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The identification and quantification of *best practice* in innovative financing for biodiversity conservation and sustainable use in Namibia

Michael N Humavindu and Jonathan I Barnes

Environmental Economics Unit
Directorate of Environmental Affairs
Ministry of Environment and Tourism
Private Bag 13306, Windhoek, Namibia
Tel: + 264 (0)61 249 015 Fax: + 264 (0)61 240 339
E-mail: contact@met.gov.na
http://www.met.gov.na

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Cover illustration by Helga Hoveka (hoveka@absamail.co.za)

Contact details

Michael N Humavindu
PO Box Bag 24672
Windhoek
Namibia
E-mail: m_humavindu@hotmail.com

Dr Jonathan I Barnes
Design & Development Services
PO Box 25943
Windhoek
Namibia
E-mail: jibarnes@iafrica.com.na

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Abbreviations

CANAM	Conservancy Association of Namibia
CBD	Convention on Biological Diversity
CBNRM	community-based natural resource management
Danida	Danish International Development Aid
DFID	Department for International Development
GEF	Global Environmental Facility
GTZ	Gesellschaft für Technische Zusammenarbeit
IFM	innovative financing mechanism
KfW	Kredietanstalt für Wiederaufbau
MET	Ministry of Environment and Tourism
MTEF	Medium-term Expenditure Framework
NACOMA	Namibian Coast Conservation Management (Project)
NGO	non-governmental organisation
NNF	Namibia Nature Foundation
Sida	Swedish International Development Aid
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
USAID	United States Agency for International Development
WILD	Wildlife Integration Livelihood Diversification (Project)

Abstract

Innovative financing mechanisms (IFMs) have significant potential to help mitigate environmental problems and fund conservation projects in Namibia. This paper assesses the development of IFMs in Namibia and advocates their adaptation where feasible. It describes the various types of financing utilised for biodiversity conservation in Namibia, and explains barriers and financing gaps that mark biodiversity financing today.

Government allocations as well as donor/development partner financing are the prime source of funding for biodiversity in Namibia. Cooperation between these two sources of finance through the leveraging of funds is a common feature. However, in real terms, Government allocations have decreased over the last four years, while donor/development partner funding has increased.

Donor/development-partner assistance plays a major role in funding the Government's Community-based Natural Resource Management (CBNRM) Programme. The latest figures available show that total Government funding to CBNRM between 2000–2003 decreased in real terms.

Government allocations are enhanced by two statutory finds: the current Game Product Trust Fund, and the Environmental Investment Fund soon to be launched. The Ministry of Environment and Tourism (MET) has also succeeded in its request to the Treasury to retain a percentage of park entrance fees (25%) for direct park maintenance and infrastructure financing. Various other environmental funds run by private and other public agents provide financing for community-based and non-governmental organisations to engage in capacity-building as well as local conservation projects.

Newer financing instruments are also beginning to emerge, with a proposed partnership between ComMark Trust and the Development Bank of Namibia to pilot a loan instrument to finance Black Economic Empowerment deals in the tourism sector. Although new instruments are welcomed, whether the focus should be on adequacy of current financing or the promotion of new instruments remains a central issue. Using the financing needs of Namibia's protected area system vis-à-vis its current funding allocations as a proxy, current financing is inadequate.

Thus, a principal recommendation of this work is a call to realign Government and donor/development-partner allocations with the long-term financing estimates of the country's biodiversity asset base. Further recommendations include the need to increase park fees to optimal levels, and investigate the feasibility of various 'green' levies as a mechanism by means of which potential revenue for biodiversity financing in Namibia can be increased. Investing in research and strengthening the MET's economic research function will further enhance the potential to introduce feasible and sustainable IFMs for biodiversity.

Keywords*: innovative financing mechanism, IFM, biodiversity*

1. INTRODUCTION

1.1 Aim and terms of reference

The aim of this paper is to present an overview of findings on the development of innovative financing mechanisms (IFMs) in support of conservation and sustainable management in Namibia.

The specific terms of reference for the study are to –

(a) investigate the extent to which Government offices, ministries and agencies, non-governmental organisations (NGOs), local authorities, and grass-roots organisations have mobilised and can continue to mobilise funds and implement projects and activities related to the country's Biodiversity Strategy and Action Plan
(b) show the funding trend – in both nominal and real figures – from each of the four sources in (a) over the last four years, and explain any variance in those figures
(c) assess and document the extent to which innovative case studies on community-based natural resource management (CBNRM) have assisted in mobilising financial resources for biodiversity in the country
(d) examine the extent to which the principle of 'The user/polluter pays' has been and can be used to leverage financial resources for biodiversity conservation in the country
(e) explore the extent to which different conservation finance mechanisms[1] can be applied, and describe some successful examples, if any, and
(f) based on (a) to (f) above, develop a financing structure for biodiversity conservation and sustainable use in the country.

1.2 Methodology

The preparation phase of this work included exploratory meetings/consultations with key informants from the MET, the private sector, and other strategic institutions/organisations, as well as desktop research.

2. BACKGROUND AND STRUCTURE OF THE PAPER

The generation of new and additional financial resources to support national biodiversity strategies constitutes a key parameter of the Convention on Biological Diversity (CBD). More specifically, Article 20 of the Convention refers to the responsibilities of each contracting party to provide –

> … financial support and incentives in respect of those national activities which are intended to achieve the objectives of this Convention, in accordance with its national plans, priorities and programme.

It also calls on developed-country parties to provide new and additional financial resources to developing country parties in support of their efforts to implement the Convention. In addition, Article 21 calls on parties to strengthen existing financial institutions in support of the Convention. Moreover, other articles in the CBD make similar calls for the need to provide developing countries with the funds they need to implement the Convention. Another aspect is set out in Article 29, which establishes the Global Environment Facility on an

[1] Different conservation finance mechanisms are described on http://guide.conservationfinance.org.

interim basis. Other articles, such as Article 8 (m) and 9 (e), with respect to in situ and ex situ conservation, respectively, also call for new and additional financial resources.

Despite realising these aspects of the Convention, and despite promoting the need for mobilising adequate finance for biodiversity, obtaining sufficient funding has proved to be a challenge – across the world.[2] The situation is driven mainly by the perceived low financial and political value of biodiversity, which is further underlined by non-existent or ill-defined property rights, and by insufficient knowledge about biodiversity and how to measure its socio-economic value. In addition, there is the false perception that the protection of biodiversity – unlike sanitation, air pollution control, etc. – does not directly affect the daily lives of increasingly urban populations. Other contributing factors are multiple institutional and enforcement failures, and finally, often perverse or conflicting incentives.[3]

Although biodiversity has a cost, practically, it is very difficult to estimate these at a global level. Recent work by Deke (2004) summarises a selection of these estimates of the global cost of biodiversity, as well as current financing estimates levels. According to Deke (ibid.), the funding needed per annum to finance the worldwide protection of natural areas lies within a range of US$0.5 billion to about US$150 billion. Currently, levels of financing per annum amount to between US$200 million and US$900 million from official aid, and another US$200 from private sources. Deke's (ibid.) findings suggest that the financial resources provided by developed countries each year fall short of the amounts required. However, Deke (ibid.) also cautions against too much reliance on his findings.

In a new World Bank (2006) publication entitled *Where is the wealth of nations?*, the valuation of protected areas is carried out using a quasi-opportunity cost, i.e. the protected area is valued as if it were cropland or pastureland, whichever has the lower value. This is not valuing total biodiversity per se, but it can be a useful indicator. For a total of 120 countries (including Namibia), the World Bank (ibid.) estimates the protected area value per capita for the year 2000 at US$63,182.29 (N$429,639.57 at the average US$/N$ exchange rate in 2000). The protected area value for Namibia, specifically, is US$260 per capita (N$1,768 at the same exchange rates).[4] This finding is consistent with Turpie et al. (2004), who argue that the opportunity costs of Namibian protected areas should be low, as most of the country is desert – with little or no agricultural value.

This paper begins by defining the concept *innovative financing mechanism* and the key problems such mechanisms seek to overcome. A typology of IFMs is then presented, followed by examples of how such mechanisms are currently developed in Namibia. Policy frameworks, regulations and enabling factors are dealt with next, identifying some factors that influence the effectiveness of IFMs. Finally, we present a conclusion in the form of preliminary lessons learnt, and we make recommendations as to further steps that would advance the development of IFMs in Namibia.

3. INNOVATIVE FINANCING MECHANISMS: DEFINITION AND TAXONOMY

Taking Verweij (2002:2) as a guide, an *innovative financing mechanism* can be defined as –

[2] Keipi (2002)
[3] Keipi (2002); Bayon et al. (1997)
[4] See World Bank (2006). The estimated opportunity cost does not include other costs such as human resource costs, logistics costs, or other fixed costs.

> *... an institutional arrangement that results in the transfer of new or increased financial resources from those willing to pay for sustainable produced goods and/or ecological services, to those willing to provide these goods and services in turn.*

The overall goal of developing IFMs is to help natural resource managers add financial value to the environment, based on the benefits they generate: thus increasing the incentives to conserve and restore natural resources. There are two different ways in which an IFM can be effective. On the one hand, an IFM can 'capture' the non-market values of ecological services through an economic transaction, thus creating new markets. On the other hand, an IFM can capitalise on the non-marketed portion of people's willingness to pay for environmental goods, thereby increasing the market value of environmental goods that are produced in a sustainable way.[5]

Verweij (2002) differentiates between *IFMs* and *incentive measures*. Incentive measures include instituting economic and regulatory measures, providing information, and strengthening institutional capacity. Whilst incentive measures may deliver a minor share of the total required finance, IFMs comprise a wide range of market mechanisms that finance the desired outputs either completely or to a large extent. An overlap between incentive measures and IFMs can be identified in the area of economic incentives (taxes, charges, tradable use rights, and subsidies) and regulatory measures – as far as these result in compensation payments (e.g. development or access restrictions, and compensation for negative environmental impacts).

A simpler analysis by Bayon (2001:1) proposes a division of IFMs into three groups:

- Those that help protect environmental areas as providers of "public goods or services"
- Those that help protect environmental resources as providers of "private goods or services" (as businesses), and
- Those aimed at correcting the incentive structure to encourage the conservation of biosystem resources.

Table 1 below provides a list of IFMs that might fall into each of these categories. In addition, there is a special category related to creating markets for ecosystem services such as water filtration and carbon sequestration. This category is separated from the other three because many of these goods and services are currently treated as public goods, though with the proper mix of incentives and Government regulation, they could become markets of their own.

[5] Verweij (2002)

Table 1: A taxonomy of tools to finance conservation[6]

Innovative financing mechanisms		
As providers of public goods or services	**As providers of private goods or services (As businesses)**	**Aimed at correcting the incentive structure**
• Taxation	• Credits and loans to 'green' businesses (export credit)	• Tax incentives
• Grants and subsidies	• Venture capital (equity) for 'green' businesses	• Removing damaging subsidies
• Loans from multilaterals, e.g. development banks	• Investment guarantees for 'green' businesses	• Environmental fines
• Debt-related instruments	• Resource extraction rents/severance fees	• Tradable permits/development rights/extraction quotas
• Loans from capital markets	• Entry fees/concessions	• Performance bonds
• Philanthropy	• Securitisation	• Deposit-refund schemes
New markets: Ecosystems services (e.g. carbon sequestration, water filtration)		

Source: Bayon (2001)

4. EXISTING IFMS IN NAMIBIA

The most common sources of biodiversity funding in Namibia are –

- Government allocations from Treasury to the MET (i.e. tax revenues)
- grants through the Global Environmental Facility (GEF) and official development aid from bilateral aid agency donors or international NGOs (i.e. bilateral or multilateral funds)
- financing of conservation through the local private sector, NGOs, the community, and municipalities or councils, and
- revenues derived from payments for environmental services such as park and licence fees, and proceeds from the sale of live game.

4.1 Government budget financing

Government allocations to the MET and an analysis of them are presented in Table 2 below.

Table 2: Government allocations to the MET, 2002/3–2006/7 budget periods[7]

Allocation source (N$'000)	2002/3	2003/4	2004/5	2005/6	2006/7
Medium-term Expenditure Framework (MTEF) ceiling	128,684	147,030	131,891	140,507	160,641
Development Budget	9,583	6,697	3,450	3,435	7,371
Total	**138,267**	**153,727**	**135,341**	**143,942**	**168,012**

Source: MET (2005)

[6] For definitions of IMFs, see Appendix A.
[7] Note that the MTEF and Development Budget also include development partners such as Sida.

Table 3: Analysis of State funding, 2002/3–2005/6 budget periods[8]

State funding	2002/3	2003/4	2004/5	2005/6
Real values – MTEF ceiling	119,530	127,455	109,780	114,365
Real values – Development Budget	8,901	5,805	2,872	2,796
Real values – Total State Revenue Fund	128,431	133,260	112,651	117,161
Percentage decrease/increase – Nominal total budget 2002/3–2005/6 (Total State Revenue Fund)				4.10
Percentage decrease/increase – Real total budget 2002/3–2005/6 (Total State Revenue Fund)				–8.78
Percentage decrease/increase – Nominal total budget 2002/3–2005/6 (MTEF ceiling)				9.19
Percentage decrease/increase – Real total budget 2002/3–2005/6 (MTEF ceiling)				–4.32

Source: Authors' own calculations

Data on Government allocations to the MET show that allocations averaged N$140 million (US$22 million) per annum for the past four years.[9] The analysis further reveals that, for the 2002/3–2005/6 budget period, Government allocations increased by 9% in nominal terms. When one takes inflation into account, however, Government allocations to the MET are revealed to have decreased by 4.32% in real terms. This slight decrease is driven by the fact the environment sector competes with other, higher-profile social needs such as health, education, and other social services. Nonetheless, the decrease is not high enough to cause concern.

A notable feature of the Government allocations in Table 2 is the very low amount allocated to capital. Most of the allocation is for recurrent expenditure, and around half of this is for expenditure on staff. The low capital investment is cause for concern, and suggests that the considerable asset base under the MET's control is being run down.

Associated with Government expenditure on conservation is the revenue that Government derives from the use of the biodiversity resources. Thus, aside from general tax revenues that are allocated to conservation, Government specifically derives revenues from park user fees and licences for fishing, wildlife activities and other activities that use natural resources. Even though the agencies managing biodiversity generate this revenue, the revenue has generally been redirected to Treasury – and has not been earmarked for conservation or development of the natural resources that generate it. Recently, however, the MET succeeded in its bid to retain 25% of park user fees for park maintenance and biodiversity conservation.

[8] Real values are computed at 2001 prices. The Consumer Price Index (CPI) figures were obtained from the Central Bank's website, www.bon.com.na on 22 February 2006. Real values were obtained by dividing each nominal value by the corresponding price index number, and multiplying the results by 100.
[9] At the time of writing, the N$/US$ exchange rate was N$6.36:US$1.

4.2 Grants through the GEF and official development aid from bilateral donors or international NGOs

Development partners from international environmental NGOs and bilateral donors are very active in financing conservation projects and sustainable community development programmes in Namibia. The principal IFM, based on international agreements, has been the GEF. The total funding of environmental projects in Namibia by development partners for 2002/3–2006/7 is presented in Table 4 below, with an analysis of funding presented in Table 5.

Table 4: International development-partner projects, 2002/3–2006/7 budget periods

Development partner	Title of project	Budget year (N$'000)				
		2002/3	2003/4	2004/5	2005/6	2006/7
Finland	Finland Forestry Programme	4,800	5,765	3,480	4,322	---
European Union	European Tourism Development Programme	10,590	8,500	11,424	---	---
Kredietanstalt für Wiederaufbau (KfW) and Gesellschaft für Technische Zusammenarbeit (GTZ), Germany	Biodiversity Programme	1,503	2,114	1,200	750	---
KfW and GTZ, Germany	National Programme to Combat Desertification	2,210	1,712	---	---	---
United States Agency for International Development (USAID), United States	Living in a Finite Environment (LIFE) Program on CBNRM	9,120	16,000	22,100	13,000	13,000
Deutscher Entwicklungsdienst (DED/German Development Service), Germany	Community forestry	1,920	960	4,096	---	---
World Wife Fund for Nature (WWF)	Rhino conservation, Etosha National Park	---	174	---	---	---
Save the Rhino International	Save the Rhino International	153	---	---	---	---
Southern African Development Community (SADC)	SADC Rhino Programme	---	141	---	---	---
Food and Agriculture Organisation of the United Nations (FAO)	Domestication of indigenous fruit trees	---	3,840	---	---	---
FAO	Support to the National Forest Programme	---	510	---	---	---
GTZ, Germany, via SADC	Community forestry	392	1,200	1,600	---	---
United Nations Development Programme (UNDP)	Enhancing strategies and capacity of communities affected by desertification	2,252	---	---	---	---
Finland	Infocom Project	2,390	2,250	---	---	---
Finland	Bush encroachment study	954	954	---	---	---

Development partner	Title of project	Budget year (N$'000)				
		2002/3	2003/4	2004/5	2005/6	2006/7
Swedish International Development Agency (Sida), Sweden	Environmental economics	1,130	1,335	1,332	575	---
Department for International Development (DFID), United Kingdom	Wildlife Integration Livelihood Diversification (WILD) Project	3,530	3,530	---	---	---
UNDP	Enabling Activity for Climate Change Programme	525	298	642	---	---
KfW and GTZ, Germany	Strengthening the capacity of the MET in the field of sustainable natural resource management	---	---	---	4,250	3,500
KfW, Germany	North-eastern parks (Babwata, Mudumu, and Mamili National Parks)	---	---	---	---	6,732
Danish International Development Agency (Danida), Denmark	Clean Production Technology	---	---	---	3,400	3,400
GEF via the UNDP	National Capacity Needs Self-assessments	---	657	509	---	---
GEF via the World Bank with co-financing from the Fonds Français pour l'Environnement Mondial (FFEM), France	Integrated Community-based Ecosystem Management (ICEMA) Project on CBNRM	---	---	8,703	14,984	12,106
GEF via the World Bank	Namibian Coast Conservation Management (NACOMA) Project (PDF-B and full phase)	---	---	1,190	7,855	7,153
GEF via the UNDP, with co-financing from the UNDP	Strengthening the Protected Area Network (SPAN) Project	---	1,118	1,247	1,624	9,775
GEF via the UNDP	Country Partnership Programme for sustainable land management	---	728	1,451	9,350	9,350
GEF via the United Nations Environment Programme (UNEP)	Desert Margins Project on sustainable land and natural resource management in the Kalahari Desert	---	847	847	257	257
GEF via the World Bank	The Country Pilot Partnership/Promoting Environmental Sustainability through Improved Land Use Planning (CPP/PESILUP) project on sustainable land use planning	---	---	165	333	333
Conservation International (under negotiation)	Proclamation of the Sperrgebiet National Park	---	---	---	400	860

Development partner	Title of project	Budget year (N$'000)				
		2002/3	2003/4	2004/5	2005/6	2006/7
Norway	Environmental Legislation Project	---	250	---	---	---
Peace Parks Foundation (under negotiation)	Transfrontier park development	---	---	---	1,300	2,200
GEF via the UNDP and the International Union for the Conservation of Nature and Natural Resources	Southern African Biodiversity Support Programme	587	138	92	223	---
Total (N$ – nominal)[10]		**41,469**	**52,883**	**59,986**	**62,400**	**68,666**

Source: MET data

Table 5: Analysis of development-partner funding, 2002/3–2005/6 budget periods

Item	2002/3	2003/4	2004/5	2005/6
Real values of total	39,064.32	45,962.00	50,005.97	50,971.72
Percentage decrease/increase – Nominal total budget 2002/3–2005/6				48.90
Percentage decrease/increase – Real total budget 2002/3–2005/6				30.48

Source: Authors' own calculations

As can be inferred from Table 5 above, development-partner funding between 2002/3 and 2005/6 shows an increase of 48% in nominal terms, and of 30% in real terms. Not only are development partners a formidable source of funding of biodiversity-related projects in Namibia, they are also involved in designing and implementing programmes that deliver environmental goods and services financed by such grants.

The data also reveals that cooperation, in terms of funds leveraging, is a common strategy amongst development partners. A notable example is the Strengthening the Protected Area Network (SPAN) Project, whose objective is to increase the effectiveness of managing the national protected area network for biodiversity conservation. Financing the project are the MET, the GEF, the United States Agency for International Development (USAID), the Kredietanstalt für Wiederaufbau (KfW), the World Wide Fund for Nature in the United Kingdom (WWF–UK), and the Namdeb Diamond Corporation (Pty) Ltd.

In general, development partners spent around N$51 million (US$8.5 million) annually on environmental projects in Namibia during the years reviewed. Of primary significance is their involvement in funding CBNRM. This is explored further in the next section.

[10] Note: Not all programmes are run under the MET. The Ministry of Agriculture, Water and Forestry, the Ministry of Regional and Local Government, Housing and Rural Development, and the Ministry of Fisheries and Marine Resources are also partners in some of these projects.

4.3 Funding of CBRNM in Namibia

Tables 4 and 5 above contain data on development-partner funding that supports CBNRM. This deserves special attention since it goes hand in hand with investments from local NGOs, the communities themselves, and the private sector. Table 6 below shows CBNRM funding by development partners over a 13-year period:

Table 6: CBNRM spending, 1990–2003 (N$, at constant 2003 prices)

Year	Total spending	Year	Total spending
1990	2,708,018.43	1997	49,779,788.29
1991	3,429,742.20	1998	49,901,143.39
1992	5,076,519.86	1999	51,219,570.80
1993	10,141,817.08	2000	53,154,523.80
1994	31,295,878.62	2001	62,841,529.11
1995	24,107,796.46	2002	79,085,939.41
1996	29,227,361.74	2003	48,769,725.80

Table 7. Analysis of CBNRM funding, 2000–2003

Percentage decrease/increase	–8.25

Source: Basic funding data obtained from the Environmental Economics Unit of the MET.

The analysis in Table 7 reveals a decrease of development-partner funding of 8% in real terms for the 2000–2003 period. These results would be consistent with Hutton et al. (2005), who mention a decline in CBNRM funding in southern Africa due to shifting priorities and thinking among donors. However, for certain agencies such as the USAID, Hutton et al. (ibid.) mention that their funding in Namibia has not decreased. Furthermore, the data does not include significant developments in funding more recently, such as the extension of the Living in a Finite Environment (LIFE) Program funded by the USAID, and the Integrated Community-based Ecosystem Management (ICEMA) Project funded by the GEF and the World Bank, as listed in Tables 4 and 5 above. Thus, the apparent decline in development-partner funding for CBNRM has likely been reversed: it certainly is not declining overall.

Development-partner contributions to CBNRM stimulate associated investments in conservation by communities themselves – who allocate land and resources to conservation – and by the private sector, which invests in tourism enterprises and concession infrastructure in community areas through joint ventures. Boxes 1 and 2 below give examples of investments by development partners and the private sector. Together, development partners and the private sector constitute the most important funders of community-based enterprises.

Box 1. Financing community-based enterprises: The development partner

Grootberg Lodge, Namibia's first lodge owned by a rural community, was inaugurated in July 2005. The luxurious, middle-market accommodation establishment with 12 rooms is situated in the #Khoadi //Hoas Conservancy in the Kunene Region. The cost of constructing the lodge was financed by the European Union through the MET's Namibia Tourism Development Programme. This funding amounted to around N$4.5 million (US$690,000).

Source: Business Namibia (2006)

Box 2. Financing community-based enterprises: The private sector joint venture

In early 2005, the #Khoadi //Hoas Conservancy in the Kunene Region signed a joint venture agreement with EcoLogistix, a private enterprise. Under this agreement, the conservancy partner owns all the assets, while the private-sector partner undertakes staff training, infrastructure maintenance, management, marketing logistics, and bookings. EcoLogistix pays the conservancy a percentage of the income and profit generated – which is expected to amount to around N$300,000 (US$50,000) in the first year of operation.

Source: Business Namibia (2006)

It is important to note that some development-partners contributions to CBNRM are channelled via local NGOs such as Integrated Rural Development and Nature Conservation (IRDNC) and the Rural Institute for Social Empowerment (RISE). Such NGOs contribute funding to the CBNRM process as well, although this is not mentioned in Table 4. The IRDNC, for example, a major local NGO supporting CBNRM, has an annual turnover of around N$12 million (US$1.8 million), of which only about half is sourced from the international donor contributions listed in Table 4. No detailed data was secured on other local NGO investments.

4.4 Environmental funds

An important financing instrument is the establishment of designated funds. Namibia has two statutory environmental funds: the Game Products Trust Fund (GPTF), which has been in operation for some time, and the Environmental Investment Fund, which has yet to become operational. There are also funds established by local government structures and the private sector.

4.4.1 Statutory environmental funds

Box 3 details one of Namibia's statutory funds, the **Game Products Trust Fund**.

Box 3. The Game Products Trust Fund

This Fund was created by the Game Products Trust Fund Act, 1997 (No. 7 of 1997), in support of the conservation and management of wildlife resources and rural development. An independent board, appointed by the Minister of Environment and Tourism, manages the Fund. To save costs, the MET administers the Fund, although the Act makes provision that administration can be outsourced. The Act also provides that the Fund may receive Parliamentary appropriations, donations, interest accrued, and proceeds from the sale of game products or any other source. Government has never capitalised the Fund through an appropriation, but it has granted approval on a case-by-case basis for the proceeds of game product sales, live game auctions, live game export levies, hunting concessions, etc. to be deposited into the Fund. Cabinet has also agreed that Namibia's proposals in respect of the Convention on International Trade in Endangered Species (CITES) and the trade in elephant products and black rhinoceros hunting quotas include a commitment that any related income is deposited into the Fund. Both the MET and rural communities have benefited from the Fund, and it has also supported aspects of Namibia's international campaign to remove barriers to trade in wildlife. In addition, conservancies have been supported with regard to creating waterholes for wildlife and protecting infrastructure against elephants. The MET has benefited by obtaining funding for park fencing, the purchase of land for inclusion into the Waterberg Plateau Park, aerial surveys, communication systems and vehicles, amongst other things. The Fund has played an important part in both the MET's and conservancies' operations, and should be further strengthened. The MET has on various occasions proposed that all or part of the revenue that it earns from the sustainable use of wildlife be allocated to this Fund. Expenditure (disbursements) from 2004 to 2005 onwards remain subject to the approval of the Fund's Board, actual receipts, and various external factors such as CITES approvals for trade quotas.

(Box 3 continued)

		N$'000
2003/4 budget	Balance 1 April	9,357
	Receipts (actual)	3,445
	Expenditure	2,887
	Balance 31 March	9,915
2004/5 budget	Balance 1 April	9,915
	Receipts (actual)	9,620
	Expenditure	1,357
	Balance 31 March	18,178
2005/6 budget	Balance 1 April	18,521
	Receipts (latest estimate)	4,200
	Expenditure (latest estimate)	(9,500)
	Balance 31 March (latest estimate)	(13,221)
2006/7 budget	Balance 1 April	5,000
	Receipts (forecast)	18,000

Source: MET (2005)

The **Environmental Investment Fund** is aimed at enhancing the country's environmental and wildlife protection efforts. When it comes into force, the Fund will grant loans and bursaries to community-based environmental projects, NGOs, and individuals involved in environmental programmes for activities and projects approved by the Fund's Board. The Fund will, among other things, invest in environmental projects and activities that promote economic development and economic empowerment for communities to maintain and protect the environment. The Fund was established through the Environmental Investment Fund Act, 2001 (No. 13 of 2001). The Act mandates the Fund to raise financial resources for direct investment in environmental protection and natural resource management. At the time of writing, efforts were being made within the MET to bring the legislation into effect.

The **Marine Resources Fund** finances the research activities of the Ministry of Fisheries and Marine Resources (MFMR) as well as a number of its training initiatives. A small fee that is charged on all landings goes to this Fund. While the MFMR controls all expenditure from the Fund, the quota and by-catch fees go directly to the public coffers and are not under the MFMR's control. Actual spending and allocations from the Fund could not be obtained.

4.4.2 Other public environmental funds

A few other public funds exist in Namibia, especially among local authority structures, although formal data for most of them is hard to acquire. Most of these funds provide financing for local communities engaged in projects to conserve or manage the environment. The funds also finance other environmental concerns such as environmental health and waste management. These funds, which are relatively small compared with their statutory counterparts, do not only concern themselves with biodiversity per se, but with broader environmental goals.

The Municipality of Walvis Bay Environment Fund, operational since 2003, set aside N$400,000 (US$65,000) in their 2003/4 budget for this Fund. However, only 23% of the amount was actually utilised. In their 2004/5 budget, the Municipality's allocation to the Fund was N$50,000 (US$7,800) for appropriation to environmental projects. Generally speaking, allocations to the Fund compete with other pressing municipal projects, and lesser amounts might at times be allocated to the Fund.

Larger local authorities such as the Henties Bay and Swakopmund Town Councils as well as the Windhoek City Council have small environmental funds, although information on them is hard to come by. What could be established was that the annual allocations to most of these funds are below the N$500,000 mark (US$78,616).

4.4.3 Environmental funds run by the private sector

In respect of the private sector, there is Nedbank Namibia Ltd's 'Go Green' Fund and the Cheetah Conservation Fund. Box 4 below provides some detail on the **'Go Green' Fund**.

Box 4. Nedbank's 'Go Green' Fund

Nedbank Namibia (Pty) Ltd, one of Namibia's commercial banks, operates a dedicated environmental fund known as the 'Go Green' Fund. The Fund was launched in 2001, and is financed by bank contributions for each product sold in the 'Go Green' suite. Currently, these products are innovative home loan options and vehicle finance options. The Fund is geared towards projects that –

- support the conservation, protection and wise management of sensitive habitats and indigenous plant and animal species
- improve our understanding of indigenous species and natural ecosystems, particularly in respect of urgent conservation problems
- promote efficient and appropriate use of natural resources to support their sustainable long-term use, and
- promote and distribute accurate information on environmental issues and parameters to all Namibians.

The Fund has grown from N$50,000 (US$7,800) in 2001 to N$800,000 (US$125,786) in 2004. Some of the projects being funded include funding to support extensive upgrades of vulture conservation, studies to assess the impact of diamond mining on hyenas, and erecting structures to protect the breeding grounds of the Damara Tern and the Carmine Bee Eater.

Source: Nedbank (2004)

The **Cheetah Conservation Fund** is dedicated to conserving, researching and marketing the Namibian cheetah population as a tourist attraction. The Fund's expenditure over the past four years (2002–2005), which includes research, conservation, education and marketing, is approximately N$20 million (US$3.1 million) for the four-year period, representing around N$5 million (US$780,000) per annum.

4.4.4 Environmental funds run by NGOs

The **Rössing Foundation** provides support and training in respect of all tourism undertakings that Arandis residents initiate for the Erongo Region. For example, the Arandis Urban Conservancy Trust was established with the Foundation's assistance, and is currently being formally registered. Other conservancies which the Foundation assisted in the Erongo Region during 2004 were Otjimboyo (north-east of Uis), Ohunju (in the vicinity of Omatjette), #Gaingu (at Spitzkoppe), and the Henties Bay Cultural and Tourism Project, run by that town's community.

The **Desert Research Foundation of Namibia** is involved in research and educational activities associated with desertification. Unfortunately, their annual budget figures could not be obtained.

The **Namibia Nature Foundation** (NNF) manages various funding facilities whose ultimate aim is to contribute to conservation. These facilities include micro-loans (backed by the NNF), the Local Environment Fund (backed by the Swedish International Development Agency, Sida), the Namibia Environment Fund (backed by the Danish International Development Fund, Danida), the Small Grants Fund (backed by the GEF), CBNRM Grants, Environmental Education Tours, and the Succulent Karoo Ecosystem Project (SKEP) Grant. Most of these funds focus on enhancing the capacity of community-based organisations/NGOs in their quest to bring economic development to target rural areas, and funding sustainable natural resource projects that lead to or promote conservation. The SKEP Grant, for example, received US$850,700 (N$5.4 million) from the Critical Ecosystem Partnership Fund to be used by 2007. An amount of US$200,000 (N$1.2 million) is to be allocated to civil society projects including NGOs, private individuals and other interest groups who have innovative ideas to contribute to the conservation and sustainable development of the Succulent Karoo in Namibia. Since 2002, an amount of N$2 million (US$326,200) has been used for MET activities in the Sperrgebiet area. Projects that have received funding from the SKEP Grant include research on the brown hyena, and the provision of baseline biodiversity data for conservation planning of the Sperrgebiet National Park. Since 2003, the GEF Small Grants Fund has disbursed N$5.5 million (US$864,779) for local communities' environmental projects across the country. Between 1999 and 2004, the Sida Local Environment Fund has granted N$5 million (US$786,163) to environment- and development-oriented organisations across the country.

Namdeb is involved in a diverse range of conservation initiatives. This includes projects such as Save the Rhino, Fish River Canyon clean-ups, and being involved in the Orange River Mouth Ramsar site. Since 2002, Namdeb has spent between N$6 million and N$8 million (US$900,000–US$1.2 million) a year on environmental activities. However, these sums include operational expenditure and other incidental expenses related to such conservation initiatives.

4.5 Direct private-sector financing

With increased environmental consciousness and a profit motive, and given the significant prevalence of private land in much of the southern African region, large investments have been made by the private sector in biodiversity conservation – mostly for tourism and recreation. This has occurred in both rural and urban areas. Wealthy citizens are establishing more and more private protected areas for aesthetic and commercial reasons. In addition, commercial enterprises support conservation efforts as part of image-building efforts.

Estimates of the aggregate financial value of private conservation investment in Namibia are not available. However, Barnes & De Jager (1996) found that the number of large game animals on private land between 1972 and 1992 increased from 700,000 to 1.2 million head, as private landholders increasingly invested in wildlife protection and utilisation activities. The total net value added because of this growth in wildlife rose from N$22 million (US$3.4 million) to N$41 million (US$6.4 million).

Private investment in conservation takes place on individual properties and, increasingly, on commercial land conservancies, where groups of neighbouring landowners manage their wildlife resources together to achieve economies of scale. Preliminary wildlife resource accounts at the MET suggest that 80% of the numbers and value of the nation's wildlife stocks occur on private land. The production of commercial land wildlife contributes some 24% of total net value added from all wildlife-based activities (excluding marine resources).

The Conservancy Association of Namibia (CANAM) has 20 commercial land conservancy members, comprising a total of over 400 individuals. Commercial land conservancies cover close to 4 million hectares. At least 75% of CANAM's members are also members of Namibia's Professional Hunters Association and many have small bed-and-breakfast operations that would be registered with the Bed and Breakfast Association as well. This initiative also presents a very important component of financing biodiversity and the environment in Namibia.

A good example of private-sector investment in conservation on private land is that of the Gondwana Cañon Park in the Karas Region (Barnes & Humavindu 2003). Here, a private group of landowners has invested N$24 million (US$3.7 million) in wildlife and tourism infrastructure on 80,000 hectares. The very high return from tourism on this land has allowed for reinvestment in the conservation of the resource base.

4.6 Development loans with biodiversity components

ComMark Trust has collaborated with the Development Bank of Namibia to design a loan product to create an incentive for lending to and investment in joint ventures between private lodge and tour operators on the one hand, and neighbouring communities and worker households that have been historically excluded from such opportunities on the other. This process is still only in the starting blocks, however. If successful, this approach holds enormous potential for ensuring that the significant private investments into conservation in the past are maintained and expanded within the context of land reform.

5. ANALYSIS

Existing and potential IFMs in Namibia are summarised in Table 8 below. Both types of IFM will be discussed in this section, along with some new mechanisms.

Table 8. Summary assessment of existing Namibian IFMs

Instrument	Form of IFM	Status/needs/potential
Taxation	Government's yearly allocations to the MET	• Already exists • Analysis, expansion and reallocation needed • Significant expansion potential
• Grants • Environmental funds	Various public/private grants to help support local community environmental projects	• SKEP Grants • GEF Small Grants Fund • Walvis Bay Municipality • Expansion needed • Significant expansion potential
Loans or grants from official development aid	The routing of foreign tax money to a multilateral institution that can channel funds to projects or agencies that help protect environmental resources	• GEF, Sida, Danida, USAID, etc. • Expansion needed • Significant expansion potential
Loans or grants from NGOs	Various international and local NGO investments to support local communities, and environmental projects	• IRDNC, NNF, WWF, etc. • Expansion needed • Significant expansion potential
Tax incentives	Tax incentives for 'green' businesses or to promote private land conservation	• Analysis and introduction needed • Significant potential
• Tradable permits • Development rights • Extraction quotas	• Setting an upper limit on an environmentally destructive activity • Allocating tradable rights to such activities using a predetermined system • Letting the actors trade, buy, or sell such rights via a market system	• Partially transferable quotas in fishing • Analysis and further expansion/introduction needed • Moderate to high potential
• Deposit–refund schemes • Performance bonds	Imposing a small 'deposit' or surcharge on the cost of drinks sold in glass or aluminium containers, and then returning the surcharge to consumers that recycle those containers	• Deposit systems in place for few beverage containers • Analysis and possible further expansion needed • Moderate potential
• Venture capital or loans for 'green' tourism businesses	Use of venture capital tools to support environmental businesses	• Mooted by ComMark and the Development Bank of Namibia developing a loan for black economic empowerment in tourism • Analysis and trial implementation needed • Significant potential
• Resource extraction rents • Severance fees	Charging the developer of resource extraction projects (mining, fishing, etc.) a fee or royalty for the privilege of using a country's non-renewable resources	• Resource rents in fisheries sector, royalties on diamonds, etc. • Analysis and judicious expansion needed • Significant potential
Private conservation investments	Investments in conservation-related activities such as wildlife production on commercial land	• Significant investments on private and communal land – CANAM activities • Removal of barriers needed, especially in parks and communal areas • Very significant potential
• Entry fees • Concessions	Charging for the use of environmental sites, usually in the form of park entry fees, concession fees, or excursion fees	• Concession fees, park use fees, licence fees for wildlife and forest use, etc. • Analysis and ongoing judicious implementation needed • Moderate and variable potential

Two issues present themselves when analysing current IFMs: efficiency, and whether the current funding level is adequate for biodiversity finance in Namibia.

The efficiency of current mechanisms focuses on whether they could be improved based on existing operational modes. Mechanisms need to be developed for better allocation of Government and donor expenditure to meet long-term planning needs. At the current rate of financing from the latter two sources, there is a disparity between what is available and what is needed for, say, investments in the protected area system. Turpie et al. (2004) estimate the total capital cost requirement for the protected area system to be N$225 million. However, total Government allocations for this system are around N$37 million per annum. Thus, there is a need for both the prime source of biodiversity finance (Government and donors) to improve their allocation mechanisms, and for levels to be congruent with the total need for biodiversity financing.

To simplify fund management and improve economies of scale, the Government might also consider merging the Game Products Trust Fund with the Environmental Investment Fund.

To improve the efficiency and level of private-sector investments in conservation, Government could help by ameliorating constraints to investment by the private sector into wildlife production. This includes opening up protected areas to more private tourism developments (with concurrent private investment in conservation), guided by rigorous park planning. Government intervention also entails enabling and facilitating joint venture developments in communal and private lands. Some other challenges that need Government intervention are mentioned by Bond et al. (2004), namely land reform issues currently affecting southern Africa, the establishment of stable markets for wildlife goods, and improvement of skills levels. In addition, the MET could initiate research on the benefits of amending existing tax arrangements in order to influence landowners to undertake more private conservation activities.

To improve the efficiency of the CBNRM programme, Government – along with its development partners – should ensure that tourism development within conservancies is sustainable. Recent work by ComMark Trust (2005) asserts that, since its inception, the CBNRM programme focused heavily on environmental issues and resource management rather than on tourism development. This has undermined creating sustainable community-based tourism enterprises and the imbalance should be addressed. In this regard as well, Massyn et al. (2004) identify several barriers to tourism in communal areas and make several recommendations to rectify the situation. A central realisation emanating from the above-mentioned studies is that, if community-based enterprises should move away from development-partner funding to raising funds from the capital market – say, from the mooted ComMark and Development Bank of Namibia tourism loan product, they need to be financially viable and sustainable. This need for a greater emphasis on tourism development does not, of course, discount the important issues of improving conservancy governance and participation, which are a major focus in the CBNRM programme for the next five years.

6. GENERATING NEW RESOURCES

Although the use of existing resources is important, these alone are not likely to be sufficient, given the capital costs required for the protected area system (as a proxy for biodiversity financing needs). Thus, there is a need for a detailed examination and analysis of both the cost and funding levels of biodiversity conservation in the process of developing a national

financing strategy. In this section, therefore, the following approaches will be examined: charging for services that are currently or practically free, especially in protected areas, and the potential for a range of taxes and other charges.

6.1 Income from charging for services and concessions

The MET has used various surveys to structure park use fees more effectively. The latest fee structures reflect this. Research by Krug (2003) and Humavindu (2002) has shown considerable potential exists in respect of capturing higher park entry fees. Tourists are willing to pay considerably higher fees than those currently charged. Turpie et al. (2004) estimate that current park fees amount to N$16 million (US$2.5 million) per annum, but could be raised to N$25 million (US$3.9 million) per annum. The fact that the MET may now retain 25% of park fees (with a possibility to increase this further) should serve as an incentive to investigate the feasibility of raising park fees to an optimal level.

Turpie et al. (2004) suggest the trial introduction of a loyalty-based Wild Card system such as that practised by national parks in South Africa as a possible way of increasing park patronage and park-use revenues. Essentially, purchasing the card entitles a user to unlimited free access to specified parks for the specified period – say, a year. The price depends on the group of parks that the purchaser chooses to include. Turpie et al. (ibid.) conducted a detailed analysis of potential benefits of such a system for Namibia. However, without data on likely uptake rates, for example, it was impossible to determine if benefits would exceed costs. Further analysis, and possibly trial implementation, would be needed, taking into account the capacity needs and transaction costs for implementation.

Bayon (2001) describes an evolving idea concerning park fees, namely securitisation. Securitisation is one of the newest, and perhaps most interesting, developments in the global finance arena. *Securitisation* is the process of turning an asset, debt, obligation or aggregation of these into a marketable security (a stock or a bond). In other words, the securitisation of loans happens when creditors pool a series of loans and use the steady stream of interest payments on these loans to back the issue of a bond that can be traded in the capital markets. Nevertheless, in theory, it is possible to 'securitise' the revenues of a national park (entry fees together with whatever income the park is able to obtain from ecosystem services) and turn these into a bond sold on global capital markets. This could have potentially important benefits:

- It could permit a national park to borrow money to strengthen its income-generating potential, and
- It would create a new group of 'stakeholders' (the bondholders) interested in ensuring the success of the national park.

Although the securitisation market is only emerging now in South Africa, and Namibia might not be amenable to such an idea quite yet, the recent award of a Fitch Credit Rating for Namibia is opening doors to global capital markets for these types of deals.[11]

Turpie et al. (2004) assert that tourism concessions potentially provide the greatest source of new finance for the protected area system. Based on their estimates, this income could increase from its current annual levels of N$3.9 million (US$613,207) to N$6.5 million

[11] Indeed, securitisation marked its presence in Namibia in 2001 when Mettle (Pty) Ltd, a South African specialist finance firm, arranged a privately placed N$100 million three-year issue backed by hire purchase loans for a Namibian furniture retail group.

(US$1 million). Considerable amounts could be generated by extracting rents from privately funded joint ventures and concessions. However, to realise this, Government will need to incur some costs in terms of planning; management and administration to ensure maximal conservation and economic benefits ensue.

6.2 Imposing 'green' taxes/charges

Taxes and charges are key to decreasing pollution and increasing revenue for conservation measures. Except for a tourism levy charge to tourists to cover the operations of the Namibia Tourism Board as well as park entry fees, not much development has occurred on this front. The Environmental Investment Fund needs a capital base, but it also needs an ongoing funding source from levies. As per the Fund's legislation, this was supposed to take the shape of a tourism levy. However, the levy already established by the Namibia Tourism Board has made it difficult to impose another. An optional mechanism like an airport tax could be considered instead, but the feasibility of this needs to be investigated.

Environmental taxes are driven by the principle of 'The polluter pays', which requires individuals causing environmental damage to meet the full costs of their actions – contributing to paying for activities that ameliorate or prevent biodiversity damage in proportion to their impacts on biodiversity. As polluters may pass on some of these costs as higher prices, consumers who benefit from activities that adversely impact biodiversity may also be meeting a portion of the higher costs.

There are three types of environment-related taxes and charges. The first of these are emissions charges – payments directly related to measures of pollution, whether emitted into air, water onto soil. Such charges normally deal with one type of emission at a time, e.g. a tax per ton of sulphur dioxide (SO_2). The second type of environment-related taxes and charges are payments related to the delivery of a public service such as collecting public treatment of effluents or sewage. The households, industries or individuals concerned are charged for using these services. The revenues generated from such service charges are generally used to provide the service. The third type of environment-related taxes and charges are product taxes. These may be levied to price environmental effects correctly, and could be used to correct externalities other than pollution. Thus, a product tax may be levied on units of harmful substance contained in a product. A carbon tax, for example, would be based on the carbon content of each particular fossil fuel.

Although the Ministry of Finance has expressed the need to introduce environmental taxes, nothing has yet developed. Significant groundwork needs to be done in terms of viability, design and institutional capacity to implement pollution/environmental taxes. Currently, it appears as if these critical parameters have not yet been met; so, in the short term, Namibia cannot implement them. This status quo is in line with that regarding environmental taxes in Africa in general (Pagiola et al. 2002). Africa is constrained by the limited scope of existing tax systems and inadequate collection mechanisms to implement environmental taxes; and where user charges have been implemented, they are haphazard and not transparent. In addition, the charges are often kept low and are hardly ever adjusted – leading to an erosion of their real values.

Environmental taxes have usually been charged on the use of pollutants such as fertilisers, pesticides, effluents, and refuse, or to internalised costs of use of public goods such as grazing, water, and woodlands, where such use is characterised by open access.

In Namibia, at first glance there might be a case for taxes on pesticides, effluents, and refuse, as well as grazing, but care needs to be applied so as not to create perverse distortions.

In Europe, agriculture generates a number of different pollutants through the use of fertilisers, for example. This could be investigated in Namibia as well, and if these pollutants are a problem here too, e.g. through leakage into groundwater, then taxing them would be a reasonable idea. However, fertiliser pollution is probably not a major problem in Namibia since so little is applied overall, and its effects are probably more positive than negative.

Pesticide taxes could be restricted to those that accumulate in food chains, such as dieldrin, and would exclude the non-residual ones like pyrethroids and carbamates. Here, a levy can simply be applied to their purchase or import.

It could be argued that effluent and other emissions pollution in Namibia is highly localised. Thus effluent/emissions pollution charges could be targeted at specific cases where serious pollution may occur. A possible example might be the clothing manufacturers, Ramatex, with levies applied to curb the groundwater problem while strong incentives are provided to other, non-damaging aspects of the venture. This may be politically difficult to implement, however. In addition, there are sulphur dioxide emissions around Tsumeb from mining activities at Ongopolo, whilst around Arandis there are carbon dioxide emissions emanating from Rössing Mine's operations – although these have decreased dramatically through more efficient operations.

For solid waste, levies charged at waste-deposit sites only encourage dumping, which is already a problem, so these would not be recommended. On the other hand, deposit-refund schemes for cans and returnable bottles, for example, where retailers claim and refund large deposits on packaging, might be useful to curb littering.

Use of public resources such as grazing or fuel wood on communal land can be taxed, but this is politically sensitive and difficult to enforce. Indeed, given that the people who use these resources should be the target of redistribution aid, it might be better to emphasise incentives and subsidies such as the money that donors and Government put into CBNRM to deter environmentally damaging activities.

Another interesting aspect that could be pursued involves the fuel levy system. The levy is currently only placed on petrol, diesel and paraffin, and it is set fairly arbitrarily with regard to these fuels. If the Ministry of Finance and the MET were to set up an emissions tax system, a reasonable place to start would be to replace these three levies with a general tax on CO_2 emissions placed on all energy use, i.e. not only on these three fuels, but also on other oil-based fuels, coal, and electricity produced using fossil fuels. There would be a need to ensure that the proposal does not violate Southern African Customs Union agreements, e.g. whether such agreements permit a direct tax on coal-based electricity imported from South Africa. Otherwise, there may be a need for a more creative legislative arrangement. The potential for a general tax on to generate more revenue than today's fuel levies will depend on the chosen tax rate. However, given international interest in greenhouse gas emissions, the MET would not experience great difficulty in getting assistance to assess the feasibility of such a CO_2 tax.

7. CONCLUSION AND RECOMMENDATIONS

Several conservation IFMs are in place in Namibia. Some function well, but in most cases there is potential for improvement in terms of the volume as well as the quality of finance, e.g. more instruments, or deepening of biodiversity financial markets. Given the highly inadequate levels of capital investment in the protected area system, it appears as if the issue of volume should take precedence. Thus, there is a need to increase the volumes of funding coming from Government, NGOs, the private sector, and development partners.

A major finding is that, in order to increase the efficiency and volume of financing needed, there is a need to realign Government and donor allocations with the long-term financing needs estimates of the biodiversity asset base of the country.

Another finding is that there is significant scope for increasing investment in conservation as well as revenue though opening up opportunities for more concessions and joint ventures, both within and outside the protected area systems. There is also scope for increasing the investments that communities have made in conservation within the CBNRM programme.

Previous economic research forms the factual foundation for a proposal to increase park fees. Park fee differentiation already reflects these findings. Secondary sources of revenue might be realised from creating a system of 'green' levies, but only after a comprehensive feasibility study is done for each such levy. There is some scope for introducing fiscal incentives or disincentives with regard to pollution and natural resource use, but again, this should first be informed by a comprehensive feasibility analysis.

The need for comprehensive analyses is critical to the reality of advocating IFMs, an issue which is also captured by Emerton (2002). In advocating IFMs for a country, there is a need to ensure that they are appropriate. The choice of IFMs should be cross-checked to make certain they are consistent with – and support – a specific country's broader economic and development goals, whether they involve significant costs to implement, whether they are politically acceptable, and that they support social and equity considerations.

An essential part of the verification process described above relates to stronger integration of economics into the biodiversity planning processes as a medium- to long-term measure. For the MET specifically, a major focus should be to direct, strengthen and support its Economics Unit towards research involving the use of economic measures to strengthen the National Biodiversity Strategy Action Plan. This would involve identifying and putting in place more economic valuation exercises, and investigating and researching incentive measures and IFMs to aid biodiversity conservation. This would build a critical level of experience, generate lessons, and develop practical processes for the use of economics for biodiversity in Namibia.

The following is a list of specific recommendations:

A. Improvements to existing IFMs

1. There is a need for both an increase in and a planned reallocation of Government expenditure on conservation. Notably, an increase in capital investments and in planning capacity is required.

2. There is a need to remove barriers to, and create an enabling environment for, private community and NGO investment into conservation, both inside and outside protected areas.

3. Investments by international donors and environmental NGOs as well as local NGOs need to be enhanced in order to complement the direct inputs from Government. These may take the form of projects, programmes, or direct payments – possibly to environmental funds.

4. The use of statutory funds is entirely appropriate. The Environmental Investment Fund needs to be developed fully and made functional. The feasibility of amending legislation in order to merge the two funds should be considered.

5. The current and ongoing review and setting of park and licence fee structures based on research results needs to be continued. Further research and, possibly, trial implementation of additional mechanisms such as the Wild Card park entry system should be considered.

B. Recommendations for new IFMs

6. Empowerment investment loan schemes such as the one being mooted by the Development Bank of Namibia and ComMark Trust need to be further developed and tested.

7. The possibility of introducing securitisation needs to be investigated, particularly with regard to applications with biodiversity-derived revenues.

C. Recommendations on the specific needs for implementing A and B above

8. The research, planning and analytical capacity in the MET needs to be strengthened to ensure that the above interventions are effective and appropriate in terms of conservation and development needs.

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APPENDIX A: DEFINING INNOVATIVE FINANCING MECHANISMS

Type	Definition
Taxation	Funding environmental activities directly by means of public funds raised through taxes
Multilateral aid	Channelling funds through multilateral organisations, e.g. when the world's governments put money into the GEF
Debt-related mechanisms	Using creative mechanisms for channelling tax money to protected areas; a prime example is the conversion of a country's national debt into money for conservation
Loans from capital markets	Various, e.g. issuing State or municipal bonds at low rates of interest to pay for conservation activities; ultimately, these loans are paid back using tax revenues that are collected at some future date
Private philanthropy	Receiving funds from individuals, organisations, or families who feel strongly about conservation and who are willing to donate money to ensure certain areas are protected
Environmental venture capital/equity funds	Raising funds from a variety of sources – private and multilateral – in order to invest in small private businesses that meet a set of environmental and economic criteria
Loans to 'green' businesses	Stimulating the creation of 'green' businesses by providing them with concessionary or low-interest loans
Export credit and investment guarantees	Setting up mechanisms that help diminish perceived risks in environmental projects/businesses, thereby possibly encouraging more 'environmental' investment
Resource extraction levies/rents/fees	Charging the developer of resource extraction projects, e.g. mining companies or companies involved in oil exploration and development, a fee or royalty for the privilege of using a country's non-renewable resources
Entry fees/user fees/concessions	Charging for the use of environmental goods and services.
Securitisation	Turning an asset, debt, obligation, or an aggregation of these into a marketable security (stock or bond)
Tradable permits/development rights/extraction quotas	Setting an upper limit on an environmentally destructive activity; allocating tradable rights to such activities using a predetermined system; and letting the agents trade, buy, or sell these rights via a market system

Source: Adapted from Bayon (2001)

APPENDIX B: GEOGRAPHICAL CLASSIFICATION OF DEVELOPMENT-PARTNER PROJECTS

Development partner	Title of programme	Classification
Finland	Finland Forestry Programme	National
European Union	European Tourism Development Programme	National
Germany (KfW, GTZ)	Biodiversity Programme	National
Germany (KfW, GTZ)	National Programme to Combat Desertification	National
United States (USAID)	LIFE Program on CBNRM	National
Germany (Deutscher Entwicklungsdienst, DED/German Development Service)	Community forestry	National
WWF	Rhino conservation, Etosha National Park	National
Save the Rhino International	Save the Rhino International	National
SADC Rhino Programme	SADC Rhino Programme	Regional
FAO	Domestication of indigenous fruit trees	National
FAO	Support to the National Forest Programme	National
Germany (GTZ via SADC)	Community forestry	National/Regional
UNDP	Enhancing strategies and capacity of communities affected by desertification	National
Finland	Infocom Project	National
Finland	Bush encroachment study	National
Sweden (Sida)	Environmental economics	National
United Kingdom (DFID)	WILD Project	National
UNDP	Enabling activity for climate change programme	National/Regional
Germany (KfW, GTZ)	Strengthening the capacity of the MET in the field of sustainable natural resource management	National
Germany (KfW)	North-eastern parks (Babwata, Mudumu, and Mamili National Parks)	National
Denmark (Danida)	Clean Production Technology	National
GEF (via the UNDP)	National Capacity Needs Self-assessments	National

Development partner	Title of programme	Classification
GEF via the World Bank with co-financing from the Fonds Français pour l'Environnement Mondial (FFEM), France	ICEMA Project on CBNRM	National
GEF (via the World Bank)	NACOMA Project (PDF-B and full phase)	National
GEF (via the UNDP), with co-financing from the UNDP	Strengthening the Protected Area Network (SPAN) Project	National
GEF (via the UNDP)	Country Partnership Programme for sustainable land management	Regional
GEF (via the UNEP)	Desert Margins Project on sustainable land and natural resource management in the Kalahari Desert	National/Regional
GEF (via the World Bank)	The Country Pilot Partnership/Promoting Environmental Sustainability through Improved Land Use Planning (CPP/PESILUP) project on sustainable land use planning	National
Conservation International (under negotiation)	Proclamation of the Sperrgebiet National Park	National
Norway	Environmental Legislation Project	National
Peace Parks Foundation (under negotiation)	Transfrontier Park development	Regional

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