THE CONTRIBUTION OF TOURISM REVENUE TO FINANCING PROTECTED AREA MANAGEMENT INSOUTHERN AFRICA

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Abstract - Protected areas are one way of conserving biodiversity, ecosystem services and human well-being and are now recognised as an integral part of sustainable development strategies. Over the past four decades there has been a ten-fold increase in the number of protected areas globally. Increasingly however, park management agencies do not have sufficient funds to finance their conservation management activities, and most governments do not fund PA budgets fully. Furthermore, efforts to determine how much money is spent or required for PA financing has been hampered by significant data shortages, especially in the most underfunded countries as many are still unable to quantify the relative adequacy of their levels of conservation finance. This research assesses the extent to which tourism contributes towards biodiversity financing for PA management in southern African countries. It analyses submitted Fifth National Country Reports (produced in 2014/2015) to the Convention for Biological Diversityproduced for all southern African countries to determine the actual contribution of tourism to overall PA financing. It highlights that whilst tourism is a significant revenue source for PA authorities in southern Africa, how it is retained and reinvested back into conservation management remains ambiguous. The incompleteness and inconsistency of national level reporting presents a missed opportunity for justifying greater financing support.

Keywords - Protected Areas, Conservation Finance, Tourism, Revenue, Southern Africa.

I. INTRODUCTION

The establishment of Protected Areas (PA) is a widely accepted tool for biological conservation (Adams, Aveling, Brockington, Dickson, Elliott, Hutton, Roe, Vira & Wolmer, 2004; Dudley, 2008; Emerton, Bishop & Thomas, 2006; Juffe-Bignoli, Burgess, Bingham, Belle, de Lima, Deguignet, Bertzky, Milam, Martinez-Lopez, Lewis, Eassom, Wicander, Geldmann, van Soesbergen, Arnell, O'Connor, Park, Shi, Danks, MacSharry& Kingston, 2014; Roe & Hollands, 2004; Worboys, 2015). Such areas are primarily dedicated to the protection and enjoyment of natural or cultural heritage, the maintenance of biodiversity, and the maintenance of ecological life-support services (Dudley, 2008). There are numerous definitions of PAs and various different types of PAs, based on their primary management objectives (see Dudley, 2008 for more on the different categories of PAs). The International Union for the Conservation of Nature (IUCN) defines a PA as, "A clearly defined geographical space, recognised, dedicated and managed, through legal or other effective means, to achieve the long-term conservation of nature with associated ecosystem services and cultural values" (Dudley, 2008, p. 8). PAs are recognised as integral toachieving an increasinglydiverse set of conservation, social and economic objectives (Watson, Dudley, Segan& Hockings,2014).

The Convention for Biological Diversity (CBD)'s Aichi Targets have received commitment from 192 countries.The Aichi Targets are a series of 20 international commitments agreed at the tenth meeting of the Conference of the Parties, held in October 2010, in Nagoya, Japan. The meeting resulted in the adoption of a revised and updated Strategic Plan for Biodiversity, including the Aichi Biodiversity Targets, for the 2011-2020 period (CBD, 2010).

Target 11 specifically relates to the growth of PAs to support biodiversity conservation and states: "By 2020, at least 17 per cent of terrestrial and inland water, and 10 per cent of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, are conserved through effectively and equitably managed, ecologically representative and well-connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider landscapes and seascapes" (CBD, 2010, p.2).In 2016, there were 202,467 terrestrial and inland water PAs recorded in the World Database on Protected Areas (WDPA), covering 14.7% (19.8 million km^2) of the world's extent of these ecosystems (excluding Antarctica). Consequently, to attain 17% of terrestrial coverage outlined in Aichi Target 11, an additional 3.1 million km^2 would need to be protected. There are 14,688 Marine Protected Areas (MPA) recorded in the WDPA, covering 4.12% (14.9 million km^2) of the global ocean and 10.2% of coastal and marine areas under national jurisdiction (UNEP-WCMC & IUCN, 2016). However, as the number and volume of PAs increase in order to meet their international commitments under the Aichi Targets, the amount of funding available to manage them has remained generally stagnant (Emerton et al., 2006), and insufficient to ensure the effective achievement of

conservation and livelihood goals (Bovarnick, Fernandez, Galindo &Negret, 2010). Furthermore, the amount of financing required to achieve the financial sustainability of a global PA system varies considerably.The CBD estimated that in order to achieve AichiTarget 11 the overall resource needs between 2013 and 2020 are between USD 74 billion and USD 680 billion (CBD, 2012). The CBD does, however, caution its estimates due to limited available data (CBD, 2012). Waldron, Mooers, Miller, Nibbelink, Redding, Kuhn, Roberts &Gittleman, (2013)estimated that total annual expenditure on global biodiversity was approximately USD 21.5 billion for 2001–2008 but a USD 16 billion financing gap remained (). Finally, PA financing shortfalls are most intense in developing countries and current financial needs for PAs in developing countries are thought to range between US$1.1 billion to cover core operations and US$2.5 billion annually to cover the very basic range of actions necessary to ensure that management is effective (Eagles & Hillel, 2008), which represents a significantly lower estimate.

The financial sustainability of PAs is defined by as "the ability to secure, sufficient, stable and long-term financial resources, and to allocate them in a timely manner and in an appropriate form, to cover the full costs of protected areas and to ensure that they are managed effectively and efficiently with respect to conservation and other objectives" (Lockwood &Quintela, 2006, p. 28). Therefore financial sustainability requires that there are institutions that are capable of managing financial resources efficiently and effectively, as well as conservation targets being clearly defined. Financial sustainability is achieved when a PA is able to secure sufficient funds on a consistent basis to satisfy its overall management costs (Bovarnick et al., 2010). However, this in itself does not guarantee sustainability, but also requires effective allocation and efficient use of financial resources whilst identifying opportunities for cost-savings, enabling a greater return on investment without negatively impacting on conservation incomes (Bruner, Gullison, &Balmford,2004).

Tourism is recognised as an opportunity to both finance conservation activities within PAs as well as provide wider economic benefits to communities bordering these areas. Estimates suggest that tourism can contribute up to 40% of gross domestic product (GDP) in less developed countries compared to 10% of GDP in Western countries (Sofield et al 2004:2 cited in Scheyvens 2009). Notably, tourism supported 277 million jobs in 2014, which is 1 in 11 of the world's total jobs (WTTC 2015). However, there is concern of the effectiveness of using tourism to deliver economic development and conservation objectives (Goodwin&Santilli, 2009; Walpole, Goodwin & Ward, 2001; Shibia, 2010). Efforts to determine how much money is spent or required for PA financing have been hampered by significant data shortages, especially in the most underfunded countries (Waldron et al., 2013) as many are still unable to quantify the relative adequacy of their levels of conservation finance (James, Gaston &Balmford, 2001; Lapham & Livermore, 2003). Therefore, this research assesses the extent to which tourismcontributes towards biodiversity financing for PA management in southern African countries. It analysessubmitted Fifth National Country Reports (produced in 2014/2015) to the CBD produced for all southern Africancountries to determine the actual contribution of tourism to overall PA financing. The analysis highlights the incompleteness and inconsistency of national level reporting, demonstrating the missed opportunity of justifying greater financing support.

II. FINANCING PROTECTED AREAS

The low levels of funding allocated for biodiversity conservation remains a universal concern (UNEP-WCMC &IUCN, 2016). Increasingly, park management agencies do not have sufficient funds and most governments do not fund PAs fully (Buckley, 2003; Eagles, Romagosa, Buteau-Duitschaever, Havitz, Glover & McCutcheon, 2012; Mitchell, Wooliscroft& Higham, 2013).Indeed, PAs are still heavily dependent upon government budget allocations to provide funding support (Bovarnick et al., 2010), and even in developed countries, protected area budgets are under pressure as governments reduce their contributions to balance national accounts (Parks Forum, 2012). Protected area authorities become forced to provide innovative options to optimise revenues from the assets that they control (Parks Forum, 2012).

Least developed countries often have a higher benefit-to-cost ratio, as a result of lower management costs, where benefits are considered as total area that could be properly conserved for a given annual investment. However, these countries continue to be the most underfunded (Balmford, Gaston & Blyth, 2003). Insufficient investment in PA management is one of the predominant factors that lead to the existence of 'paper parks,' (i.e. that only exist on paper) which have ineffective and insufficient management (Wilkie, Carpenter, &Zhang, 2001). For example, a survey identified 57 countries have initiated legal processes that make downgrades, downsizes and de-gazette PAs for a number of reasons including land use pressures (Mascia, Pailler, Krithivasana, Roshchankaa, Burns, Mlothaa, Murray &Penga, 2016).

The majority of PA systems are highly dependent on direct government budget support and/or donor

organisation funding. Bovarnick et al. (2010) carried out the most thorough survey of PA financing to date (Cranford, Oakes, Leggett & Parker, 2012). Their research compared 20 countries in Latin America and the Caribbean and indicated that nearly USD 44 million of site-based revenues were generated and captured by these Pas (Fig.1), yet are only a small proportion of total income requirements (Bovarnick et al., 2010).Furthermore, public expenditure on PAs averages only 0.008% of GDP in the Latin America region (Flores &Bovarnick, 2016)[1].

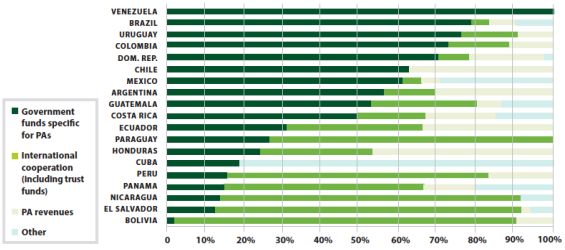


Figure 1: Comparison of PA system financing in Latin American and Caribbean countries (Source: Bovarnick et al., 2010)

As a result of this need to determine financing needs for PA management, a number of initiatives have been developed to support conservation finance with a specific focus on PA systems. The Global Environment Facility (GEF) has continued to fund projects which aim to improve the effective management of PA systems by increasing and diversifying income streams, as well as strengthening cost-effectiveness of management practices. Secondly, the United Nations Development Programme (UNDP) has initiated a project on biodiversity finance, BIOFIN, which aims to support participant countries to measure their current biodiversity expenditures, assess their financial needs in the medium term and identify the most suitable finance solutions to bridge their national biodiversity finance gaps.A number of national-level financing PA projects in Africa have aimed to determine the financial gap between all sources of income and management needs. For example, in Mozambique, in order to achieve a basic level of conservation management across the PA system, the financing gap was calculated at USD 9.3 million annually for financing needs (Nazerali, 2015). Similarly, in Seychelles, an estimated USD 8.7 million is required annually to cover basic management activities with an additional USD 3.1 million for more active conservation management, monitoring and research (Rylance &Barois, 2016). Finally, in Namibia the sustainable financing plan estimated that the financing gap, the value between the budget allocation and actual financing needs, for basic management functions was USD 1.1 million annually and USD 14.6 million annually to achieve optimal management functions (Turpie, Barnes, Longcamp& Paxton, 2010).

Accurately determining the management costs of a PA is an important step to justify adequate funding to support conservation efforts (Bruner et al., 2004), as often current PA expenditures are significantly lower than the actual financial needs to maintain or improve levels of biodiversity. For example,a financing plan for the new Tanzania Wildlife Management Authority (TAWA) estimated that it would require recurrent and capital budgets between 2015 and 2020 of USD221 million.This would reduce the financing gap facing TAWA from USD16.84 million to USD 5.61 million within three years of operation, if it relied only on its traditional income sources. Therefore it would still need to draw in additional funding from internal and external sources to meet its requirements (United Republic of Tanzania Ministry of Natural Resources and Tourism, 2015). Also in Tanzania, a review of the finances of three community-managed Wildlife Management Areas demonstrated substantial losses of between USD68 – 129,000 in 2015 (personal communication. Damian Bell, 10 May 2015, cited in Spenceley, 2016b). These are examples of a global trend (Watson et al., 2014) where PAs are consistently underfunded despite PAs being significant foreign exchange earners for governments.

In summary, there are a number of restrictions to the flow of funding to PAs, which include(Lockwood &Quintela, 2006; Rylance, 2017; Spenceley, 2016a, 2016b):

1. Insufficient priority given by government to the conservation of natural resources;
2. Revenues from services provided by PAs not being earmarked for PA management;
3. Inappropriate management structures which fail to channel funding to PA management;
4. Lack of mechanisms to encourage donor organisations to support PAs;
5. Limited use of business planning at the PA systems level, as well as for specific PAs; and,
6. Lack of a legal basis for PAs to retain and re-invest their revenue.

Tourism offers a tool to utilise a number financing mechanisms which could support the funding of biodiversity conservation in PAs. National governments are increasingly encouraging PAauthorities to become more entrepreneurial in their attempts to expand and diversify site-based revenue generation (Varghese, 2008).Globally, tourism generated an estimated USD 1,245 billion in international tourism receipts in 2014, amounting to 9% of global Gross Domestic Product (UNWTO, 2015).As an illustration, in Rwanda tourism revenue from visits to see mountain gorillas inside the Volcanoes National Park is the country's largest

[1]The authors are not aware of a comparable comparison for southern Africa.

source of foreign exchange, raising US$ 200 million annually (Maekawa, Lanjouw, Rutagarama& Sharp, 2013). According to Eagles and Hillel (2008) tourism financial flows have the potential to make much larger contributions to the management of the world's conservation estate than they currently do. One way of doing this can be through initiating or increasing entrance or user fees, increasing diversity of pricing and broadening the income to include new features (Eagles, 2013). PA authorities often underestimate the economic significance of the tourism assets within their parks and this can lead to low levels of investment in visitor infrastructure and park maintenance which could jeopardise tourism to the park and, therefore, the income earned from tourism (Eagles & Hillel, 2008). Buckley (2010) describes a number of case studies of private sector tourism operators who are providing economic benefits, through tourism as well as support of non-governmental organisations, which are contributing extensively to conservation financing in PAs. Tourism can also provide political support to conservation and serve to increase understanding of the value of parks to governments, and from there potential economic benefits. Tourism revenues should, however, not be the only source of funds as revenue tends to fluctuate with market trends (e.g. see UNWTO, 2016).

III. RESEARCH APPROACH

Theresearch process involved comparing country reports to the CBD on progress towards achieving their Aichi Targets. The Aichi Targets provided two main benefits for the research process: (i) national level data was aggregated using a consistent reporting format for all member countries, and (ii) Target 20 specifically focuses on financing mobilisation for the National Biodiversity Strategic and Action Plan: "at least the mobilization of financial resources for the implementation of the Strategic Plan 2011-2020 from all sources must be increased sustainably from the current levels" (CBD, 2010). Although biodiversity conservation in countries takes place across a broader scale than within PAs, the research assumed that Country Reports may either disaggregate data for PAs or the overall figures would act as proxies for biodiversity in PAs.This assumption was justified on review of the reports, which indeed specified budgets for PAs.This primary stage of research identified the Fifth National Country Reports (produced in 2014/2015) to the CBD produced for all southern African countries except for Lesotho and the Democratic Republic of Congo[2].

A second stage of the research involved searching national parks authority websites of each southern African country for their annual reports. These were usedto find information on their revenue generation from tourism as well as broader budgetary information. However, only one report was identified from South African National Parks (SANParks) (financial year 2014/2015). SANParks is one of the few autonomous PA agencies in southern Africa that is required to produce a public financial report.Finally, national-level PA financial plans in southern African countries were sought and reviewed. Plans were identified for Namibia, Mozambique and Seychelles.

The authors acknowledge two limitations to the research: Firstly, only one annual report and not allCBD reportswere available online, and contacting the PA authorities of each country directly may have improved the availability of data. Secondly, it is acknowledged that not all PAs are managed by national PA authorities but that some are managed directly by non-governmental organisations (NGOs), local communities or the private sector. Financial contributions by those agencies to PA management may not be captured in the CBD reports, and therefore there will inevitably be gaps in the data.

IV. FINDINGS AND DISCUSSION

This section aims to review the results presented by the Fifth National Country Reports to the CBD completed in the year 2014/2015. It focuses on information within these reports on revenue generated by tourism in national government managed PAs in southern African countries.

Table 1presents the summary of the findings from the National Country Reports to the CBD, of which data was available from seven countries (i.e. Botswana, Madagascar, Mozambique, Namibia, Tanzania, Zambia, and Zimbabwe). All local currencies are converted into USD using an average exchange rate for the year of their conversion.

Country	Value of tourism revenue generated by PA system in USD	Year of Data	Type of Revenue Presented	Reference
Botswana	USD 2.9 million	2012	Not specified	Republic of Botswana (2015)
Madagascar	USD 0.52 million	2013	Entrance fees	Ministry of Environment and Forest (2014)
Mozambique	USD 0.4 million	2010	Not specified	Ministry for the Coordination of Environmental Affairs (2014)
Namibia	USD 6.5 million (estimated)	2013	Entrance fees	Ministry of Environment and Tourism (2014)
Tanzania	USD 65.6 million	2013	Entrance fees	Vice President's Office (2014)
Zambia	USD 110 million to USD 179 million	2013	Values estimated for direct value added by forest-based tourism	Turpie, Warr, Ingram &Masozera, 2014, cited in Ministry of Lands Natural Resources and Environmental Protection (2015)
Zimbabwe	USD 18.7 million	2011	Entrance fees, forestry, private concessions and wildlife hunting. Not-subdivided	Ministry of Environment, Water and Climate (2015)

Table 1: Summary of revenue generated by tourism in national protected area systems presented in Fifth National Country Reports to the CBD

No reports were available from two countries:Democratic Republic of Congo and Lesotho. Six countries did not present tourism

[2]Although these missing reports were searched for both on the CBD website and through google searches they were not available.

revenue or fees information from PAs, namely: Angola, Malawi, Mauritius, Seychelles, South Africa and Swaziland. However, additional data was identified from South Africa National Parks 2014/15 Annual Report reporting tourism revenues of USD 92 million in 2014/15 from all revenue sources, of which USD 29 million (31%) accrued from entrance fees (SANParks, 2015). A financial analysis of the Seychelles PA system identified that USD 6.4 million was generated by all PAs in 2015, of which entrance fees accounted for USD 3.8 million (59%) of the total revenue generated by the entire PA network (Rylance &Barois, 2016). A similar national level analysis for Mozambique stated that USD 24.4 million was generated by all conservation areas in 2013, which included consumptive and non-consumptive tourism activities (Rylance, 2017). In Namibia's PA system tourism entrance fees equated to USD 6.7 million in 2008 (Turpie et al., 2010).

The limitations of these findings need to be acknowledged. Firstly, they do not calculate the actual financing needs of the PAs, in order to determine whether financing levels are appropriate. Secondly, the results do not specify how collected and reported revenue is utilised by the PA agencies and re-invested in conservation management.

The findings disclosethat in some countries, such as Zambia and Tanzania, tourism within PAs is a potentially significant contributor to conservation finance. However, other countries, such as Namibia and Botswana, present relatively low figures considering the importance of nature-based tourism to their respective economies. A possible reason for these discrepancies is the inconsistency in the type and level of detail provided. This could partially be due to the broad outline of the CBD reports or the availability of information at a national level to be included. For example, Zimbabwe uses PA revenue as a proxy for PA value because of the lack of national data on the value of benefits to users of PAs products and services (Ministry of Environment, Water and Climate, 2015).Strengthening the level and detail of reporting on PA revenues would assist to demonstrate the importance of PAs to national economies, thereby justifying their national and international support. Ensuring that PA systems are not simply considered financing sinks but rather generate a net positive benefit to the economy, their surrounding communities and society in general will greatly benefit the argument for conservation financing. A further challenge of the findings is that, whilst in some cases revenue or fee collection data is reported it is not necessarily reported how these fees are used towards conservation. One reason that a high number of government-managed PA authorities remain highly dependent on government/public budgets is that they are not financially autonomous, meaning that any revenue generated is returned to a centralised government budget (e.g. in southern Africa including Seychelles, Mozambique, Botswana, Tanzania). This reduces their incentive to increase site based revenue through enhanced tourism product development or promotion, as this revenue would not be retained and reinvested directly into their conservation activities (Eagles, 2002; Spenceley&Goodwin, 2007).

InWhitelaw, King &Tolkach (2014, p. 595) it isnoted that financial sustainability "means nothing if the core aspects of the PA are not maintained. On the other hand, the core aspects of the PA cannot be maintained in the absence of sufficient funding".This highlights the long-term importance of sustainably financing PAs, particularly for biodiversity conservation. According to Watson et al. (2014) only 20-50% of PAs assessed in global studies were found to be effectively managed. Lapeyreand Laurans (2016) similarlyreported that where the quality of PA management has been assessed the majority (62%) only had basic management plans and 13% had major deficiencies.Eagles and Hillel (2008) also emphasise that the recovery of park operating costs from tourism is linked more to the efficiency of the park agency's management in capturing tourism revenues than to the actual volume of tourism. This has important implications for management and the sustainability of parks. Despite the fact that tourism can and does contribute to PA financing in many developing countries, there is a finite capacity for tourism revenues to finance PAs (Whitelaw et al., 2014). Ideally, tourism revenue should form part of a suite of financing options.

Retaining revenue collected, rather than it being sent directly to central government budgets is an important consideration for the long-term financing of biodiversity conservation within PAs. Unfortunately, especially with government PA agencies, retention and reinvestment of revenue is often not allowed, at least not fully (Eagles & Hillel, 2008). This affects the incentives of PA agencies to act in a cost-effective and entrepreneurial manner. It also impacts the trust from private sector operators and potential donors that their financial contributions will directly support conservation management. Eagles and Hillel (2008) reported on a study by Goodwin, Kent, Parker & Walpole (1997), which found in their studies of parks in India, Indonesia and Zimbabwe that there was no direct relationship between park budgets and park tourism revenues. In South Africa, a business-oriented state corporation, with an independent board led by the Minister of Environmental Affairs and Tourism (the South African National Parks), was set up to manage 21 National Parks. In 2006 the system recovered 75% of its costs through tourism revenues (Eagles & Hillel, 2008). Eagles and Hillel (2008) also describe how African Parks, a foundation which developed

concession partnerships in the Democratic Republic of Congo, Ethiopia, Malawi, Sudan and Zambia, increased revenue from its park in Zambia from USD100 to USD 42,000 in the three years after 2002, generating an additional USD 9,000 for local communities. A number of governance options exist in order to increase and diversify revenue streams to finance PA management (see Borrini-Feyerabend, Dudley, Jaeger, Lassen, Pathak Broome, Phillips &Sandwith, 2013; Spenceley, Kohl, McArthur, Myles, Notarianni, Paleczny, Pickering, Turner, Bhutia &Worboys, 2015; Worboys, Lockwood, Kothari, Feary&Pulsford, 2015).PAscan also benefit through partnerships with tourism businesses to provide public-private partnerships such as concessions, co-management agreements with communities, in-kind contributions or alternatively to collect donations from tourists. For example, in their 2016 financial year, SANParks accrued USD6.9 million from tourism concessions (i.e. accommodation, restaurants and retail facilities), which was 6.9% of its overall tourism income that year (adapted from SANParks, 2016). Tourism, retail and concession activities generated 70% of SANParks overall revenue (government grants represented25%) (adapted from SANParks, 2016).Examples include voluntourism, donations channeled from tourists (i.e. travellers philanthropy;Honey, 2011) and tourism businesses to charitable foundations or directly to protected area agencies accounts. Some examples from southern Africa are provided below (based on Spenceley, Thompson,Notarianni,& Buckley,2017):

- The Wilderness Wildlife Trust (WWT) is a non-profit organisation supported by Wilderness Safaris. In 2009 research units were established in Botswana around three camps to provide logistical support, food, and vehicle maintenance (Spenceley& Snyman, 2017). Between 2013 and 2014 an estimated USD 411 000 was spent on biodiversity conservation research and monitoring in Botswana (Wilderness Holdings, 2014), and research results were shared with the government's wildlife department (Spenceley&Snyman, 2017). The research supported by WWT contributes toward the ecological knowledge that can support conservation management and conservation decision-making in the Okavango Delta (Spenceley&Snyman, 2017).
- In the Seychelles, the Seychelles National Parks Authority has partnerships with a number of tourism businesses that provide contributions to conservation, including financing researchers, collecting and providing biological monitoring data, financing equipment (e.g. mooring buoys, toilets, signage). One of their partnerships is with Global Vision International that operates voluntourism in several national parks, to collect coral reef monitoring data on behalf of the Authority (Spenceley, 2016a).

Over and above the funding that PAs may receive from government budgets or directly from tourism there are a number of other potential options for diversifying revenue streams and innovative options for the future. These include debt for nature swaps, carbon markets and payments for ecosystem services, endowment funds, natural resource extraction rights to name a few (Eagles & Hillel, 2008; Lockwood et al., 2006). Establishing a diversified income portfolio is important for long term financing planning for PA systems to avoid the impact of potential tourism shocks from either a financial crisis, such as in 2008, or from terrorism attacks or natural disasters.

V. CONCLUSION

This research has aimed to quantify and compare the importance of tourism as a revenue source for PA management in southern African countries.The paper relies largely on data presented in National Country Reports to the CBD mainly because of a lack of available annual reports by national PA agencies as well as available academic literature quantifying the benefits and impact of tourism especially at a national level. Whilst site-level research is popular, arguably because it is easier to organise and implement, national and regional level studies are important to inform strategic level decision-making. This paper address this challengealbeit significantly more research is required. The inconsistency of the level and detail contained within national level reports highlights the difficulty of collection and reporting. Additional support would enable these countries to demonstrate the importance of PA systems to national economies as well as justify greater financing support in the future.

What is clear is that tourism revenue can, and does, contribute substantially to PA financing in southern Africa. Ways to maximise this and ensure that funds are reinvested in conservation and PA management should be sought. Incentives for PA agencies to maximise tourism revenues should also be sought, including a plan for the sustainable development of tourism within these PAs. An understanding of the real costs of PAs would also provide a more thorough analysis of the requirements of PA financing. Similarly, a comparative analysis of the financing of different national PA agencies across southern African and their models for revenue retention would also be a worthwhile avenue of investigation.

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