable information about the nature and elasticity of demand for the proposed programme, the specific modules to be included or excluded, the preferred mode(s) of delivery and the willingness and ability of respondents to pay. (Copies of the mailing list, covering letter and position paper/questionnaire are attached as Annexures 2.1, 2.2 and 2.3)

This questionnaire was addressed to the Training and Development Managers of 34 of the major nature conservation agencies and NGOs in the region (A copy of the mailing list is attached as Annexure 2.1).

An attempt was made to obtain a complete list of all significant nature conservation organizations for inclusion in the survey. The basis for this was a synthesis of my own mailing list, built up during the writer's tenure at EKZNW, as well as additional lists obtained from Dr George Hughes (former CEO of EKZNW), Mr Khulani Mkhize (current CEO of EKZNW) and Mr Clive Poultney (manager of the Conservation and Guiding Chamber of Theta). This list was supplemented by details of provincial conservation departments and/or parastatals obtained from the government websites of

South Africa as well as Angola, Botswana, Lesotho, Mozambique, Namibia, Zimbabwe and Zambia. In some cases no contact details or other information was available.

Copies of the covering letter (Annexure 2.2) and position paper/questionnaire (Annexure 3.3) are attached. The questionnaire required respondents to answer a number of specific questions, designed to obtain quantifiable data concerning the organization, its workforce, training budget, demand for and perception of the relative importance of the proposed specialized fields of study, as follows:

- *Organization*
 - *Name*
 - *Constitution*
 - *Nature conservation responsibilities and objectives*
 - *Number and total area of protected areas managed*
 - *Size of organization in terms of personnel – in the following grades*
 - *Executives*
 - *Senior managers*
 - *Managers*
 - *Supervisors*
 - *Other personnel*

These questions were designed to permit the responses to be categorized in terms of the type of organization as well as by the nature of its activities, number and size of protected areas managed and numbers and grades of its staff.

- *Utilisation & demand*
 - *Current and future training & development budget (and proportion allocated to executive development)*
 - *Expected current and future utilization of proposed MBA in nature conservation management (and sensitivity to price increase (+100%) or decrease (-50%))*

These questions were designed to obtain information about the actual (and projected) executive training budgets of respondent organizations as well as an indication of the

proportion thereof which might be directed towards the proposed programme and the sensitivity of the latter to fluctuations in price (elasticity of demand).

- *Admission requirements*

- *Analysis of qualifications of personnel as per above gradings by*
 - *Masters degree or higher*
 - *Bachelors degree or equivalent*
 - *National diploma*
 - *No tertiary qualification*

This question was aimed at enabling the quantification of the potential market by identifying the extent of personnel already holding masters degrees or higher (unlikely to be seeking further qualification) as compared with those holding bachelors degrees who would be more likely to seek higher qualifications.

This information could also be cross-referenced to the ranks, permitting the identification of the pool of individuals who are already managers or senior managers and who also lack masters degrees or higher.

- *Delivery mode preference*

- *Part-time*
- *Block release*
- *Full-time*
- *Other*

This question simply attempted to obtain an indication of the most desirable delivery mode(s).

- *Ranking of proposed NCMBA advanced modules*

- *Strategic management of nature conservation agencies*
- *Economics and sustainable funding of nature conservation*
- *Environmental law and policy framework*
- *Governance and financial management in the public sector*

- *Development, marketing and management of ecotourism and other natural resources*
- *Project management*
- *Public-private partnerships (communities and conservation)*
- *Land restitution and nature conservation*
- *Landscape and community-level conservation*
- *Other (specify)*

This question asked respondents to rank the possible specialist modules in order of priority, thus permitting the rankings to be combined and an overall ranking to be obtained. It should be noted that the list of modules is not exactly the same as those in the preliminary survey as the responses to that survey were taken into consideration in the drafting of this questionnaire.

- *Identification of other, equivalent qualifications and institution*

As with the first survey, this question was designed to try and identify any directly competitive products and/or institutions, which could be included in the market and competitiveness assessments described below,

- *Other comment*

Finally, respondents were given the opportunity to present their own (possibly personal) comments regarding the proposed programme. This was intended to disclose any issues which had perhaps been overlooked and which could, if warranted, be further investigated.

Whilst the preliminary survey was designed to produce mainly qualitative results, this detailed needs assessment was designed to generate largely quantitative results, with the intention of performing some degree of statistical analysis thereon. In essence, it represents a “buyers’ intention survey” as discussed in section 3.2.2.3 below. The survey results are summarized and analysed in chapter 4, below.

3.2 Market assessment

One of the research objectives was the preparation of a marketing strategy for the proposed programme. Lambin (2000) provides a framework for the development of a market-driven strategy for the launch of a new product. He suggests that it is necessary to carry out an assessment of the market by firstly performing a needs analysis through market segmentation (see 3.2.1 below) and then a market attractiveness analysis (3.2.2). Thereafter, Lambin recommends the performance of a competitiveness analysis. This is dealt with under section 3.3 below. Cognisance was given to all of these issues in the evaluation of research findings dealt with in chapter 4, below.

3.2.1 Market segmentation analysis

According to Lambin (2000, p242), in identifying and analyzing the relevant target market segment, we need to answer the following function-performed questions:

3.2.1.1 What business are we in?

To understand the business we are in (or wish to be in), we must firstly identify the solution we are proposing to provide.

3.2.1.2 Who are our customers?

We can more clearly identify the reference market (market segment) by asking who our customers will be.

3.2.1.3 What product are we offering?

We can understand the market by asking what form the product or service will take.

3.2.1.4 How will we deliver the product?

This question allows us to identify the technology by examining how we will deliver the service?

3.2.2 Market attractiveness analysis

Lambin (2000, p292) points out that the attractiveness of a market into which to launch a new product may be gauged by assessing the market potential, based on some estimate of the difference between current demand and potential demand and by careful consideration of the product life-cycle. Specifically, Lambin identifies the following aspects for analysis:

3.2.2.1 Market potential

In order to determine the demand potential of a given market, one needs to understand the nature of the market and the determinants and structure of demand for the product or service. This requires a consideration of the existence of any gap between current and absolute market potential (Lambin, 2000, p294). Growth opportunity analysis requires that the gap be further analysed as to its nature. Lambin (2000, p309) identifies three broad categories:

- Distribution gaps which result from “inadequate distribution within the product market”.
- Usage gaps which result from “insufficient use of the product by potential users”.
- Product line gaps which result from “an unfilled gap in the product line”. Lambin (2000, p310) identifies seven possible causes of which the seventh, segment-related product-line gap is of most relevance to this research.

3.2.2.2 Product life-cycle

The second major aspect of the assessment of market attractiveness as suggested by Lambin (2000, p311) is a consideration of the product life-cycle and/or the brand life-cycle. This is valuable as an understanding of the product life-cycle stage will give insight into the market potential and will also inform the marketing strategy, which may differ depending on the life-cycle stage. The life-cycle stages are, briefly, identified as follows (Lambin, 2000, pp315 to 319):

- Introductory phase – market is usually characterized by slow growth as a result of various (external) environmental factors.

- **Growth phase** – this follows successful completion of the introductory phase and is characterized by accelerated growth.
- **Shake-out phase** – market is nearing maturity and is still growing, but less rapidly. Weaker competitors begin to drop out. Market becomes more concentrated and the environment begins to change.
- **Maturity phase** – demand stabilizes and coverage is intensive. Market becomes highly segmented and technologically advanced.
- **Decline phase** – structural decrease in total demand as a result of changing tastes and/or new, more advanced products which fulfill the same function.

3.2.2.3 Demand measurement

Lastly, Lambin (2000, pp325 to 338) discusses a number of demand measurement techniques. Demand measurement is the attempted quantification of market potential. Lambin (2000, p326) proposes a two-dimensional matrix where the first dimension represents the extent to which the method used is subjective or objective (i.e. this dimension opposes qualitative versus quantitative methods), whilst the second dimension represents the use of analytic or heuristic methods (i.e. it opposes extrapolative versus explanatory methods).

The methodology selected in this instance is the buyers' intention survey, which is a subjective but reasonably analytical method (Lambin, 2000, p328). Its value, however, is directly proportional to the number of responses received, relative to the total population. In addition, it is critical that the respondents are either the decision-makers or are in a position to predict their organisation's likely demand for the product.

In order to be able to quantify likely demand and to gauge willingness (and ability) to spend, respondents were asked to indicate

- the level of their organisation's current and future training budgets and to indicate the percentage thereof earmarked for executive development;
- A breakdown of the current qualification levels of their staff, by grade, and;

- The numbers of people their organization would be likely to enroll in the programme immediately as well as annually thereafter.

3.3 Competitiveness assessment

According to Lambin (2000, p341), competitiveness assessment is the process of determining whether or not the organization can obtain (and sustain) any competitive advantage and if so by what competitive strategy or strategies. In order to do this it is necessary, firstly to determine the nature and structure of the competitive environment and secondly to consider the nature and strength of the forces, which are at work in that market. Finally, by combining our understanding of the market attractiveness and competitiveness, it will be possible to identify the specific strategies, which will be aimed at securing the competitive advantage.

3.3.1 Competitive environment

It is important in the first instance to understand the type of market environment to be entered as this can assist in identifying the potential source(s) of competitive advantage based on market power. Lambin (2000, pp351 to 365) identifies the following generally accepted models:

- Pure or perfect competition, characterized by
 - Large numbers of sellers & buyers
 - Undifferentiated & perfectly substitutable products
 - Complete absence of market power for any player
- Oligopoly – characterized by
 - Few firms (or few dominant firms)
 - Firms are highly interdependent
 - May be differentiated or undifferentiated
- Imperfect or monopolistic competition
 - Falls between monopoly and perfect competition
 - Many competitors with equal market power
 - Highly differentiated
- Monopoly

- Single large producer
- Many buyers

3.3.2 Market forces

Porter developed his well-known Five Forces model of competitive market forces in 1979. (Porter, 1979) This model identifies five role-players who can exert influence and may threaten a firm's competitive advantage, namely:

- Buyers
- Suppliers
- Substitutes
- New entrants
- Competitors

By assessing the threats and opportunities presented by these “forces” it is possible to identify other sources of competitive advantage arising from:

- Quality advantage
- Cost advantage
- Unique core competencies

According to Lambin (2000, p345), one must make a distinction between:

- Operational advantages, which arise from performing similar activities better than competitors and
- Strategic advantages, which arise from differentiation in the form of either performing different activities or the same activities in a different way from competitors.

3.4 Financial viability assessment

The final aspect of the research involved the performance of a financial viability assessment using generally accepted capital investment appraisal techniques.

The final determinant of whether or not to proceed with the launch of a proposed new product is whether or not it is financially viable. Financial viability may be measured in a number of ways, the simplest of which is whether or not it is profitable (in accounting

terms) over a defined period. The weaknesses of accounting profit as a basis for assessing financial viability are that it ignores the time-value of money in the first instance and does not represent the actual flow of funds (cash) in the second (Damodaran, 1997, p36).

The preferred method of assessing financial viability is therefore one, which is based on discounted cash flows (DCF) over a defined period. This technique not only takes the time-value of money into account (through the use of an appropriate discount rate) but also enables alternative projects with different cash flow patterns and/or life-spans to be compared (Damodaran, 1997, p37).

The financial viability of a project is expressed by one or a combination of the project's net present value (NPV), internal rate of return (IRR), or discounted payback period (DPP). These measures may be defined as follows:

- NPV – The net present value of a project represents the net value of all the projected negative and positive cash flows over the period expressed in current terms. (Damodaran, 1997, p176) As the “hurdle rate” or required rate of return (RRR) is used as the discount rate, any positive result indicates the project will deliver a better rate of return than the required rate. A zero result indicates the required rate is achieved and is also, therefore, “positive”. If only one project is under consideration a positive NPV is a “go” signal. If several, alternative projects are being considered the project with the highest NPV should normally be undertaken first.
- RRR – Required rate of return (or hurdle rate), is the minimum acceptable return to be delivered by the project, failing which, the investor will seek alternative investments. It is made up of the investor's weighted average cost of capital (WACC) plus a premium commensurate with the perceived degree of risk. (Damodaran, 1997, p179)
- IRR – The internal rate of return represents the actual rate (%) of return of the project and is calculated as that rate at which the NPV is zero. (Damodaran, 1997, p181) This measure is easier to interpret than NPV as it is more intuitive. As

long as the actual return (IRR) is higher than the required return (RRR) the project is obviously worth doing. If several projects are being compared, the one with the highest IRR is the most attractive. Unlike NPV, however, the IRR doesn't eliminate the need to consider other factors, such as the total investment required and the payback period.

- DPP – By expressing the cumulative net cash flow of each period in terms of today's values, the discounted payback period indicates how long it will be before the project breaks even and starts to accumulate cash. This is a useful additional tool to differentiate projects which have similar NPVs or IRRs. (Damodaran, 1997, p176)

As there was only a single project under consideration, we did not need to be concerned with any "tie-breaker" techniques. The financial viability was therefore assessed on the basis of its likely NPV under a number of scenarios reflecting different key assumptions, although the IRR and DPP were also considered.

The DCF technique required that cash flows from expected revenue and expenditure (both capital and current) over the period of the project were estimated. Revenue is easily determined by multiplying the expected level of demand by the appropriate fees. Thereafter, the probability of worst-case, best-case and most-likely case demand can be estimated. A detailed projection was then prepared for each of the three scenarios and the resulting net cash flows discounted at the RRR. Finally the decision to proceed was based on a consideration of the results of all three projections. If all were positive, the project would unequivocally be viable. Otherwise it would be necessary to resort to a degree of "gut-feel" in terms of confidence in the results.

The details of this aspect of the research and the results thereof are set out in chapter 4 below.

3.5 Limitations of study

It needs to be recognized that because of the relatively recent development and multi-disciplinary nature of the nature conservation industry and the resulting lack of a body of literature dealing with the many new issues, this study is necessarily somewhat limited and subjective.

As explained in the relevant sections, the sample sizes of the two surveys were so small and the information sought generally so qualitative that it was not considered useful to attempt to perform any detailed statistical analysis thereof, in order to produce objective evidence to prove the existence (and extent) of demand.

Whilst the financial viability assessment was based on sound principles of financial theory, by its nature it is based on assumptions and subjective estimates and is thus open to interpretation and judgement.

The strongest evidence of the need for this type of programme (and for the specific modules to be included) comes from the industry itself as articulated in its deliberations at the recent 5th World Parks Congress and the recommendations adopted. These are discussed in detail in section 2.3 above.

Despite these limitations, it is submitted that the study is soundly based and reliable and that its findings, though more qualitative than quantitative are empirically accurate.

CHAPTER 4 RESEARCH FINDINGS

This chapter examines the results of the needs assessment surveys, attempts to answer the questions raised concerning the market and competitiveness assessments described in chapter 3 and finally examines the financial viability of the proposed programme.

4.1 Needs assessment

4.1.1 Preliminary survey

In order to obtain an understanding of the perception of the industry to the proposed NCMB, the opinions of a number of key individuals were canvassed by means of e-mail and telephonic interview (see Annexure 1).

The sample comprised CEOs and/or senior executives of 29 national and provincial nature conservation agencies, NGOs, research institutes and private sector operators. The selection criteria are discussed in section 3.1.1 above. The complete mailing list is attached as Annexure 1.1.

Responses were obtained from 12 out of the 29 individuals sampled (a 41% response rate) in the form of fax, e-mail, telephone and face-to-face responses, all of which were very positive. It should be noted that in some instances responses were not received where individuals were no longer employed by the organizations listed. A summary of the completed responses is attached as Annexure 1.5.

Broadly-speaking the responses were overwhelmingly in support of the proposed programme and confirmed our beliefs about the need and composition of the programme.

Respondents were mainly senior people with a combined nature conservation experience of 162 (average 13.5) years. They had been in their present positions for 66.1 (average 5.5) years and with their organizations for 75.4 (average 6.3) years. Nine (75%) were holders of post-graduate qualifications. It is disappointing to note that all but one of the responses were from NGOs and other organizations rather than the nature conservation agencies themselves, although it can be assumed that EKZNW did not respond because

of their previously stated commitment and partnership. In this regard a meeting occurred with the EKZNW Training and Development manager and with the chairman of the KZN Conservation Trust to discuss their specific requirements and the Trust's intention to provide bursary funding for the program.

The survey revealed an average prioritization of the specialist fields identified in table 4.1 below:

Module/ranking	1	2	3	4	5	WA
Strategic management of NCAs	75%	8%	8%	8%	0%	44.7%
Economics & sustainable funding of NCAs	25%	33%	33%	8%	0%	37.2%
Environmental law & policy framework	8%	8%	25%	17%	42%	22.3%
Governance & financial management of NCAs	0%	33%	8%	33%	25%	24.7%
Development, marketing & management of ecotourism & other natural resources	0%	17%	25%	33%	25%	23.4%

Table 4.1 Ranking of proposed fields of specialization (WA refers to the weighted average ranking of each module)

In addition, respondents identified the following specific fields as being necessary for the development of effective senior NCA managers. The first column identifies the broad category of skills identified and the second the number of times mentioned by the 12 respondents. Column 3 indicates the relevant 1st year modules already incorporated into the PGDip programme and column 4 identifies relevant existing or proposed modules to be offered in the 2nd year MBA programme. Modules highlighted in **blue** represent modules which would need to be developed for the NCMBA, whilst those highlighted in **yellow** are modules already offered by the CEAD. Un-highlighted modules are those which are already offered within the current MBA programmes.

Skill	No of times	Year 1 module	Year 2 module
Tourism development	7	N/A	Development, marketing &

			management of ecotourism and other natural resources
Human resource management/labour law	6	HRM and labour law	Advanced HRM
Marketing, PR and communication	5	Marketing management	Development, marketing & management of ecotourism & other natural resources
Financial management	4	Financial management	Governance & financial management of NCAs
Business practice	4	Business environment	N/A
Economics (resource) & sustainable use	4	Economics	Economics & sustainable funding of NCAs
Strategic planning & leadership	3	N/A	Strategic management of NCAs
Biodiversity conservation & natural sciences	3	N/A (primary qualification)	N/A
Population & landscape-level conservation	3	N/A	Land-use & nature conservation (PAM)
Conservation planning & PAM	2	N/A	Protected area management
Social sciences	2	Organisational behaviour	N/A
Project management	2	N/A	Project management
Land reform process	1	N/A	Land-use & nature conservation (PAM)
Operational	1	Operations	N/A

management		management	
Government & legislation	1	Legal environment & business law	Environmental law & policy framework

Table 4.2 Broad skill areas identified by respondents and their incorporation into the NCMBA programme

It is clear from this table that all of the requirements identified can be met, either from modules already on offer as part of the programme or from other programmes within the university or by proposed additional modules.

On a scale of 1 (not valuable) to 5 (extremely valuable) respondents rated a specialized MBA for executives in the nature conservation sector at 4.08, whilst they rated an MBA for executives in commerce and industry only marginally higher at 4.58. This suggests that, overall, the proposed MBA was rated as being very valuable.

Finally, respondents were invited to offer any additional comments regarding the proposal. Most of these were of a generally supportive, but unremarkable nature. However, two respondents (David Daitz, CEO of the WCNCB and Mike Bridgeford, CEO of the EWT) both of whom hold MBAs and are not nature conservation professionals, expressed the view that a general MBA would suffice and that there was thus no need for a specialized MBA. Mr. Bridgeford also expressed a concern at the value of an MBA as compared with several years of practical business experience. Whilst this concern is undoubtedly valid, an MBA is specifically aimed at equipping specialists with skills and knowledge which can otherwise only be acquired through long years of experience.

In addition Dr John Scotcher (Environmental Manager, Sappi) and Dr Greg Knill (Chief Director: Environment, Limpopo province) expressed the view that nature conservation was perhaps too narrow a field and that the university should consider broadening its offering to encompass environmental management. This view is relevant to the discussion of the separation (or not) of the nature conservation function from that of environmental management in Chapter 2. For the purposes of this research it is felt that

this is a view which should be noted, but it should also be noted that there is a danger in trying to be “all things to all people”. There is a counter argument that nature conservation is itself too broad and that consideration should be given to offering an MBA in protected area management. This argument is certainly borne out by the focus of the WCPA and the proceedings of the Durban WPC, discussed in chapter 2 above.

On balance, it was clear from this initial survey that there is considerable interest in and need for the proposed program, with a number of individuals expressing immediate interest. The proposed programme appears to be largely in line with the needs of the sector and the results certainly justified proceeding to phase 2 of the investigation.

4.1.2 Needs analysis survey and demand estimation

The survey questionnaire (Annexure 2.3), together with covering letter (Annexure 2.2) were posted to the Training and Development managers of 34 national and provincial nature conservation agencies and related NGOs throughout the SADC region. (The mailing list is attached as Annexure 2.1). See section 3.1.2 for explanation of the selection criteria.

The questionnaires were sent out during December 2002, with a request that they be returned by 15 January 2003. This timing was unfortunate, but was a function of the relatively slow rate of responses to the preliminary survey. Reminders were addressed to the chief executive officers of those organizations that had not responded by the date requested and several more responses were received as a direct result.

The response to this survey was very disappointing, given the highly selective “sample” and the relevance of the subject matter to their area of responsibility, although well within normal levels. Only 7 (20.5%) completed questionnaires were received from 4 nature conservation agencies and 3 NGOs. The responses were collated into an Excel spreadsheet and analysed in order to assess the nature, extent and elasticity of demand, as well as the willingness and ability of respondents to pay. A detailed summary of the responses is attached as Annexure 2.4.

The small size of the sample and the fact that one or two of the responses were incomplete or not as required meant that any detailed statistical analysis was pointless. The data were fed into an SPSS file but the results were not statistically meaningful.

Briefly, the responses can be summarized as follows:

- Constitution and objectives and NC responsibilities of organization (questions 2.2 to 2.4)

The respondents included the state/provincial nature conservation agencies of Limpopo, Gauteng and KwaZulu-Natal provinces in South Africa and of Namibia with collective responsibility for 188 protected areas covering in excess of 11 million hectares. In addition, responses were received from the EWT, WWFSA and the Green Trust, which are all South African-based NGOs whose primary concern is the funding of nature conservation activities and projects.

- Size of organization (question 2.5)

In total the responding organisations employ 5,630 staff, of whom 47 (0.63%) are classified as executives and a further 71 (1.26%) as senior managers.

- Training & development expenditure (question 3.1)

The collective future annual training budget exceeds R5.4m, of which 10% to 25% (R.5m to R1.35m) is earmarked for executive development.

- Demand for the NC MBA (question 3.2)

Initial demand for the programme is for 8 individuals, rising to 11 to 14 per annum thereafter. These numbers are almost unaffected by increases (of 100%) or decreases (of 50%) in the fee structure, which indicates that the demand is highly inelastic.

- Levels of education (question 4)

Currently 46% of the executives and 37% of senior managers already hold masters degrees or higher, whilst a further 33% and 50% respectively have bachelors degrees or equivalent. A more detailed analysis of the demand and the elasticity thereof has been carried out in section 4.2.2.3 below.

- Delivery mode (question 5)

The block-release delivery mode was ranked most desirable by 67% of respondents, whilst the other 2 modes (full-time and part-time) received only 17% each. The part-time delivery mode was the second most desirable.

- Modules (question 6)

In terms of the modules proposed, the combined response ranked them as follows:

Module/ranking	1	2	3	4	5	6	7	8	9	WA
Strategic management of NCAs	50%	17%	17%	0%	17%	0%	0%	0%	0%	79%
Economics & sustainable funding of NC	17%	33%	0%	0%	0%	0%	33%	17%	0%	55%
Environmental law & policy framework	17%	17%	0%	0%	0%	17%	0%	33%	17%	44%
Governance & financial management of public sector NCAs	0%	0%	17%	17%	17%	17%	0%	17%	17%	23%
Development, marketing & management of ecotourism & other natural resources	0%	17%	17%	17%	0%	17%	0%	17%	17%	47.6%
Project management	17%	0%	17%	0%	33%	0%	0%	17%	17%	48.8%
Public-private partnerships, communities & NC	0%	0%	17%	17%	17%	33%	0%	17%	0%	47.2%
Land restitution & NC	0%	0%	0%	17%	0%	0%	33%	0%	50%	25%
Landscape & community-level NC	0%	0%	17%	17%	0%	17%	17%	0%	33%	37.3%

Table 4.3 Priority ranking of proposed modules (WA refers to the weighted average rankings of each module).

On the basis of weighted averages, the module ranking is as follows:

1. Strategic management of nature conservation agencies	79%
2. Economics & sustainable funding of nature conservation	55%
3. Project management	48.8%
4. Development, marketing & management of ecotourism	47.6%
5. Public-private partnerships & nature conservation	47.2%
6. Environmental law & policy framework	44%
7. Landscape & community-level nature conservation	37.3%
8. Land restitution & nature conservation	25%
9. Governance & financial management of public sector NCAs	23%

This ranking correlates quite closely with that obtained from the preliminary survey (see section 4.1.1).

Additional modules identified by respondents included:

Integrated environmental management (1 mention)

Environmental management systems (1 mention)

Human resource development (1 mention)

Of these, human resource development (management) is already included in the 1st year general MBA programme and the other two are core components of an environmental development programme, such as that offered by CEAD and are not considered relevant for the proposed programme.

- Other qualifications (question 7)

Other, equivalent qualifications identified included only the Master of Science: Conservation Biology (University of Cape Town) and Master of Science: Environment & Development (UKZNP) mentioned in the industry review (Chapter 2).

- Comments, suggestions or criticism (question 8)

Additional comments received were as follows:

- Nature conservation is too narrow a field, the trend is towards integration with environmental management (Dr Greg Knill, Limpopo Department of Nature Conservation)
- There is still a need for these people to obtain actual business experience (Mr Mike Bridgeford, EWT)
- This looks like a very useful qualification (EKZNW)
- Very suitable for current & prospective conservation managers

In the process of distributing the survey and attempting to solicit formal responses, the frequent response from individuals spoken to was, “Sounds like a great course, when can I start?” This suggests that, in addition to the organizational demand reflected in these results, there may well be significant further demand from individuals within the sector who would wish to improve their qualifications and hence their career opportunities.

4.2 Market assessment

As discussed in chapter 3 above, this research has followed the market-driven methodology described by Lambin (2000). In his view the assessment of the proposed market requires consideration of two issues, namely the clear identification and detailed categorization of the relevant market segment and the attractiveness of the market.

4.2.1 Market segmentation

In order to identify the target market segment we need to answer four questions, namely:

- What business are we in?
- Who are our customers?
- What product (solution) are we offering?
- How will we deliver the product (solution)?

4.2.1.1 What business are we in?

Essentially, in the MBA programme, the university is in the business of management capacity building through the provision of post-graduate, business administration education. The specific products offered are the Postgraduate Diploma in Management

and the Master of Business Administration degree. However, the solution provided may be described as “a ticket to better job opportunities and enhanced earning potential.” This applies equally to the general MBA as it does to the proposed specialized programme.

4.2.1.2 Who are our customers? (reference market)

By definition our customers are:

- graduates, with at least a bachelor’s degree or four-year diploma (usually not business or business administration related)
- in (or aspire to) middle to upper management or executive positions
- seeking to obtain a business administration qualification
 - to fulfill a job requirement
 - to improve promotability within their present organisation
 - to improve mobility/marketability
- self-employed or employed in the private or public sectors
- sponsored by or through employers, or self-funded
- both genders
- all races (but with predominance of previously disadvantaged individuals whose upward mobility is assisted by employment equity policies and principles)
- aged from late 20s to late 50s

4.2.1.3 What product are we offering? (function)

Specifically, we offer recognized, postgraduate business administration qualifications, which are designed to complement primary (professional) qualifications and experience, to equip current or potential managers to progress to the highest levels of management. Our product-range includes both generic, or main-stream, offerings as well as specialized, “niche” products. These include the MBA in Water Management, which is already available and the proposed NC MBA currently under consideration.

The specialized products are both differentiated from the mainstream offerings of this and other institutions, as well as aimed at a more narrowly-defined segment of the market. The segment at which the proposed programme is aimed comprises individuals who

currently work in the nature conservation/environmental management sector and whose primary qualifications are in those fields.

4.2.1.4 How will we deliver the product? (technology)

Our products are largely classroom-based, so candidates are required to attend lectures in Pietermaritzburg. Classes are kept reasonably small to enable personal contact and free discussion. Much of the work is group-based and there will also be field-visits and case-studies. The partnership of EKZNW will be invaluable with regard to the latter two aspects.

Two delivery modes are available. These are either part-time (evening) lectures, which are held weekly throughout the semester or concentrated campus tuition (block-release), which requires candidates to attend three, week-long blocks of lectures during each semester. In both cases communication with candidates and between candidates for group work is largely e-mail based, which means that it is not essential for candidates to be resident locally, but it is essential that they have access to e-mail facilities and the internet.

Our primary market pool is obviously the KZN Midlands area, particularly with regard to the mainstream product and part-time (evening) delivery mode, however the same is not true of the niche products. Here the pool is much wider and our focus would be on the SADC region and/or sub-Saharan Africa because of the unique nature of the programme. This is facilitated by the block-release delivery mode which will enable candidates to return to their workplace between tuition blocks. Whilst we would not wish to exclude candidates from other parts of the world, the focus will clearly be (southern) African.

4.2.2 Market attractiveness

Lambin (2000, p292) suggests that a market's attractiveness can be assessed only by:

- Examining its potential (i.e. determining whether or not any "gap" exists between current sales and absolute potential).
- Considering the product's life-cycle stage.

- **Measuring the demand.**

4.2.2.1 Market potential

Apart from any attempt at directly determining or estimating demand (which is dealt with in section 4.2.2.3 below) there are a number of factors affecting market potential which need to be considered:

- **Product type** – The product offered may be classified as a professional service which is therefore, according to Lambin (2000, p300):
 - intangible (other than the qualification or certificate which merely represent evidence of the service)
 - perishable (cannot be “stored”, an empty seat represents lost business)
 - inseparable (is produced and consumed simultaneously) and
 - subject to highly variable quality (measured by the consumer’s perceptions in terms of search quality, experience quality and credence quality).

According to Lambin (2000, p302) the implications of offering a service are the need to reconcile productivity constraints through standardization and the use of technology; maximization of quality controls through personal interaction with consumers and differentiation.

- **Growth opportunity or gap analysis** – It is necessary to identify the nature of any “gaps” in the market. In terms of Lambin’s classification (2000, p308) it appears that the following gaps exist in respect of the proposed programme:
 - A distribution gap in the sense that, as far as can be determined, this product is not available anywhere in the region (i.e. a coverage gap).
 - A product line gap in the sense that we will offer an MBA with options that are not currently available, in a form which is not currently available and which is targeted at a segment which is not currently being targeted. (i.e. this gap will be exploited by offering a unique “niche” product)

4.2.2.2 Product life-cycle

When considering whether or not to launch a new product, it is useful to consider the life-cycle stage of the product to be launched (Lambin, 2000, pp311 to 325). This helps to determine the extent of market potential and the longevity, or sustainability of demand, as well as the degree of profitability. These factors will be considered in more detail later on in this section.

In considering the product life-cycle, it was necessary to consider two levels. At the upper level consideration was given to the life-cycle characteristics of the mainstream MBA, whilst at the lower level this report considered the “niche” products in general and the NCMBA in particular.

- **Mainstream MBA** – This product is probably in the growth/shake-out phase in South Africa. Demand is growing and is being fueled by the emergence of previously disadvantaged middle and senior managers who lack business/management experience and/or formal business administration qualifications, particularly in the public sector. According to the Council on Higher Education (CHE) there are currently 27 institutions offering 37 MBA programmes (CHE, 2004, p). The shake-out which is beginning to occur is partly market-driven, as consumers start to question and rank the credibility (and marketability) of the various MBAs. This is highlighted by the FM annual survey, which rates and ranks the various institutions by a range of employer-driven criteria. However the Department of Education, under the auspices of the CHE, an independent statutory body created in terms of the Higher Education Act, 101 of 1997, has recently undertaken a process of re-accreditation with the intention of reducing the number of accredited institutions to ensure the maintenance of acceptable quality. At the time of writing the first phase of this process has been completed and the results announced. Programmes examined have been classified into three categories as follows:
 - **Fully Accredited Programmes**
 - University of Pretoria
 - University of the Witwatersrand

- University of Stellenbosch
- University of Cape Town
- UNISA
- Conditionally Accredited Programmes
 - University of the Free State
 - University of KZN (UDW)
 - Rhodes University
 - University of the North
 - University of the North West
 - Potchefstroom University
 - Pretoria Technikon
 - Port Elizabeth Technikon
 - Milpark Business School
 - Henley Management College of SA
 - Mancosa
 - Damelin International College
- Not Accredited Programmes
 - University of KZN (UNP)
 - University of KZN (UND)
 - Witwatersrand Technikon
 - Durban Institute of Technology
 - Cape Technikon
 - De Montfort SA
 - Regent Business School
 - Bond SA
 - Business School Netherlands
 - Graduate School of the International Negotiation Academy

(CHE, 2004, pp)

As a natural consequence of the shake-out phase institutions (including this university, for which only conditional re-accreditation of its programme

previously offered by UDW has been granted) are being forced to follow differentiation strategies, in terms of which they have to be perceived as “different from” rather than “better than” the established, recognized leaders.

- Niche MBAs on the other hand are arguably at the take-off stage, as each is a separate product in its own right, serving a smaller sub-market, with its own, possibly shorter life-cycle. Clearly they will be affected by the overall MBA product life-cycle, but, properly managed, it could be argued that this is probably indefinite. The implication for the proposed programme is that, properly packaged and promoted, it could be expected to have a product life-cycle of 5 to 10 years and offer a first-mover competitive advantage at least for the first 2 to 3 years before other universities might offer similar products. These strategic marketing implications are discussed in more detail in chapters 5 and 6 below. It should be pointed out, however, that the CHE appears to be opposed, in principle, to specialized or niche MBA programmes and this could have a serious impact on such a differentiation strategy.

According to Lambin (2000, pp315 to 319) the factors, which contribute to the progression of a product through the various stages of the life-cycle, known as drivers, include:

- Evolution of technology. It is argued that this is not of great significance here as it relates mainly to the product delivery mode, rather than to the product itself. Service providers who make clever use of technology will clearly gain some competitive advantage, but the most important criteria will remain product quality (i.e. marketability) of the qualification and its relevance to the needs of the consumers.
- Evolution of production and consumption norms. It is possible that demand for MBAs (both general and specialized) may diminish over time (as the life-cycle passes from maturity to decline) as a result of both satisfaction of pent-up demand and changes in primary degrees to incorporate increased business component. Institutions will, no doubt, continue to “talk-up” and reinvent the product, and this process will be assisted by the growing pool of managers with

MBAs in the country. The challenge to the university is to ensure it keeps pace with the competition and doesn't allow its brand life-cycle to fall behind the overall product life-cycle. This challenge has been hugely complicated by both the merger of the University of Natal and the University of Durban Westville (UDW), to form the University of KwaZulu-Natal (UKZN), on 1 January 2004 and the CHE re-accreditation process, discussed above. The current intention is to work towards securing the conditional accreditation of the UDW programme and offering a single programme from both the Durban/Westville and Pietermaritzburg centres under the auspices of a Graduate School of Business.

Strategically, it is important to correctly identify the product life-cycle stage because this will affect the economic and competitive environment, it will determine the cost and profit structure of the market and hence the appropriate strategic objectives and marketing programme.

Clearly, as the first of its type, the specialized MBA in Nature Conservation Management will commence life in its introductory phase and it will be necessary to take the following external and internal factors into account (Lambin, 2000, p315):

- External factors – Buyers may be slow to recognize and accept the new product. Although the product will be “tailor-made” for people in the conservation and environmental management sector, the many mainstream MBAs will definitely be strongly competitive as buyers will need to weigh the pros and cons of a tailor-made, but unknown product against known, but generic alternatives. Additionally, it may well happen that one or more competitors will introduce similar products, as the barriers to entry are not particularly significant, though the accreditation process discussed above has undoubtedly “raised the bar!”**
- Internal factors – In general there is a strong likelihood that cash-flows (and/or profitability) will usually be negative initially, as it may take a year or two before critical mass is achieved. In order to preserve credibility it will be critical not to withdraw the programme once it has been advertised, even if numbers are below**

breakeven levels. See the financial viability assessment, discussed in section 4.4 below, for more details.

According to Lambin (2000, p316), the length of the introductory phase is a function of the speed of adoption of the product by conservative consumers, which will depend on a number of factors such as:

- The perceived importance of the “tailoring” (specialization) to the targeted segment.
- The “costs” of adoption of the product. In addition to real additional costs, such as travel and accommodation costs, buyers will have to weigh up the “opportunity costs” of not doing a traditional, mainstream MBA from one of the top schools.
- In this regard, potential buyers must therefore weigh up these real or perceived additional costs and compare them with the benefits of the differentiated product.
- This decision-making will be facilitated if the benefits are very visible, or obvious and if they are able to “sample” the product or get a sense of how it differs from the alternatives, through clear communication and the provision of detailed module outlines.
- Lastly, the introductory phase may be extended by the reaction, if any, of competitors. This could take the form of attempts to convince potential buyers that their products are also “tailored” (e.g. The University of Pretoria offers several environmental management electives) or they might intensify their marketing efforts to the targeted segment to persuade them that a mainstream product has greater benefits.

Strategically, therefore, the primary objective should be to create primary demand and to shorten the introductory phase as much as possible. This would require the adoption of some or all of the following tactics (Lambin, 2000, p318):

- Creation of awareness of the product within the target sector. This included the distribution of information leaflets announcing the intention to develop the product, from the EKZNW stand at the WPC in Durban in September 2003.

- The information and awareness campaign should highlight the benefits of the programme and the extent to which it differs from other, mainstream MBA products
- Offer inducements to try the product. In this regard, consideration could be given to offering one or more of the proposed specialist modules as electives as part of the general MBA, to gauge response and to create interest and awareness. This has the advantage of being more easily withdrawn if unsuccessful.

These aspects will be more fully explained as part of the recommendations in Chapter 6.

4.2.2.3 Demand measurement

The final component of a market attractiveness assessment is to attempt to forecast the likely demand before committing to production. This study attempts to do this using the relatively subjective “expert judgement” basis (Lambin, 2000, p326) as discussed in chapter 3 above. The demand forecast is based on the two surveys described in chapter 3 above, the results of which are detailed earlier in this chapter and which, in essence, represent a buyers’ intentions survey. As detailed in chapter 3 the survey attempted to elicit information concerning the following relevant components of demand:

- Training budgets
- Current qualifications
- Actual usage

The following table (Table 4.4) summarises these responses and extrapolates them to the population as a whole. The extrapolated figures are in red.

	NCAs		NGOs		Total	
Factor	Sample	Total	Sample	Total	Sample	Total
No of organizations	4	18	3	9	7	27
Average staff complement	1,389	25,002	188	1,692	1,577	266,944
Execs & senior managers	18 (1.3%)	325	15 (8%)	135	33	460
Initial demand	6 (33.3%)	108	1 (6.7%)	9	7	117
Annual demand	9 (50%)	162	2 (13.3%)	18	11	180

Table 4.4 Summary of indicated demand for NCMBA

The average staff complement of the NCA respondents was 1,389, of whom 18 (1.3%) were classified as senior managers and executives, which would represent the primary “pool” of potential candidates.

At current fee levels and taking into account current financial constraints, the respondents indicated that they would wish to send 6 individuals (33%) on the programme initially and a further 9 individuals (50%) annually thereafter.

If we extrapolate this to the total population of 18 organisations, we find that there is a total staff complement of around 25,000, of whom 1,692 would represent the pool of existing senior managers and executives. At the indicated initial take-up rate of 33%, this would suggest a potential immediate demand of around 108 individuals, and annual demand thereafter of around 162 (50%).

Responses were received from 3 (out of 9) of the NGOs. The average staff complement was 188, of which 15 (8%) were classified as senior managers and executives. The indicated initial and subsequent demand at current fee and funding levels were 1 (6.7%) and 2 (13.4%) respectively.

By extrapolation the total staff complement of all the NGOs is around 1,692 people, of whom some 135 would be senior managers and executives. At the above levels, demand would be in the order of 8 individuals initially and 18 annually thereafter.

Estimated total demand from both groups is therefore potentially as much as 116 initially and 180 annually thereafter. The following factors should, however, be taken into account before these figures can be regarded as representing actual demand:

- The lack of response from some organizations may reflect a lack of interest in and therefore lack of demand for the programme. (To put it another way, responses may have come from organizations that were interested in the proposed programme.) This would clearly undermine the extent to which reliance can be placed on the extrapolations. (Alternatively it may simply reflect the fact that the questionnaire did not get to the right department or individual in the organization.)
- Some organizations, which might be interested in the programme, may simply lack the means to pay and this may impact negatively on the real demand. These organizations should be encouraged to seek funding assistance from the NGO and aid sectors.
- Real demand will be impacted by logistical problems, including the distances involved and the lack of spare human resources to cover for absences during the block-release periods.
- It is likely that demand will taper off quite rapidly once the initial, pent-up demand has been satisfied and an echelon of qualified executives and managers has been established. Thereafter demand is likely to stabilize at significantly lower levels, which will approximate the rate of turnover of staff at the relevant levels. On the other hand, executive turnover rates may increase as an MBA qualification would make those individuals more marketable both inside and outside the nature conservation sector.
- There is the possibility of significant, additional demand, which has not been captured by this survey, from individuals within the sector who would be willing

to pay their own way in order to make themselves more promotable and/or marketable.

- While non-responding NCA organizations may not have exactly similar profiles in terms of numbers of employees and the like, it is argued that the sample is reasonably representative in that includes both relatively large (EKZNW) and relatively small (Gauteng) examples. A key non-respondent is SANP whose inclusion would certainly have made the sample more representative.

On balance it seems that, for the purposes of assessing the market attractiveness and carrying out the financial viability assessment, demand can reasonably be expected to fall somewhere between 7 and 116 initially and between 10 and 180 annually thereafter, at least for the first few years.

Finally, it is necessary to consider the elasticity, or otherwise, of the demand (Lambin, 2000, p293). In terms of economic theory, elasticity of demand reflects the extent to which the demand for any given product or service is sensitive to (i.e. increases or decreases) changes in one or more key variables, such as price and/or availability of substitute products (Lindaert & Pugel, 1996, pp13-17).

Based on the results of the needs analysis survey, it can be concluded that demand for the NCMBAs would be highly price inelastic (i.e. demand would not fluctuate significantly in response to changes in the fees.) This conclusion is based on the responses to question 3.2 (c) in which respondents were asked to indicate the extent to which their responses regarding the number of candidates they would wish to enroll would be affected by either a 50% reduction, or a 100% increase in the tuition fees. All respondents, bar one, indicated that this would have no effect on the number of candidates. The exception indicated that their numbers would increase and decrease by 50% (i.e. in direct proportion to the changes in price)..

For the purposes of carrying out a financial viability assessment, details of which are set out under paragraph 4.4 below, it is necessary to make an assumption of the level of new

entrants into the programme for each of the first five years of operation. Because these can only be “educated guesses” the model will consider three alternative demand scenarios. These are:

Most likely (realistic view – per discussion above) - highest probability

Worst-case (pessimistic view) – lower probability

Best-case (optimistic view) – lower probability

Based on the results of the demand analysis and the factors discussed above, the following demand estimates (Table 4.5) have been applied under the three scenarios:

<u>Scenario</u>	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>
1. Most likely	10	15	20	25	25
2. Worst case	7	10	10	10	10
3. Best case	25	30	35	50	50

1 Table 4.5 Annual demand estimates per annum per scenario

It can be seen that the demand estimates for scenarios 1 and 2 are both near the lower end of the actual demand levels indicated by the survey. Thus the hypothetical (extrapolated) initial and subsequent demand levels, based on the extrapolated figures in 4.2.2.3 have been viewed extremely conservatively, because of the factors discussed in the analysis. There is no reliable, objective way of estimating these levels. This highlights the fact, as do the results of the financial viability assessment, set out in section 4.4 below, that there is a fine line between the viability or not of such a project. Essentially, the difference between scenarios 1 and 2 is the extent to which numbers grow over the first two to three years. In reality this growth is, to very great extent, dependent on the extent to which the programme meets expectations of the “guinea pigs” who enter the programme at its inception.

Finally, the estimated intake under scenario 3 is well below the upper-limit of demand as suggested by the demand analysis above. This is justified on the basis of realistic optimism, rather than “pie-in-the-sky” dreaming. It is also tempered by considerations of critical mass, manageability and capacity.

4.2.3 Market share and growth

The Boston Consulting Group (cited in Pearce & Robinson, 2000, pp334 - 336) developed its product portfolio analysis model in terms of which products are placed within a matrix (quadrant) where one axis represents relative market share (competitiveness) and the other represents rate of growth of that market (attractiveness). Products falling within the four quadrants can then be easily categorised as being either:

	<u>Market Growth</u>	<u>Market Share</u>
• Stars	High	High
• Cash cows	Low	High
• Dogs	Low	Low
• Problem children	High	Low

In these terms the MBA in nature conservation management would be categorized as a “problem-child” product, in that whilst the market is likely to enjoy fairly rapid market growth (from a zero-base), which will soon peak and stabilize, it will represent a relatively small share of the total MBA market. Despite this classification, which would normally indicate a need to rapidly build market-share or to disinvest, it is argued that it can still be an attractive proposition as start-up and fixed costs are relatively small, profitability can be achieved in the short term and the competitive advantage obtained from differentiation can be quite rapidly shifted to new niche products.

4.3 Competitiveness assessment

Having examined issues relating to the market and the attractiveness thereof in respect of the proposed product, it is also necessary to examine the competitiveness of the UKZN MBA programme in relation to the major players in the sector in particular and the sector in general.

This assessment is aimed primarily at identifying whether or not UKZN can obtain a degree of competitive advantage over its rivals, whether or not this is sustainable and

whether the combination of market share and market growth will ensure financial viability.

4.3.1 Competitive environment

The MBA market, with 24 players, of whom 5 or 6 are fairly dominant (Financial Mail, 2003, *2003 MBA Survey*), appears to have some of the characteristics of an oligopoly. However, as it doesn't seem that the life-cycle has reached its maturity phase (see discussion above) it may probably be more appropriately classified as an Imperfect/Monopolistic competitive environment. This is defined (Lambin, 2000, p359) as a market with many competitors (relative to the overall size of the market), evenly-distributed market powers and differentiated products (as perceived by consumers).

Competitive advantage in such a market is obtained through a combination of perceived product quality, price, delivery and packaging, location and focus (or specialization) (Lambin, 2000, p359). This environment would support the value of the adoption of a differentiation strategy in terms of which we must ensure the following attributes:

- The product offered is truly unique
- The targeted sector must perceive added-value
- The product must offer better "performance" by more closely fitting the needs of the target segment
- The value-added must justify any real or perceived price premium
- The difference must be sustainable
- Any cost premium (of specialist lecturers, for example) must be recoverable
- The benefits must be adequately signaled (communicated) to the target segment.

(Lambin, 2000, p359)

A powerful advantage of such a differentiation strategy (assuming it in fact meets the needs of the targeted segment) is that it results in relatively inelastic demand, which is not very sensitive to price variations and therefore creates competitive advantage. The results of the needs analysis survey confirm that the demand is inelastic. (See section 4.2.2.3)

4.3.2 Market forces

By considering and understanding these forces we can ensure that we have strategies in place to enhance the competitive advantage. These forces, as defined by Porter (1979) are:

- **Competitors** – The Financial Mail 2003 MBA Survey identified 24 institutions which offer MBA degrees. These can be broadly split into established, reputable South African universities offering home-grown, residential-based MBAs on the one hand and more informal institutions offering foreign university MBAs on an agency basis on the other. The market leaders over several years are Universities of the Witwatersrand, Cape Town and South Africa, which fall into the former category and the newly-formed Gordon Institute of Business, which is of the second type. The majority of these institutions offer mainstream MBAs with any differentiation being limited to differences of quality and to a lesser extent emphasis or focus. As far as can be ascertained, only the University of Pretoria offers a directly competitive differentiated product. (This was discussed in more detail in Chapter 2, above.) In view of the smallness of the target segment, it seems unlikely that, other than the University of Pretoria, any of the established competitors will react very directly, by attempting to target the same segment.
- **New entrants** – Until recently the numbers of new entrants into the market have been increasing quite rapidly, particularly in the second category. The FM survey identifies 16 in 2001, 23 in 2002 and 24 in 2003 (Financial Mail, 2003, *2003 MBA Survey*). Barriers to entry in that category have been relatively low and the rapid growth in demand has been matched by equally rapid growth in supply and within that component of the market, price leadership has become an important source of competitive advantage. As mentioned in chapter 2, a new initiative by the Department of Education, aimed at regulating the sector through a stringent accreditation process is likely to dramatically curtail the threat of new entrants, by raising the barriers to entry significantly. Also, because of its relatively specialized nature, the barriers to entry for an NC MBA, are considerably higher.
- **Substitutes** – While there are other alternatives in terms of post-graduate qualifications, the gilt-edged aura of the MBA has not diminished and it is still the

most prized post-graduate business qualification. The major threat of “substitutes” is really the flood of inferior MBAs being offered by some of the category two type institutions. This includes a one-day MBA! Fortunately the market, in the form of the employers of MBA graduates, will largely discount these “fly-by-night” MBAs and they will also be unlikely to keep or obtain accreditation, particularly in the light of the CHE initiative discussed in chapter 2.

- **Suppliers** – Our only suppliers are the experts who will make up the lecturing staff of the programme. Whilst they will have some power to demand improved terms and conditions of employment, most of them will be full-time academics, employed by the university or conservationists employed by EKZNW. It is not considered likely that they will pose any kind of threat.
- **Customers** – As the ultimate arbiters of whether or not the product meets their needs, at the right price, in the right place, at the right time, the customers represent the strongest force of all and will certainly have the power to kill the product or make it a success. It is clear, therefore that virtually all of our attention must be focused on the customers, that is the organizations and individuals who make up the target sector.
- **Regulators** – Whilst this is not one of the market forces defined by Porter, regulation would form part of the macro-environment within which the market operates. As discussed in Chapter 2, recent developments at the level of industry regulation (in the form of the CHE re-accreditation process) have had a major impact on the market and have effectively entrenched the position of the elite group of top business schools by confirming their product quality. It has thrown the rest of the market into disarray, by refusing re-accreditation to those institutions which failed to meet its criteria (including both the former UNP and UND programmes) and giving conditional re-accreditation to those institutions which did not meet all the criteria (including the former UDW) but which were deemed to be redeemable. These institutions have 6 months to satisfy the CHE of their worth (or face de-accreditation). Clearly this process will have severely impacted the credibility and competitiveness of UKZN.

As pointed out in section 1.2, there are a number of factors which give UKZN a competitive advantage in this specialized segment. These include its acknowledged leadership in the field of conservation and biological sciences, with conservation being the focus of one of its four strategic initiatives, the expertise already available within the CEAD and its partnership with EKZNW, the regional conservation authority. It is submitted that these qualities would be difficult to duplicate and represent relatively high barrier to entry to this sub-segment of the market for other institutions.

4.4 Financial viability assessment

The financial viability assessment model was constructed using Microsoft Excel spreadsheet software and is attached as Appendix F. The model is a standard cash flow projection over 5 years, with the overall net cash flows discounted back to present values using the Excel NPV function. All values are expressed in current (2004) terms and inflation is ignored. The discount rate applied thus also excludes inflation.

The model comprises four worksheets. Worksheet 1 is the Input Sheet (Annexure 3.4), which sets out details of all the input variables affecting both incomes and expenses, as well as assumptions affecting income and expenditure.

Worksheets 2, 3 & 4 represent the detailed cash flow projections under the three demand scenarios described in section 4.2.2.3 (most likely, worst case and best case) (Annexures 3.1, 3.2 & 3.3).

4.4.1 Demand scenarios and revenue estimation

The level and elasticity of demand can be estimated from the results of the needs assessment. By applying the results of the sample to the total conservation sector, a feeling can be obtained for the primary demand. It can be seen from the summary of the results of the needs analysis in 4.2.2.3 above that the minimum demand level is likely to be 7 initially, rising to 10 annually thereafter. If those results are extrapolated from the sample to the population as a whole, then there is a potential demand for 116 places initially rising to 180 thereafter. These extremes represent the demand levels applied to

the worst-case (Annexure 3.2) and best-case (Annexure 3.3) scenarios, whilst the most-likely (Annexure 3.1) scenario is a conservative estimate, reflecting the highest degree of probability, falling between them.

The primary income stream flowing from the proposed programme comprises the registration and tuition fees payable by students. From this revenue must be deducted the university's "top-slice" of 20%. Annual revenue from these sources is based on a combination of:

- 4.4.1.1 The current (2004) tuition and registration fees.
- 4.4.1.2 Estimates of the number of new students entering the programme over the 5 year period, which are based on the demand estimates.
- 4.4.1.3 Estimates of the progression and drop-out rates of students through the programme. These have been based on the experience of the current MBA programmes since their inception in 2000. The assumptions which have been applied, after consultation with the Programme Director:MBA, are that:
 - 4.4.1.3.1 Phase 1 - 25% of the students will complete all 8 modules of the first phase in one year, whilst the rest will complete 5 modules in year 1 and the other 3 in year 2.
 - 4.4.1.3.2 Phase 2 – 75% of students will complete the 7 modules in one year, whilst the remainder will complete 4 modules in year 1 and the other 3 in year 2. (This includes the integrated project assignment).
 - 4.4.1.3.3 Phase 3 (Dissertation) – It is assumed that 50% of students will complete this in 1 year, whilst the rest will take 2 years.

The model is constructed in such a way that it is possible to vary one or a combination of these three elements in order to assess the impact thereof. As stated above, the viability assessment is based on an evaluation of three independent scenarios in which the new admissions to the programme are varied according to optimistic, pessimistic and most-likely estimates. The variables making up the revenue calculations, other than intake

numbers, are set out in the Input Sheet, Annexure 3.4. It should also be noted that, in addition to the direct revenue received in the form of tuition and registration fees, the university also receives a government subsidy on the basis of the number of graduates produced annually.

4.4.2 Cost estimation

The Costs associated with the project can be grouped under the headings of once-off, start-up costs which will occur in period 0 and recurring costs which will occur in each subsequent period. These recurring costs need to be further sub-divided into those costs which will vary with the level of demand (variable costs) and those which will not (fixed costs).

4.4.2.1 Start-up costs

Assuming that this programme would be offered in Pietermaritzburg only, no new assets are required for this project as the MBA house is fully-equipped and already has all the necessary furniture and equipment. Start-up costs will therefore be limited to the costs associated with the administrative processes involved in the approval and registration processes and marketing and advertising the programme. Based on the experience of the development of the MBA in Water Management, these have been estimated at R35,000.

4.4.2.2 Recurring costs

The recurring costs are those associated with the delivery of the programme on an ongoing basis. These can be divided into three categories:

4.4.2.2.1 Fixed costs – those costs which will be incurred while the programme is running and which will not vary significantly with changes in the numbers of students. These costs are primarily related to administration and support staff.

4.4.2.2.2 Variable (per module) – those costs which relate to the mounting of particular modules, but which do not vary with the number of students registering for the module. The primary element is the lecturer fee.

- 4.4.2.2.3 Variable (per student) – comprises those costs which vary directly with the number of students registered for any given module as well as for the programme as a whole. These include printing and stationery costs, marking and examiner fees, supervision of dissertations and telecommunication costs.**

All of these recurring costs have been estimated on the basis of an examination of the university-approved budgets for both the general and water MBA programmes for 2004 and after consultation with the MBA programme director and senior staff of the finance division.

It should be noted that, for the sake of simplicity, lecturer fee costs have been treated as variable (per module) costs. Some modules, however, are common to the existing PGDip and MBA programmes and are not, therefore, incremental costs to this programme. The impact of this are discussed more fully in chapter 5, below.

The cost variables which underpin the projections of cash flows in respect of all three categories of expenses are contained in the Input Sheet. (Annexure 3.4)

4.4.3 Period of analysis

Other than projects involving major capital expenditure and requiring incorporation of any residual values of assets acquired, it is usual to limit the assessment period to between 5 and 10 years. This is because the further ahead we look the less certain we can be about the figures and because the application of present value techniques makes future cash flows less and less significant (Damodaran, 1997, p37). For the present purpose it is submitted that a 5 year assessment period is appropriate. In addition to the above, technical reasons, it is also submitted that any competitive advantage obtained from the differentiation strategy is unlikely to be sustainable much beyond 5 years.

4.4.4 Required rate of return

The RRR to be applied in assessing a project's viability is based on the organisation's WACC together with the desired profit margin, which is determined by the degree of risk involved in the project. The degree of risk is, in turn, driven by the amount of capital, which must be invested and the degree of confidence, which can be placed in the demand scenario(s) to be tested.

4.4.4.1 Weighted Average Cost of Capital

Despite the fact that this project will require little or no capital investment, the appropriate basis for determining the required rate of return is the university's WACC. This is based on the costs of the various sources of capital currently used by the university, proportionally weighted. Where there are no borrowings, the returns available from alternative investment opportunities may be applied. The basic measure will at least reflect the prime bank rate. The cost of capital rate specified by the Finance Division is the current prime overdraft rate (i.e. 12.5%).

4.4.4.2 Degree of risk

The risk "premium" which should be layered on top of the WACC should, as stated above, take into account the inherent risks of the project. The primary risk factor is the uncertainty of the projections, which, inevitably, are based on assumptions and guesswork, however carefully prepared. This is normal business risk and is the justification for the earning of profits as a fair reward.

The extent of risk is also affected by the exposure of the organization to losses if the project fails. This exposure relates to the ability (or not) to recover the up-front capital investment and/or start-up costs. Where these are significant and/or the assets are highly specialized, the risk is far greater. The degree of added risk is justification for the addition of a further premium of 2.5% in arriving at the RRR.

It is submitted that the degree of risk in this proposal is low to insignificant, so the risk premium should represent a normal profit margin.

4.4.5 Cash flow projections

The model reflects the cash inflows, for each year, in the form of tuition and other fees less the university's "top slice". From this is deducted the cash outflows arising from the four categories of expenses described above. The difference is the net cash flow for the year, from which the university's "bottom-slice" of 40% is deducted (if positive). The resulting net cash flow (positive or negative) is then combined with the balance brought forward from the previous year to reflect the cumulative cash flow over the 5 years.

Finally, the model calculates the NPV of the net cash flows for the five years and the actual IRR using the RRR as the discount factor in the calculations.

As stated above, the interpretation of these results is simple. Any positive NPV value indicates that the project is viable and will generate a return that is better than the required rate. The larger the value is the better. This will be confirmed by the IRR, which will reflect the actual return being achieved by the project.

The anticipated numbers of new entrants each year have been set as follows, based on the analysis of demand in table 4.5 above:

The results, under each scenario, can be summarized in Table 4.6 below:

<u>Scenario</u>	<u>NPV</u>	<u>IRR</u>	<u>DPP</u>	<u>Contribution</u>	<u>Appendix</u>
1. Most likely	-R20,320	10%	>4yrs	R1,081,606	F1
2. Worst case	-R157,153	<0%	>5yrs	R918,963	F2
3. Best case	R481,053	219%	>1yrs	R1,787,666	F3

2 Table 4.6 Summary of results of financial viability assessment per scenario

If one applies normal capital investment assessment criteria, these results indicate that the project should not go ahead as, based on careful evaluation of the variables and assumptions, the most probable outcome is that the desired rate of return (15%) is not

achieved and that the actual return is only 10% (which is less than the WACC of 12.5% before the addition of the risk factor). Additionally, the project only achieves “pay-back” in the 5th year.

Not surprisingly, the worst-case scenario produces considerably worse results and it is only the optimistic scenario that paints a positive picture and delivers a very healthy return of 219%.

Under all scenarios, it should be noted, the university will receive additional income of close to a million rands, or more, over the 6 years.

The model highlights the fact that a project of this nature is highly sensitive to changes in volume of demand, as relatively small changes in volume result in massive changes in the NPV and IRR. This is caused by the fact that there is little or no upfront capital investment, as well as by the fact that the bulk of the costs are fixed and that, once fixed costs are covered (at the breakeven level) additional income is almost all converted to profit.

The model can be used to determine that the breakeven level (breakeven is used, in this instance, to represent the level at which the NPV would be close to zero and the IRR would equal 15%, which would signal the project is viable) is reached when there are between 17 and 18 new entrants per annum, a level which is reached in year 3 in scenario 1. This further highlights the fact that the initial intake and rate of growth both have a significant impact on the financial viability of the project.

In this chapter we have considered the findings obtained from the various aspects of the research, namely the needs assessment, the market assessment, the competitiveness assessment and the financial viability assessment. In the following chapter we will use these findings in order to draw conclusions regarding the overall viability of the proposed NCMB.

CHAPTER 5 CONCLUSIONS

In this chapter the research findings were evaluated and an attempt was made to make an overall assessment of the nature and extent of the demand, the attractiveness of the market, the competitiveness of UKZNP and the financial viability of the proposed programme.

5.1 Needs assessment

5.1.1 Demand

It is clear from the research findings that there is a potential demand for such a programme of between 8 and 116 initially and between 18 and 180 annually thereafter (section 4.2.2.3 above), but it is difficult to estimate the actual demand with any degree of certainty for the following reasons:

- The relatively low response to the survey and, particularly, the lack of response from SANP and other national conservation agencies in the SADC region.
- The gap, which undoubtedly exists between true demand (must have) and mere desire (nice to have) which may skew the results of such a survey.
- Financial (affordability) and logistical barriers.
- Sustainability of demand and the extent, if any, of pent-up demand.

Whilst the survey attempted to probe these issues it is difficult, with such a small population, to draw hard conclusions. The true demand will only become apparent if and when the product is put before the market. It is for these reasons that the demand estimates used for the financial viability assessment (see section 4.4), were all quite conservative.

5.1.2 Composition

The results of the survey appear to largely confirm our assessment of what modules need to be included in such a programme. Also the draft programme is broadly in line with the objectives and philosophy of major conservation leaders, in particular the IUCN and WCPA as confirmed by its series of guidelines referred to in section 2.3 above and

reinforced by the deliberations and recommendations of the WPC in Durban. (IUCN, 2003, *WPC Outputs*)

The composition of the programme is closely aligned with the general MBA and the MBA in Water Management, with differences only at the level of the combination of electives and the range of topics in the integrated project modules. These electives would only be offered on the basis of reasonable demand and new modules could be developed on the basis of demonstrable demand as and when necessary.

The general and specialist level 2 modules, which would need to be developed or adapted, would encompass the following (as prioritized by respondents to the survey):

- Strategic management
- Economics and sustainable funding
- Project management
- Ecotourism development and marketing
- Public/private partnerships
- Environmental law & policy framework
- Landscape and community-level conservation
- Land restitution
- Governance and financial management

5.2 Market assessment

The market attractiveness analysis confirms that there exists an untapped, highly specialised market sub-segment, which might justify a segmentation strategy as described by Lambin (2000, p271). Whilst this sub-segment is undoubtedly small in relation to the total MBA market, any institution targeting it would obtain a clear competitive advantage from being first-to-market, as there is undoubtedly a degree of pent-up demand. This suggests that the segment is probably too small to support more than one entrant and therefore being the first to target the segment is critical.

There is however a major concern, arising in the external environment affecting the timing. The CHE has recently undertaken an MBA re-accreditation process, with the objective of rationalizing the industry and ensuring the maintenance of acceptable levels (as discussed in some detail in chapter 2 and in the market attractiveness discussion in chapter 4) and is thus highly unlikely to approve applications for new offerings (Bisseker and Furlonger, 2003, p1). In addition the council is reported to have expressed its dislike of “niche” or named MBA programmes. This might mean that the programme would have to be offered as a general MBA with one or more nature conservation-oriented electives. This would more closely resemble the University of Pretoria offering and would reduce the market attractiveness.

5.3 Competitiveness assessment

Whilst the UKZNP School of Business is a relatively new player in the MBA market, it is already achieving critical mass and hence sustainability. Its MBA in Water Management is unique in Africa and has attracted students from a number of countries outside South Africa. The merger between the UN and UDW to create the UKZN and the consolidation of the three MBA programmes previously offered could arguably strengthen the overall competitiveness of its offerings. However the fallout from the failure to obtain re-accreditation for the former UN programmes and the provisional re-accreditation of the UDW programme will have severely damaged its credibility and it may take several years to restore confidence.

As pointed out above, this sub-segment is currently untapped and whoever is first-to-market will obtain a competitive advantage, if only for a year or two. However, as stated above, the University of Pretoria does have an offering, which features some electives in the field of environmental management. In addition Rhodes University is rumoured to be on the point of launching a similar product, although a visit to their School of Business website revealed no evidence of this (Rhodes University Investec Business School, no date, *MBA Degree*).

Finally, UKZN's strength in this field and links to the sector represent a distinct advantage and increased barrier to entry for other institutions, which are not similarly placed.

5.4 Financial viability assessment

A strict interpretation of the financial viability assessment results indicates that the project is unviable, but also demonstrates the very high degree of sensitivity to volume, such that a very small increase above the levels used in scenario 1 (most likely) would tip the balance. As the occupancy levels were somewhat subjectively determined, it could be argued that they were too conservative and the viability re-assessed. However, it is also true that many "marginal" projects can very easily be made to look viable by manipulating one or more variables, often only marginally!

It is important to note, also, that some of the costs attributed to the programme are not strictly "incremental" costs as they relate to lecturer fees for modules, which are already being delivered. In reality, therefore, any new entrants resulting from this programme would immediately improve the overall profitability of the MBA programme as a whole.

Further, it must be borne in mind that even though the proposed programme may be "marginal" from the school's perspective (as a self-funded programme), even on the basis of the worst-case scenario the university would enjoy an additional contribution of nearly a million rand, including the state subsidy, at no additional cost.

Ultimately, the decision of whether or not to proceed must be made on the basis of a "gut-feel" for the likely, actual demand and the extent to which costs are genuinely incremental and/or can be managed at lower levels. A decision to proceed would not necessarily represent a failure to heed the results of the financial viability assessment, but would reflect an appreciation of the NCMBA's role in increasing the overall viability of the MBA programme as well as a "bullish" view of the nature conservation industry as a whole and UKZNP's position as a niche player.

Such a programme would also represent a clear endorsement of the university's conservation strategic initiative and would allow it to "showcase" this expertise through a flagship programme of this nature.

CHAPTER 6 RECOMMENDATIONS

Finally, in this chapter, recommendations were made on the basis of the conclusions reached in chapter 6 above.

6.1 “In principle” recommendation to proceed

On the basis of this research and notwithstanding the “negative” outcome of the financial viability assessment, it is recommended that the proposed programme should be mounted and offered to the nature conservation sector.

The primary reason for this recommendation is that, as stated in section 5.4 above, the results of the financial viability assessment must be interpreted against the background that the lecturers’ fees in respect of existing course modules are not truly incremental and that any additional revenue resulting from this programme would tend to increase the profitability of the MBA programme as a whole.

Secondly, there is no doubt that the marketing strategy of differentiation and any competitive advantage accruing therefrom is dependent on being first-to-market with this unique niche product. Whilst this would tend to suggest that the university should move swiftly to develop the product and offer it to the market, the reality is that, because of the recent merger and the CHE re-accreditation process and its allegedly unfavourable attitude to “named” programmes, this is probably neither possible nor advisable. Launching in the short term would probably be limited to adapting some of the existing elective modules or adding some additional elective modules to meet the major identified needs of the nature conservation sector.

The following recommendations assume that the programme can be developed and launched in the short term, but should be read with this alternative approach in mind, as the resolution of the issues surrounding the merger and accreditation process are outside the scope of this report.

6.2 Programme details

The following specific recommendations are offered, concerning the proposed programme:

- **The programme should be developed and offered, as a self-funding programme by the Graduate School of Business in Pietermaritzburg, in partnership with identified stakeholders, including EKZNW, CEAD and the Conservation Strategic Initiative.**
- **It should be aimed at the nature conservation sector (including protected area management, but excluding environmental management).**
- **It should be called the MBA in Nature Conservation Management and should be offered in both part-time and block-release (Concentrated Campus Tuition) modes of delivery.**
- **It should be structured along the lines of the MBA in Water Management, as a 2-year programme involving 8 base or foundation modules in the first year (4 in each semester) and then 5 electives (including generalist and specialist modules) together with an integrated research report.**
- **Minimum entry requirements should be a 3-year degree or 4-year higher diploma in biological sciences and/or nature conservation, plus at least 3 years management experience in nature conservation/protected area management or related activities.**
- **Pricing should be similar to the current MBA in Water Management, but candidates would also have to pay the costs of field-trips, including transport, food and accommodation.**
- **Based on the priority ranking reflected by both surveys (and taking into account the aspects highlighted by the recommendations coming out of the World Parks Congress (IUCN, 2003, *WPC Outputs*)), initially specialist and/or tailored modules to be offered should include**
 - **Strategic management of nature conservation**
 - **Economics of nature conservation and natural resources and sustainable funding of nature conservation**
 - **Project management**

- Planning, development and marketing of ecotourism and other natural resource utilization
- Public-private partnerships and nature conservation
- Governance and financial management of public-sector nature conservation agencies (whilst this aspect received the lowest priority in both surveys, it is argued that governance is a vital issue for senior managers and executives and ought to be covered).

6.3 Marketing strategy

It is recommended that UKZNP proceeds with the development and launch of a new “niche”MBA programme to be aimed at the nature conservation sector in South Africa and its neighbouring countries in the sub-Saharan region. Whilst some respondents to the needs assessment survey expressed the view that nature conservation is too narrow a segment and that the product should be broadened to encompass the field of environmental management, it is submitted that the programme’s success depends on a highly focused segmentation strategy. Indeed there is a counter-argument that nature conservation itself is too broad a segment and that the programme should, in fact, target protected area management. The range and depth of issues discussed at and recommendations emanating from the WPC in Durban in September 2003 certainly confirm the need for the development of a wide range of knowledge and skills outside the scope of traditional training and education of protected area managers.

As discussed more fully in chapter 4.2 above it is recommended that the launch of this product should be carried out in conjunction with a highly focused marketing strategy aimed at:

- The IUCN and the WCPA
- The conservation chamber of theta
- Government nature conservation agencies
- Nature conservation NGOs and donor agencies
- Private game reserves and ecotourism operators

- Individuals working in or aspiring to work in senior management positions in the nature conservation sector

Specifically, the marketing strategy should incorporate the following promotional initiatives:

- Creation of awareness of the impending availability of the programme by a combination of advertisements, brochures and direct marketing.
- Emphasis of the unique benefits of the specialist nature of the programme as compared with the MBA offerings of other institutions.
- Highlighting the involvement of EKZNW as well as the university's expertise in the conservation arena.
- Linking the programme to the deliberations and recommendations of the 5th World Parks Congress and the Guidelines for Protected Area Managers issued by the WCPA.
- Offering inducements to organizations in the form of reduced tuition fees for enrolling 3 or more candidates.
- Endeavouring to accommodate the logistical and staffing constraints experienced by conservation organizations, especially those outside RSA, by being sensitive to their needs and flexible with regard to delivery modes.
- Attempting to meet the needs of candidates and their employers with regard to (elective) specialized modules.

It is recommended that marketing should be as narrowly focused and direct as possible and should be based on an information package comprising:

- CD and/or DVD presentation
- Brochures providing full details of entry requirements, registration process, fees, module outlines, rules, contact details etc.
- "Z" fold pamphlets providing key information.
- Direct marketing by letter/e-mail and follow-up visits/presentations based on survey mailing lists, World Parks Congress delegates list etc (this should be aimed

both at potential users as well as donor organizations which might be willing to provide bursaries/sponsorship for user organizations and/or individuals)

6.4 Action plan

Because of the timing implications of the issues identified relating to the CHE accreditation process as well as the university's recent merger, it is recommended that a "wait and see" approach be adopted, before going all out to launch a new product. The key variables will be the confirmation of re-accreditation of the UKZN MBA programme and the official attitude to the registration of new, niche MBA programmes. It may well emerge that registration of a named programme will not be permitted. In that event, the university will have to adopt an alternative approach of offering a standard MBA in terms of which a suite of nature conservation-oriented elective modules is offered. The research report component could also be integrated and more narrowly focused.

Nevertheless, it is recommended that in the interim the following actions be implemented:

- Obtain approval in principle from the university authorities, including approval of an initial budget.
- Identification and appointment of a programme director (or acting programme director) to commence development of the programme (or at least the suite of specialist modules) as well as of the marketing strategy and materials identified.
- Commencement of the processes for internal and external approvals by the university council, the CHE and SAQA (including the development of module templates etc).
- Identification and recruitment of suitably qualified and experienced individuals to develop and deliver individual modules.
- The immediate addition of one or more of the identified high-priority modules as electives in the general MBA programme. This would act as a means of assessing interest and testing the material/lecturers.

- Liaison with EKZNW to establish a working relationship with and develop mechanisms for the coordination and administration of case-studies and/or field trips.

6.5 Final considerations

The nature conservation industry, including its core function of protected area management and the related activities of game farming, hunting and ecotourism, is undoubtedly growing in size and importance, but is nevertheless small and chronically underfunded. Thus, whilst there is certainly growing recognition of a need for the kind of knowledge and skills, which a programme such as is proposed can offer amongst current and future senior managers and executives, there is no certainty that such a programme will enjoy significant, sustained demand.

Nevertheless the university has a relatively low risk in relation to the potential of the programme as it would represent an expansion of its existing MBA programmes and would involve relatively low additional fixed costs and many of these would only be incurred if a module was offered. As the decision to offer a module or not would depend on the numbers of candidates electing that module, even these costs are controllable.

In addition, as pointed out in the financial viability assessment, any new students attracted to the MBA programme would increase the contribution towards existing fixed costs and to the university's income in the form of its top and bottom slices from self-funding programmes.

In the final analysis, the decision to proceed or not and, if so, in what form and on what basis, appears to be dependent on the extent to which the proposed niche programme fits into the new Graduate School of Business's vision for the future as well as the education authorities' acceptance or not of the value and validity of this type of industry-specific MBA programme.

It is hoped that this research report may be of some value in assisting with the university's motivation for an MBA in Nature Conservation Management and in the final decision, by the relevant authorities, whether or not to permit it.

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1. Annexure 1.1 Mailing list – preliminary survey

<u>Name</u>	<u>Position</u>	<u>Organisation</u>	<u>Category</u>
Patrick Bodham-Whetham	Manager	Wilderness Safaris	Private sector (Tourism)
Therese Brinkcate	Manager	The Green Trust	NGO
Gareth Coleman	CEO	Tourism KZN	Parastatal (Tourism)
David Daitz	CEO	Western Cape Nature Conservation Board	Parastatal
Tony de Freitas	CEO	Oceanographic Research Institute	Parastatal
Tony Frost	Manager	World Wildlife Fund SA	NGO
Busi Gcabashe	Training manager	SA National Parks	Parastatal
Fanie Greyling	CEO	SA Wildlife College	NGO (Training)
Kas Hamman	Manager	Western Cape Nature Conservation Board	Parastatal
John Hanks	Manager	National Botanical Institute	Parastatal
Brian Huntley	Manager	National Botanical Institute	Parastatal
Greg Knill	Director	Limpopo Department of Environment	Government department
Nonhlanhla Kunene	Training manager	Msinsi Holdings	Private sector (Conservation)
John Ledger	CEO	Endangered Wildlife Trust	NGO
Rob Little	Manager	World Wildlife Fund SA	NGO
Hugh Marshall	Manager	Conservation Corporation Africa	Private sector (Conservation and tourism)
Khulani Mkhize	CEO	Ezemvelo KZN	Parastatal

		Wildlife	
Mavuso Msimang	CEO	SA National Parks	Parastatal
Pierre Neethling	Trustee	KZN Conservation Trust	NGO
Ben Nkosi	Manager	Industrial Development Corporation	Development agency
Pieter Odendaal	Manager	SA Forestry Company Limited	Parastatal (Forestry)
Ricky Pott	Environmental Manager	Mondi	Pvt sector (Forestry)
Clive Poultney	Manager Conservation and Guiding	Theta	Parastatal (Seta)
Malcolm Powell	CEO	Wildlife and Environmental Society of SA	NGO
Trevor Sandwith	Manager	Cape Action Plan for the Environment	NGO
John Scotcher	Environmental Manager	Sappi	Pvt sector (Forestry)
Thilo Thormeyer	Manager	Development Bank of SA	Dev agency
Willem van Riet	Manager	Peace Parks Foundation	NGO



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2005/01/06

«Title» «FirstName» «LastName»
«JobTitle»
«Company»
«Address1»
«Address2»
«City» «PostalCode»
«Country»

Dear «Title» «LastName»

NATURE CONSERVATION MBA

The School of Business at the Pietermaritzburg campus of the university has recently developed an MBA programme. In addition to a general MBA, we currently also offer an MBA in Water Management. This is in line with our strategy of offering specialised (niche) MBAs in those sectors where we perceive a need and in which we have access to specialised skills and expertise, either within the university or in other local institutions.

It is our view that there is an urgent need for a similar programme, aimed at equipping senior managers and executives, in both public and private sector nature conservation agencies, with business management skills to complement their specialist skills and experience, in order to ensure the long-term sustainability of such agencies and of nature conservation per se.

I attach a position paper which provides more details regarding the proposed structure and objectives of the programme for your information and interest.

Before we proceed to launch such a product, however, we wish to test our belief that such a need exists and to assess the likely direct and indirect support therefor. In addition we wish to obtain input from key industry role-players regarding course structure and content, before consulting more widely to assess likely participation levels, preferred delivery modes and willingness/ability to pay.

I shall be pleased, therefore, if you will let me have an hour or so of your time, at your convenience, for an interview to discuss your and your organisation's response to this proposal. I will contact you within the next week or two in order to make arrangements for an interview. In cases where it may be impractical for me to meet with you I am happy to conduct the interview telephonically or by e-mail.

Please do not hesitate to contact me if you have any queries or would like any additional information.

Yours faithfully

Nigel Hemming
Project Manager

PROPOSED NATURE CONSERVATION MBA (NCMBA)

Motivation

Nature conservation agencies in southern Africa and world-wide are under increasing pressure to become self-funding and therefore to operate on a more business-like basis. Most senior managers and executives in the field are either professional protected area managers, or scientists; or are specialists within particular support disciplines (such as human resources, financial management etc).

In our view there is a need for the development of an executive echelon which will, in addition to their specialist qualifications, also possess an understanding of broader aspects of business administration as well as specialized knowledge relating to the particular issues affecting the sustainability of nature conservation agencies.

Programme

The School of Business on the Pietermaritzburg campus of the University of Natal has recently developed an MBA programme which, in addition to a standard or general MBA qualification, will also offer specific, niche qualifications. In this regard we already offer an MBA in Water Management in conjunction with uMgeni Water and hydrologists and other experts from our faculty of Science and Agriculture. This MBA Water Management is the first of its kind in Africa and has already attracted wide interest.

The NCMBA would be the second specialised MBA and would be run in conjunction with the university's Centre for Environment and Development (CEAD) and KZN Wildlife. The NCMBA will complement the Masters in Protected Area Management developed by the CEAD, but will be far more business-oriented. The proposed programme will have three components, spread over three years as follows:

Year 1 – 8 foundation modules of 16cps each. (Total 128cps)

These lecture-based modules are designed to bring participants up to at least graduate level in a range of business- related topics not previously covered in their specialist fields.

- Business environment in SA
- Business statistics
- Accounting
- Marketing management
- Operational management
- Financial management
- Legal environment & business law
- Human resource management & organizational behaviour

Year 2 – 6 advanced modules of 16cps each (Total 96cps)

These modules would involve both lectures and case-studies and would include both general and specialized topics designed to address specific aspects of importance to nature conservation managers, such as:

- Strategic management in nature conservation context
- Economics and sustainable funding of nature conservation
- Environmental law and policy framework (national and international)
- Governance and financial management of public sector nature conservation agencies
- Development, marketing and management of ecotourism facilities and activities and other natural resources
- Project management
- Public private partnerships, communities and nature conservation
- Land restitution and nature conservation

Year 3 – Dissertation (32cps)

Participants would carry out original research in one or more of the specialist fields identified above and produce a report of around 20,000 words.

Delivery modes

The MBA programme is currently available in two delivery modes:

- Part-time - where participants attend evening lectures up to 4 nights per week for each semester.
- Block-release - where participants attend 3 blocks of approximately a week during each semester. Lectures are held during normal working hours.

In both cases participants are assessed on the basis of individual and group assignments as well as written examinations.

Interviewee

Name: _____

Position: _____

Years in position: ____ With organization: ____ In nature conservation: ____

Qualifications: _____

Organisation

Name: _____

Category: Public sector NCA _____ Province _____

Private sector NCA _____

NGO _____ Main field of activity: _____

Training & development needs of nature conservation agencies

What would you consider to be the top 5 training & development requirements for senior managers/executives of nature conservation agencies:

Functional area	Requirement
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

Rank the following possible areas of specialized senior manager/executive training in

- | order of importance: | Rank |
|--|-------------|
| a) Strategic management of nature conservation agencies | _____ |
| b) Economics and sustainable funding of nature conservation agencies | _____ |
| c) Environmental law and policy framework (provincial, national and international) | _____ |
| d) Governance and financial management of nature conservation agencies | _____ |
| e) Development, marketing and management of ecotourism and other natural resources | _____ |
| f) Other aspects (please list) | _____ |

Proposed MBA in Nature Conservation

On a scale of 1 (not valuable) to 5 (extremely valuable):

How would you rate an MBA qualification in commerce and industry? _____

How would you rate an MBA qualification in a nature conservation agency? _____

What other qualification(s) would you consider to be of equal or greater value in respect of senior managers/executives of nature conservation agencies (and why)?

NATURE CONSERVATION MBA

PRELIMINARY SURVEY (QUALITATIVE)

Name	Position	Y in Pos	Y in Org	Y in NC	Qualifications	Organisation	Category	Main activity	Functional area	Training & development needs Ranking					Value of MBA			
										a	b	c	d	e	Other requirement	C & I	NC	Other Qual
Malcolm Powell	CEO	20	20	20	BSc, HDE, BEd, ABP	WESSA	NGO	Environmental education, societal watchdog, environmental publications	1.Mgmt finance 2.Human resources 3.Strat planning & mgmt 4.Social sciences 5.Labour law	3	1	5	2	6	As stated	4	4	NC Experience,
Thilo Thormeyer	Project Manager	14	14	n/a	MSc Agric, MAgEcon	DBSA	Public sector	Infrastructure development finance	1.Human resources 2.Tourism development 3.Resource economics 4.Social science 5.Biology/natural sciences	1	4	5	3	2	Beneficiation of neighbour communities	5	4	BSc
Therese Brinkcote	Manager	3	3	5	MSc (Env Geography)	The Green Trust	NGO	Biodiversity conservation funding	1.Conservation planning & mgmt 2.Org mgmt & human resources 3.Business & fin mgmt 4.Market research & tourism	1	3	5	2	4		5	4	Landscape-level conservation qualification
Brian Hundley	CEO	12	12	35		NBI	Public sector	Botanical research & conservation	1.Human resources 2.Finance 3.Government 4.Public relations 5.Leadership	1	3	4	2	5	1.Situational management & LRA 2.PFMA & King II 3.Law reform process 4.Marketing 5.Strat planning & performance evaluation	4	3	Common-sense, Negotiating skills, Commitment
John Scotcher	Environmental Manager	8	9	20	MSc, PhD	Sappl	Commercial	Forestry, paper & pulp	1.Business in SA 2.Fin mgmt 3.Accounting 4.Project mgmt 5.Marketing mgmt	1	2	5	4	3	Project mgmt	5	5	Environmental management
Busi Gcabashe	Social ecology manager	1.5	6	6	MSc HRDev	SANP	Public sector	Nature conservation	1.Strat planning & leadership 2.Project mgmt	1	1	4	4	3		5	4	Tourism/eco-tourism
Theresa Sowry	Resource Centre Facilitator	0.1	0.1	6	MSc Landscape ecology	SAWC	NGO	NC training	1.Knowledge of existing NCAs 2.Sustainable utilisation 3. Good communication skills 4.Community-based natural resource development 5.Population/landscape approach	2	1	3	5	4		4	4	Hdlp NC/BSc Hons
Kathleen Hay	Long Course Manager	1	1	8	Bach (NC)	SAWC	NGO	Training	1.Conservation practice & development 2.HR 3.Economics/business mgmt 4.Community development/liaison 5.Tourism mgmt	1	3	2	5	4		5	3	1 Conservation 2.Community development 3.HRM 4.BusMgmt/Economics

NATURE CONSERVATION MBA

PRELIMINARY SURVEY (QUALITATIVE)

Name	Position	Y in Pos	Y in Org	Y in NC	Qualifications	Organisation	Category	Main activity	Functional area	Training & development needs Ranking					Value of MBA			
										a	b	c	d	e	Other requirement	C & I	NC	Other Qual
Fanie Greyling	Executive Director	1.5	2.3	2.3	Dip Ed MDP	SAWC	NGO	Training	1.HRM 2.Community development 3.Resource economics 4.Tourism/marketing mgmt 5.Operational mgmt	4	2	1	5	3		4	4	Community mgmt
Tony Frost	CEO	1	1	1	BA Hon STD	WWFSA	NGO	Facilitation of biodiversity & environmental conservation	1.PR & Communications mgmt 2.Marketing 3.Business principles 4.Biodiversity conservation 5.Environmental conservation	1	2	3	4	5	Needs further research	5	5	
Rob Little	Conservation Director	5	5	25	PhD	WWFSA	NGO	Facilitation of biodiversity & environmental conservation	1.PR & Communications mgmt 2.Marketing 3.Business principles 4.Biodiversity conservation 5.Environmental conservation	1	2	3	4	5	Needs further research	5	5	
John Hanks	Director	2	2	36	PhD	Conservation International	NGO	Biodiversity conservation funding	1.Implementation of PAM plans 2.Biodiversity conservation 3.Financial management 4.Ecotourism development 5.Neighbour relations	1	3	5	2	4		4	4	
Totals :		66.1	73.4	166						Averages :					Averages :	5	4	

Annexure 2.1 Mailing list – needs assessment survey

- **Government (national and provincial) nature conservation agencies**
 - Department of Wildlife, Botswana
 - Ministry of Environment and Tourism, Namibia
 - Mpumalanga Department of Environmental Affairs and Tourism
 - Mpumalanga Parks Board
 - National Department of Environmental Affairs and Tourism
 - SA National Parks
 - Tanzania National Parks
 - Western Cape Department of Environmental Affairs and Development Planning
 - Western Cape Nature Conservation Board
 - Eastern Cape Department of Treasury, Economic Affairs, Environment and Tourism
 - Free State Department of Environmental Affairs and Tourism
 - Gauteng Department of Agriculture, Conservation, Environment and Land Affairs
 - KwaZulu-Natal Department of Agriculture and Environmental Affairs
 - Ezemvelo KwaZulu-Natal Wildlife
 - Limpopo Department of Finance, Economic Affairs, Tourism and Environment
 - Department of National Parks and Wildlife, Malawi
 - North West Department of Agriculture, Conservation and Environment
 - Northern Cape Department of Agriculture, Nature Conservation, Environment and Land Reform
 - Department of National Parks and Wildlife Management, Zimbabwe
 - Zambia Wildlife Authority
 - Ministry of Tourism, Mozambique
- **Nature conservation NGOs**
 - Cape Action Plan for the Environment (CAPE)
 - Conservation International

- **KZN Conservation Trust**
- **Peace Parks foundation**
- **SA Wildlife College**
- **The Green Trust**
- **Wildlife and Environmental Society of SA (WESSA)**
- **World Wildlife Fund SA (WWFSA)**
- **Tourism and Hospitality Education and Training Authority**



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The Training and Development Manager
Department of National Parks & Wildlife Management
P O CY140
Harare
Zimbabwe

4 December 2002

Dear Sir/Madam

MBA in Nature Conservation Management

The School of Business, University of Natal, Pietermaritzburg is investigating the need for an MBA (Master of Business Administration) degree aimed specifically at the nature conservation sector in the southern African region.

Attached is a position paper (blue pages) setting out details of the motivation, content, admission requirements, costs and delivery options of the proposed program, together with a detailed questionnaire (orange pages), which is designed to enable us to assess the potential demand. This questionnaire has been sent to more than 30 government departments, parastatals, NGOs and private sector organizations with nature conservation responsibilities and objectives.

I shall be grateful if you will take the time to complete the questionnaire and return it to me, in the enclosed envelope, by 15 January 2003.

If you have any questions concerning the questionnaire or the program, please don't hesitate to contact me.

Yours faithfully

NIGEL HEMMING
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1. Introduction and background
PROPOSED MBA IN NATURE CONSERVATION MANAGEMENT (NCMBA)

1.1 Motivation

Nature conservation agencies in southern Africa and world-wide are under increasing pressure to become self-funding and therefore to operate on a more business-like basis. Most senior managers and executives in the field are either professional protected area managers, or scientists; or are specialists within particular support disciplines (such as human resources, financial management etc).

In our view there is a need for the development of an executive echelon which will, in addition to their specialist qualifications, also possess an understanding of broader aspects of business administration as well as specialized knowledge relating to the particular issues affecting the sustainability of nature conservation agencies.

1.2 Program

The School of Business on the Pietermaritzburg campus of the University of Natal has recently developed an MBA program which, in addition to a general MBA qualification, will also offer a number of specific, niche qualifications. In this regard we already offer an MBA in Water Management in conjunction with uMgeni Water and hydrologists and other experts from our faculty of Science and Agriculture. This MBA in Water Management is the first of its kind in Africa and has already attracted wide interest.

The NCMBA would be the second specialist MBA and would be run in conjunction with the university's Centre for Environment and Development (CEAD) and Ezemvelo KZN Wildlife. The NCMBA will complement the Masters in Protected Area Management currently offered by the CEAD, but will be far more business-oriented. The proposed program will have three components, spread over at least two years as follows:

- Eight foundation modules of 16cps each. (Total 128cps)

These are designed to bring participants up to at least graduate level in a range of business-related topics not previously covered in their specialist fields. Although lecture-based, all modules will also include case-studies, seminars and discussions as well as individual and group assignments.

- Business environment in SA (including economics)
- Business statistics
- Financial & management accounting
- Marketing management
- Operations management
- Financial management
- Legal environment & business law
- Human resource management & organizational behaviour

Completion of these compulsory modules leads to a Postgraduate Diploma in Management (PGDipMgmt)

- Six advanced modules of 16cps each (Total 96cps)

These modules would include both general and specialized topics designed to address specific aspects of importance to nature conservation managers, such as:

- Strategic management of nature conservation agencies (including conservation planning)
- Economics and sustainable funding of nature conservation (including resource economics)
- Environmental law and policy framework (provincial, national and international)
- Governance and financial management of public sector nature conservation agencies (including the Public Finance Management Act)
- Development, marketing and management of ecotourism and other natural resources
- Project management
- Public private partnerships, communities and nature conservation
- Land restitution and nature conservation
- Landscape & community-level conservation

These topics have been identified as a result of a pilot survey carried out to gauge the need for and composition of the NCMBA. At least two of these modules would be compulsory whilst the other four would be electives selected from the remaining modules.

- Dissertation (32cps)

Candidates would be required to carry out original research in one or more of the specialist fields identified above and produce a report of around 20,000 words.

Completion of all three components leads to the Master of Business Administration (MBA) degree.

1.3 Admission requirements

The basic admission requirement to the first year of the MBA program is a Bachelor's degree or equivalent (e.g. B Tech or higher diploma). Consideration will, however, be given to recognition of prior learning and at least 4 years of relevant management experience. Candidates who do not qualify for admission could consider "topping up" their qualification by completing the BBA degree first.

1.4 Delivery modes

The NCMBA program may be available in three delivery modes:

- **Part-time:** where participants attend evening lectures up to 4 nights per week for 13 weeks in each semester.
- **Block-release:** where participants attend 3 blocks of approximately one week each during each semester. Lectures are held during normal working hours. Participants would normally return to their workplace between blocks and would work on assignments in their own time.
- **Full-time:** where participants will attend lectures during normal working hours in a number of blocks during each semester. In between blocks, they will complete individual and group assignments.

In order to meet the needs (and reduce the costs) for candidates coming from further afield, we may consider a fourth alternative, in terms of which there might be fewer, longer blocks of lectures in each semester.

In all cases participants are assessed on the basis of individual and group assignments and tests as well as written examinations.

1.5 Costs

The current cost of the program (tuition fees only) is R1800 for the 1st year modules, R2400 for the 2nd year modules and R5350 for the dissertation. These costs include all notes and handouts but candidates will be required to pay for text books. Candidates from outside Pietermaritzburg will also have to pay travel and accommodation costs. Organisations should note that the program will be registered with SAQA in terms of the NQF and they will therefore be able to claim back portion of these costs against their Skills Development levy contributions. This will of course only apply to SA based organizations.

1.6 Questionnaire

Please take a few minutes to complete the questions set out in parts 2 to 6 hereof and return them to me as soon as possible. Your cooperation will be greatly appreciated.

2. Your organization

The following questions are designed to obtain clear and accurate information about your organization, its location and size and its role in the nature conservation arena. If there is any information you think we should have, which we have not asked for, please attach it to the questionnaire.

2.1 Name of organization

2.2 How is your organization constituted? (Please check the relevant box and add details of responsible department/ministry and province/state)

- ☐ Government dept Ministry _____ Province/state _____
- ☐ Parastatal Ministry _____ Province/state _____
- ☐ NGO
- ☐ Private sector
- ☐ Other (specify) _____

2.3 What are your organisation's nature conservation responsibilities and objectives? (Check one or more as applicable)

- ☐ Nature conservation inside protected areas
 - ☐ Nature conservation outside protected areas
 - ☐ Support of nature conservation agencies
 - ☐ Nature conservation training
 - ☐ Support of community-based nature conservation
 - ☐ Other (specify) _____
-

2.4 Protected area(s) managed

How many protected areas does your organization manage? _____

What is the total land area under such management (hectares)? _____

2.5 How big is your organization?

Please indicate approximate staff complement in each of the following categories:

Executives	_____
Senior managers	_____
Managers	_____
Supervisors	_____
Other personnel	_____
Total	_____

2.6 Addresses & contact details (head office)

Physical address _____
_____ Code _____

Postal address _____
_____ Code _____

e-mail address _____

Phone number(s) _____

Fax number(s) _____

Cell number(s) _____

2.7 Contact person

Name _____

Position _____

Phone _____

Fax _____

Cell _____

e-mail _____

3. Utilisation & demand

The questions in this section are designed to give us an indication of the potential level of demand for the program now (in 2004) and over the following 5 years. Whilst we would appreciate it if you will be as realistic as possible, your answers will in no way commit your organization.

For NGOs and other organizations which are not directly responsible for nature conservation or protected area management, please include details of nature conservation support funding.

Please indicate the currency used if it is not SA Rands or equivalent

3.1 Training and development expenditure

	Current	Planned
Training & development budget	_____	_____
% Allocated to executive development	_____	_____

(Please include all sources of funding, including donor organizations and Skills Development levy recovery)

3.2 MBA in Nature Conservation Management

a) Regardless of availability of funding, how many senior managers would your organization wish to put through this program:

Immediately (2004) _____

Annually thereafter _____

b) Given current financial constraints, how many senior managers will you realistically be able to put through this program:

Immediately (2004) _____

Annually thereafter _____

c) Bearing in mind that tuition fees (& books) will be a relatively small part of the total costs, which will also include travel & accommodation in many instances, to what extent will the cost of tuition fees be a factor? Please indicate the extent to which your answer to b) above will change in response to the following:

Tuition fees are doubled? _____% decrease

Tuition fees are halved? _____% increase

4. Admission requirements

The following question is designed to assess the extent to which lack of appropriate qualifications will affect the numbers of candidates from your organization now and in the future.

4.1 Levels of education

Please indicate the approximate current levels (as percentage) of education of your staff:

	Executive	Senior Mgrs	Managers	Supervisor	Other
Masters degree or higher	_____	_____	_____	_____	_____
Bachelors degree or equivalent	_____	_____	_____	_____	_____
National diploma	_____	_____	_____	_____	_____
No tertiary education	_____	_____	_____	_____	_____
	100%	100%	100%	100%	100%

5. Delivery mode

As stated in the introduction, the NCMBA may be available in three primary delivery modes. This section is designed to assess the demand for each of these modes and/or to identify any other preferable delivery modes.

Please refer to the introductory section for an explanation of the various delivery modes.

5.1 Please rank the delivery modes in order of preference (1 to 3)

Part-time (evening) (Residential) _____

Block-release (daytime) (Non-residential) _____

Full-time (day and evening) (Residential) _____

5.2 Other preferred delivery mode(s)

Bearing in mind that the NCMBA is a full 4-semester, course-based Masters degree, in which discussion, group work, case-studies and field-trips are important components, please indicate any alternative mode(s) of delivery which will more closely meet your organisation's needs.

6. Advanced modules

As indicated in the introduction, it is envisaged that the NCMBA would incorporate a number of advanced modules of specific relevance to nature conservation managers. Please rank the modules listed below in order of importance to your organization (from 1 to 10) and/or add any additional topics which you feel should be included.

- | | |
|---|-------|
| Strategic management of nature conservation agencies | _____ |
| Economics and sustainable funding of nature conservation | _____ |
| Environmental law & policy framework | _____ |
| Governance & financial management of public sector NCAs | _____ |
| Development, marketing & management of ecotourism & other natural resources | _____ |
| Project management | _____ |
| Public-private-partnerships, communities and nature conservation | _____ |
| Land restitution and nature conservation | _____ |
| Landscape & community-level nature conservation | _____ |
| Other topics (specify) | _____ |

7. Other qualification(s)

What alternative qualification(s) are you aware of, which you believe might be as valuable (or more valuable) for your executives and/or senior managers?

Qualification _____ Offered by _____

Qualification _____ Offered by _____

8. Any other comments

Please let us have any other comments, suggestions or criticism regarding this questionnaire and/or the proposed NCMBA program

9. Conclusion and thank you

We are grateful for your cooperation in completing this questionnaire and your interest in the NCMBA program and we undertake to keep you informed of developments and to advise you when the program will be up and running

Kind regards
Nigel Hemming

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NEEDS ASSESSMENT SURVEY SUMMARY OF RESULTS

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NEEDS ASSESSMENT SUI SUMMARY OF RESULTS

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**MBA RESEARCH REPORT
INVESTIGATION INTO DEA**

**NEEDS ASSESSMENT SUI
SUMMARY OF RESULTS**

Date	2.1 Organisation	7 Other qualifications		8 Comment
		Qualifica-tion	Institution	
01-Jan-00	Dept of Environment	N/A		NCMA too narrow, suggest EnvMgmt MBA
06-Feb-03	Endangered Wildlife Trust	N/A		Also need for business experience
16-Jan-03	Min of Env & Tourism	N/A		N/A
17-Dec-02	WWFSA	MSc Cons Biology	UCT	N/A
19-Dec-02	The Green Trust			Useful qualification
27-Mar-03	KZN Wildlife	MSc Cons Biology; ME	UCT; UNP	Very suitable to current & prospective conservation managers
15-Apr-03	Dept of Agric, Cons, Env &			

Totals
Averages

	A	B	C	D	E	F	G	H	I	J
1		CASH FLOW PROJECTION								
2		SCENARIO 1 - MOST LIKELY								
3										
4		Assumptions			Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
5		Number of new students (PG Dip - year 1)	25%	8		10	15	20	25	25
6		PG Dip Modules (year 2)	75%	3			7.50	11.25	15.00	18.75
7		MBA Modules (year 1)	75%	7			2.50	11.25	16.25	21.25
8		MBA Modules (year 2)	25%	3				0.63	2.81	4.06
9		Dissertation (year 1)	50%	1				1.88	9.06	15.00
10		Dissertation (year 2)	50%	1					0.94	4.53
11		Graduates							0.94	5.47
12		Control total (all years plus all graduates)				10.00	25.00	45.00	70.00	95.00
13										
14					R'000	R'000	R'000	R'000	R'000	R'000
15					Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
16		INCOME								
17		Registration fees				2,000	5,000	9,000	13,813	17,719
18		Credit applications		5%		50	75	100	125	125
19		Tuition fees				152,000	315,375	580,938	810,266	947,492
20		Gross revenue				154,050	320,450	590,038	824,203	965,336
21	less	University top slice				-30,810	-64,090	-118,008	-164,841	-193,067
22		Provision for bad debts				-6,162	-12,818	-23,602	-32,968	-38,613
23		Net revenue				117,078	243,542	448,429	626,394	733,655
24										
25	less	VARIABLE EXPENSES								
26		Per module								
27		Lecturer fees - new MBA modules	4					93,600	93,600	93,600
28		Lecturer fees - existing MBA modules	3				35,100	35,100	35,100	35,100
29		Lecturer fees - existing PGDip modules	8			83,200	83,200	83,200	83,200	83,200
30		Printing & stationery				800	1,800	2,000	2,000	2,000
31		Postage & telecomms				0	0	0	0	0
32		Other costs				4,000	9,000	10,000	10,000	10,000
33					0	88,000	129,100	223,900	223,900	223,900
34		Per student (per module)								
35		Registration (per student)				200	500	900	1,381	1,772
36		Printing & stationery				2,000	4,000	6,906	9,430	10,918
37		Postage & telecomms				1,200	2,400	4,144	5,658	6,551
38		Marking fees (excludes dissertation)				8,000	16,000	27,438	36,719	41,719
39		External examiners' fees				320	640	1,098	1,469	1,669
40		Supervisor fees (dissertation)				0	0	1,875	10,000	19,531
41					0	11,720	23,540	42,360	64,656	82,159
42	=	CONTRIBUTION			0	17,358	90,902	182,169	337,838	427,596
43	less	FIXED EXPENSES								
44		Salaries - Director				50,000	100,000	100,000	100,000	100,000
45		- Administrator			0	0	40,000	40,000	40,000	40,000
46		Printing & stationery			5,000	5,000	5,000	5,000	5,000	5,000
47		Postage & telecomms			5,000	5,000	5,000	5,000	5,000	5,000
48		Equipment			0	0	0	0	0	0
49		Marketing & advertising			25,000	25,000	25,000	25,000	25,000	25,000
50		Other costs			0	0	0	0	0	0
51					35,000	85,000	175,000	175,000	175,000	175,000
52	=	NET INCOME (EXPENSES)			-35,000	-67,642	-84,098	7,169	162,838	252,596
53	-	University bottom slice			0	0	0	-2,867	-65,135	-101,038
54	=	NET CASH FLOW FOR THE PERIOD			-35,000	-67,642	-84,098	4,301	97,703	151,558
55	+	OPENING CASH BALANCE				-35,000	-102,642	-186,740	-182,439	-84,736
56	=	CLOSING CASH BALANCE			-35,000	-102,642	-186,740	-182,439	-84,736	66,822
57										
58	@	REQUIRED RATE OF RETURN			15.00%					
59	=	NET PRESENT VALUE OF CASH FLOWS			R -20,320.37					
60	=	INTERNAL RATE OF RETURN			10%					
61										
62										
63		ADDITIONAL CONTRIBUTION TO UNIVERSITY INCOME								
64		Top-slice			0	30,810	64,090	118,008	164,841	193,067
65		Bottom-slice			0	0	0	2,867	65,135	101,038
66		State subsidy			0	0	45,000	253,125	537,188	787,500
67					0	30,810	109,090	374,000	767,163	1,081,606

A	B	C	D	E	F	G	H	I	J
1	CASH FLOW PROJECTION								
2	SCENARIO 2 - WORST CASE								
3									
4	Assumptions			Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
5	Number of new students (PG Dip - year 1)	25%	8		7	10	10	10	10
6	PG Dip Modules (year 2)	75%	3			5.25	7.50	7.50	7.50
7	MBA Modules (year 1)	75%	7			1.75	7.75	10.00	10.00
8	MBA Modules (year 2)	25%	3				0.44	1.94	2.50
9	Dissertation (year 1)	50%	1				1.31	6.25	9.44
10	Dissertation (year 2)	50%	1					0.66	3.13
11	Graduates							0.66	3.78
12	Control total (all years plus all graduates)				7.00	17.00	27.00	37.00	47.00
13									
14				R'000	R'000	R'000	R'000	R'000	R'000
15				Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
16	INCOME								
17	Registration fees				1,400	3,400	5,400	7,269	8,513
18	Credit applications		5%		35	50	50	50	50
19	Tuition fees				106,400	239,375	425,591	566,520	690,969
20	Gross revenue				107,835	242,825	431,041	573,839	699,531
21	less University top slice				-21,567	-48,565	-86,208	-114,768	-139,906
22	Provision for bad debts				-4,313	-9,713	-17,242	-22,954	-27,981
23	Net revenue				81,955	184,547	327,591	436,118	531,644
24									
25	less VARIABLE EXPENSES								
26	Per module								
27	Lecturer fees - new MBA modules	4					93,600	93,600	93,600
28	Lecturer fees - existing MBA modules	3				35,100	35,100	35,100	35,100
29	Lecturer fees - existing PGDip modules	8			83,200	83,200	83,200	83,200	83,200
30	Printing & stationery				800	1,800	2,000	2,000	2,000
31	Postage & telecomms				0	0	0	0	0
32	Other costs				4,000	9,000	10,000	10,000	10,000
33				0	88,000	129,100	223,900	223,900	223,900
34	Per student (per module)								
35	Registration (per student)				200	500	900	1,381	1,772
36	Printing & stationery				2,000	3,700	5,984	7,630	7,814
37	Postage & telecomms				1,200	2,220	3,591	4,578	4,688
38	Marking fees (excludes dissertation)				8,000	14,800	23,806	29,831	30,000
39	External examiners' fees				320	592	952	1,193	1,200
40	Supervisor fees (dissertation)				0	0	1,875	10,000	19,531
41				0	11,720	21,812	37,109	54,615	65,006
42	= CONTRIBUTION			0	-17,765	33,635	66,582	157,603	242,738
43	less FIXED EXPENSES								
44	Salaries - Director				50,000	100,000	100,000	100,000	100,000
45	- Administrator			0	0	40,000	40,000	40,000	40,000
46	Printing & stationery			5,000	5,000	5,000	5,000	5,000	5,000
47	Postage & telecomms			5,000	5,000	5,000	5,000	5,000	5,000
48	Equipment			0	0	0	0	0	0
49	Marketing & advertising			25,000	25,000	25,000	25,000	25,000	25,000
50	Other costs			0	0	0	0	0	0
51				35,000	85,000	175,000	175,000	175,000	175,000
52	= NET INCOME (EXPENSES)			-35,000	-102,765	-141,365	-108,418	-17,397	67,738
53	- University bottom slice			0	0	0	0	0	-27,095
54	= NET CASH FLOW FOR THE PERIOD			-35,000	-102,765	-141,365	-108,418	-17,397	40,643
55	+ OPENING CASH BALANCE				-35,000	-137,765	-279,130	-387,548	-404,945
56	= CLOSING CASH BALANCE			-35,000	-137,765	-279,130	-387,548	-404,945	-364,302
57									
58	@ REQUIRED RATE OF RETURN			15.00%					
59	= NET PRESENT VALUE OF CASH FLOWS			R -254,156.35					
60	= INTERNAL RATE OF RETURN			#NUM!					
61									
62									
63	ADDITIONAL CONTRIBUTION TO UNIVERSITY INCOME								
64	Top-slice			0	21,567	48,565	86,208	114,768	139,906
65	Bottom-slice			0	0	0	0	0	27,095
66	State subsidy			0	0	31,500	190,125	424,688	585,000
67				0	21,567	80,065	276,333	539,455	752,002

	A	B	C	D	E	F	G	H	I	J
1		CASH FLOW PROJECTION								
2		SCENARIO 3 - BEST CASE								
3										
4		Assumptions			Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
5		Number of new students (PG Dip - year 1)	25%	8		25	30	35	50	50
6		PG Dip Modules (year 2)	75%	3			18.75	22.50	26.25	37.50
7		MBA Modules (year 1)	75%	7			6.25	26.25	31.25	38.75
8		MBA Modules (year 2)	25%	3				1.56	6.56	7.81
9		Dissertation (year 1)	50%	1				4.69	21.25	30.00
10		Dissertation (year 2)	50%	1					2.34	10.63
11		Graduates							2.34	12.97
12		Control total (all years plus all graduates)				25.00	55.00	90.00	140.00	190.00
13										
14					R'000	R'000	R'000	R'000	R'000	R'000
15					Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
16		INCOME								
17		Registration fees				5,000	11,000	18,000	27,531	34,938
18		Credit applications		5%		125	150	175	250	250
19		Tuition fees				380,000	543,375	825,672	1,257,836	1,397,172
20		Gross revenue				385,125	554,525	843,847	1,285,617	1,432,359
21	less	University top slice				-77,025	-110,905	-168,769	-257,123	-286,472
22		Provision for bad debts				-15,405	-22,181	-33,754	-51,425	-57,294
23		Net revenue				292,695	421,439	641,324	977,069	1,088,593
24										
25	less	VARIABLE EXPENSES								
26		Per module								
27		Lecturer fees - new MBA modules	4					93,600	93,600	93,600
28		Lecturer fees - existing MBA modules	3				35,100	35,100	35,100	35,100
29		Lecturer fees - existing PGDip modules	8			83,200	83,200	83,200	83,200	83,200
30		Printing & stationery				800	1,800	2,000	2,000	2,000
31		Postage & telecomms				0	0	0	0	0
32		Other costs				4,000	9,000	10,000	10,000	10,000
33					0	88,000	129,100	223,900	223,900	223,900
34		Per student (per module)								
35		Registration (per student)				200	500	900	1,381	1,772
36		Printing & stationery				2,000	5,500	10,516	13,520	16,195
37		Postage & telecomms				1,200	3,300	6,309	8,112	9,717
38		Marking fees (excludes dissertation)				8,000	22,000	41,594	51,719	60,719
39		External examiners' fees				320	880	1,664	2,069	2,429
40		Supervisor fees (dissertation)				0	0	1,875	10,000	19,531
41					0	11,720	32,180	62,858	86,800	110,363
42	=	CONTRIBUTION			0	192,975	260,159	354,566	666,369	754,330
43	less	FIXED EXPENSES								
44		Salaries - Director				50,000	100,000	100,000	100,000	100,000
45		- Administrator			0	0	40,000	40,000	40,000	40,000
46		Printing & stationery			5,000	5,000	5,000	5,000	5,000	5,000
47		Postage & telecomms			5,000	5,000	5,000	5,000	5,000	5,000
48		Equipment			0	0	0	0	0	0
49		Marketing & advertising			25,000	25,000	25,000	25,000	25,000	25,000
50		Other costs			0	0	0	0	0	0
51					35,000	85,000	175,000	175,000	175,000	175,000
52	=	NET INCOME (EXPENSES)			-35,000	107,975	85,159	179,566	491,369	579,330
53	-	University bottom slice			0	-43,190	-34,064	-71,826	-196,548	-231,732
54	=	NET CASH FLOW FOR THE PERIOD			-35,000	64,785	51,095	107,740	294,821	347,598
55	+	OPENING CASH BALANCE				-35,000	29,785	80,880	188,620	483,442
56	=	CLOSING CASH BALANCE			-35,000	29,785	80,880	188,620	483,442	831,040
57										
58	@	REQUIRED RATE OF RETURN			15.00%					
59	=	NET PRESENT VALUE OF CASH FLOWS			R 410,603.12					
60	=	INTERNAL RATE OF RETURN			206%					
61										
62										
63		ADDITIONAL CONTRIBUTION TO UNIVERSITY INCOME								
64		Top-slice			0	77,025	110,905	168,769	257,123	286,472
65		Bottom-slice			0	43,190	34,064	71,826	196,548	231,732
66		State subsidy			0	0	112,500	523,125	807,188	1,102,500
67					0	120,215	257,469	763,721	1,260,859	1,620,704

	A	B	C	D	E	F	G	H	I	J
1		MBA RESEARCH REPORT								
2		MBA IN NATURE CONSERVATION MANAGEMENT								
3		FINANCIAL VIABILITY ASSESSMENT								
4										
5		INPUT SHEET								
6										
7	1	INCOME	R							
8		Current fee income (per module)								
9		Registration fee (per student)	200							
10		Credit applications	200							
11		PG Dip level	1,900							
12		Integrated conservation project	2,550		Add cost of field trips + 24% "mark-up" (top-slice 20%, bad debts 4%)					
13		MBA level	2,550							
14		Dissertation (1st year)	3,550							
15		Dissertation (subsequent year)	450							
16										
17	2	EXPENSES	R							
18	a)	Start-up costs (once-off)								
19		Marketing	30,000							
20		Research								
21		Administration								
22		Registration								
23		Other			Details:					
24										
25	b)	Variable costs (per student per module)								
26		Printing & stationery	25							
27		Registration	20							
28		Postage & telecommunication	15							
29		Marking fees	100							
30		Credit applications	100							
31		Externalling								
32		External examiner fees	4							
33		Supervisor fees (dissertation)	1,000							
34										
35	c)	Semi-variable costs (per module)								
36		Additional lecturer fees								
37		Existing PG Dip modules	10,400		R400/hr x 52 / 2					
38		Existing MBA modules	11,700		R450/hr x 52 / 2					
39		New MBA modules	23,400							
40		Externalling (moderation)	107							
41		Externalling (assignments)	127							
42		Venue costs	0							
43		Printing & stationery	100							
44		Postage & telecomms	0							
45		Other additional costs	500		Details: Books & journals					
46										
47	d)	Fixed costs (additional) (per annum)								
48		Salary - director	100,000		(eg New director/secretarial staff)					
49		- administrator	40,000							
50		Printing & stationery	5,000							
51		Postage & telecomms	5,000							
52		Equipment	0		(eg Rental/depreciation on computers etc)					
53		Marketing & advertising	25,000							
54		Other costs	0		Details:					
55										
56	e)	Fixed costs (existing) (per annum)			(On what basis would existing costs be allocated?)					
57		Salaries & wages	0							
58		Printing & stationery	0							
59		Postage & telecomms	0							
60		Equipment	0							
61		Marketing & advertising	0							
62		Other costs	0		Details:					

	A	B	C	D	E	F	G	H	I	J
63										
64	f)	University cut								
65		University top-slice	20%		Basis: On revenue					
66		University bottom-slice	40%		Basis: On profit					
67		Subsidy - PGDip	18000	R						
68		Subsidy - MBA	27000	R						
69										
70	3	ASSUMPTIONS								
71	a)	Student enrolments	Yr1	Yr2	Yr3	Yr4	Yr5			
72		Most likely	15	20	25	25	25			
73		Optimistic	25	30	35	50	50			
74		Pessimistic	7	10	10	10	10			
75										
76			Modules		Ratio					
77	b)	Student progression rates	Yr 1	Yr 2	1 year	2 years				
78		PGDip	8	3	25%	75%				
79		MBA	7	3	75%	25%				
80		Dissertation	1	1	50%	50%				
81										
82	c)	Provision for bad debts	4%							
83										
84	d)	Credit application rate	5%							
85										
86	d)	Required rate of return								
87		Weighted average cost of capital	15.0%							
88		Risk factor	0.0%							
89			15.0%							