Furthermore, traditional reporting templates are not able to accommodate for reporting of a qualitative nature, which is what many of the social objectives require. This often results in intangible impacts (both positive and negative) being ignored in cost-benefit analyses. Additionally, benefits operate at various levels, with those that operate closer to the source (primary benefits) being clearer and easier to identify, and more quantifiable, than others which operate as 'knockon' or added value benefits (secondary or tertiary benefits).

Monitoring the social impact is important in order to be aware of and to monitor any social benefits, as well as to mitigate any negative consequences of outreach or beneficiation initiatives. Social impact assessment (SIA) is a tool used to assess, or estimate in advance, the social consequences that are likely to follow from specific outreach initiatives or projects (Lahiri-Dutt, Nair & Dowling 2008). In other words, SIA allows for the identification of the likely and realised impacts of a project on people. Examples of social impacts could include changes that occur in people's way of life (how they live, work, play and interact with one another on a daily basis), their culture (shared beliefs, customs and values) and their community (its cohesion, stability, character, services and facilities) (Lahiri-Dutt et al. 2008). The primary objectives of these in the case of SANParks, would be to ensure that local communities are not adversely affected by initiatives and to facilitate their ability to reap sustainable benefits from development activities (Lahiri-Dutt et al. 2008). SIA can be used in the planning stages of projects, as well as in ongoing monitoring and evaluation processes (Lahiri-Dutt et al. 2008).

The outcome of well planned monitoring programmes for social projects and programmes should include adequate and relevant data at the correct scope and scale that can be evaluated and analysed using both qualitative and quantitative methods in order to determine whether set objectives are being met and where adjustments in management are necessary or appropriate. This highlights the need for clear objectives at a project, programme, park and organisational level. These objectives need to be aligned in a way that park-based implementation is guided ultimately by its respective contribution towards the achievement of the SANParks desired state or mission statement (Roux & Foxcroft 2011). This, in turn, calls for an aligned and hierarchical monitoring and reporting process from a project level to a national level that facilitates careful evaluation and analysis of data. The current national corporate strategy is articulated in the 'corporate strategic balanced score card' (SANParks 2010c), the measurables of which do not necessarily accurately reflect the objectives derived via the articulation of the desired state. One example of this is the corporate strategic objective relating to the growing of constituencies and the provision of access to benefits from the National Parks System. The three measurables identified here include, (1) the number of participants in environmental education programmes, (2) the number of internal awareness interventions and (3) the number of sustainable resource use projects. Where the objectives are to provide benefits and build constituencies, the true measurables should reflect both a measure of benefits and of what was learnt during the

educational programmes; however, the current measurables fail to do this. This does not reflect well at a project level and does not guide the reporting and monitoring process at this level. Similarly, whilst the corporate objective related to the facilitation of socioeconomic development is measured as a count of the community-based socioeconomic initiatives implemented, the objective is actually about beneficiation and livelihoods, but, again, the measurables do not reflect this.

Conclusion

It is clear that events during the 80-year evolution of the current people component of SANParks management has had a profound influence on the degree to which formal strategic adaptive management has been adopted in the social components of parks. However, despite the fact that biodiversity conservation has a much longer history of this type of management, and is considered to be primarily measurable and achievable, the effective implementation of SAM in these more 'tangible fields' is also fraught with challenges. The concept of parks providing benefits to people other than direct employment opportunities and recreation is even more difficult to define, measure and, importantly, deliver on, but it is widely accepted that benefit sharing through biodiversity conservation is crucial for the long-term success of protected areas.

The effective implementation of the people objectives is also full of challenges. Apart from the theoretical difficulties in identifying, quantifying and monitoring both tangible and intangible benefits, contradicting values and belief systems between stakeholder groups partially dictate how benefits are viewed and prioritised by different parties. Often, the expectations or demands for benefits far outweigh the reasonable possibilities or sustainable opportunities that arise from protected areas, with the protected areas being viewed naively as a solution to national poverty. Within SANParks, there is a need to clearly align the objectives for park-based projects and programmes with national corporate programmes. Following this, there is a need for the alignment of associated monitoring and evaluation techniques and reporting protocols at these various levels within the organisation. The formal adoption of SAM into the social components of SANParks is becoming more evident and, to date, has been implemented most successfully in the natural resource use arena. However, SANParks is currently attempting to use SAM more extensively in other aspects of the people objectives in order to facilitate learning whilst attempting to predict drivers of change that could ultimately impact on the effectiveness of promoting benefits through conservation, specifically in the sense of benefits which support livelihoods whilst reducing vulnerability.

Acknowledgements

We would like to acknowledge the SANParks People and Conservation Department for sharing their experiences, the reviewers for their valuable comments and suggestions and Dr Harry Biggs for his expert input and recommendations on improving the text.

References

- Biggs, H.C. & Rogers, K.H., 2003, 'An adaptive system to link science, monitoring and management in practice', in J.T. du Toit, K.H. Rogers & H.C. Biggs, *The Kruger experience. Ecology and management of savanna heterogeneity*, pp. 59–80, Island Press, Washington DC.
- Cambell, B.M., Sayer, J.A. & Walker, B., 2010, 'Navigating trade-offs: Working for conservation and development outcomes', *Ecology and Society* 15(2), viewed on 01 August 2010, from http://www.ecologyandsociety.org/vol15/iss2/art16/
- Carruthers, J., 2007, 'South Africa A world in one country: Land restitution in national parks and protected areas', *Conservation and Society* 5(3), 292–306.
- Department of Environmental Affairs and Tourism, 2003, National Environmental Management: Protected Areas Act 2003, (Act No. 57 of 2003), DEAT, Pretoria.
- Fabricius, C., 2004, 'The fundamentals of community-based natural resource management', in C. Fabricius, E. Koch, H. Magome & S. Turner (eds.), Rights, resources and rural development: Community-based natural resource management in southern Africa, pp. 3–43, Earthscan, London.
- Lahiri-Dutt, K., Nair, A. & Dowling, S., 2008, Social impact assessment: A manual for mining projects, Resource Management in Asia Pacific Programme, Australian National University, Canberra.
- Milne, I.B., 1996, An investigation into the development, principles and practice of environmental interpretation in South Africa: A case study of the National Parks Board. MEd thesis, Dept. of Education, Rhodes University.
- National Parks Board, 1960, 34th Annual report of the National Parks Board of Trustees, 1 April 1959 – 31 March 1960, National Parks Board, Pretoria.
- Nasionale Parkeraad, 1981a, Beplanning ten opsigte van die Raad se Inligtingsaksie vir die onmiddellike toekoms [Planning in relation to the Board's Information Action for the immediate future], Nasionale Parkeraad, Pretoria.
- Nasionale Parkeraad, 1981b, Inligtingsaksie van die Nasionale Parkeraad [Information Action of the National Parks Board], Nasionale Parkeraad, Pretoria.
- Nasionale Parkeraad, 1989, Multi-kulturele omgewingsopvoeding [Multicultural environmental education], Nasionale Parkeraad, Pretoria.
- Parent, G., 2010, 'Kruger feedback', Scientific Services Project Meeting, Skukuza, Kruger National Park, April 22, 2010.
- Pollard, S., Shackleton, C. & Carruthers, J., 2003, 'Beyond the fence People and the Lowveld landscape', in J.T. du Toit, K.H. Rogers & H.C. Biggs, *The Kruger experience*. *Ecology and management of savanna heterogeneity*, pp. 59–80, Island Press, Washington DC.
- Roux, D. & Foxcroft, L., 2011, 'The development and application of strategic adaptive management within South African National Parks', *Koedoe* 53(2), Art. #1049, 5 pages. doi:10.4102/koedoe.v53i2.1049

- Scheepers, K., Swemmer, L.K. & Vermeulen, 2011, 'Applying adaptive management in resource use in SANParks', *Koedoe* 53(2), Art. #999, 14 pages. doi:10.4102/ koedoe.v53i2.999
- Scholes, R.J. & Biggs, R., 2004, 'Ecosystem services in South Africa: A regional assessment', in R.J. Scholes & R. Biggs (eds.), The regional-scale component of the southern African Millenium Ecosystem Assessment, Council for Scientific and Industrial Research, Pretoria.
- South African National Parks, 1997, 'A revision of parts of the management plan for the Kruger National Park Volume V11 – An objectives Hierarchy for the management of the KNP, December 1997', SANParks, Pretoria, unpublished.
- South African National Parks, 2001, A social ecology policy for South African National Parks, SANParks, Pretoria.
- South African National Parks, 2006, 'Coordinated policy framework governing park management plans, draft 3, work in progress document', July 2006, SANParks, Pretoria, unpublished.
- South African National Parks, 2007, 'South African National Parks week brochure 2007', SANParks, Pretoria, unpublished.
- South African National Parks, 2008, SANParks resource use policy, ref. 17/P CSD/pol/ resource use/03-10/vs1, SANParks, Pretoria.
- South African National Parks, 2010a, 'A people objectives hierarchy', poster presented at the 9th AHEAD Meeting, Hazyview, 23–25 February.
- South African National Parks, 2010b, 'SANParks Extractive Resource Use Programme outline and objectives hierarchy', SANParks, Pretoria, unpublished report.
- South African National Parks, 2010c, Corporate strategic balanced score card. Financial year 2010/2011, SANParks, Pretoria, unpublished.
- Taljaard, S., 2008, 'An investigation into the development of environmental education as a field of practice in South African National Parks', MEd thesis, Department of Education, Rhodes University.
- Water Research Commission, 2008, 'Application and testing of a strategic adaptive management system for freshwater protection, associated with implementation of South Africa's national water policy', Project report WRC Project K5/1797, deliverable no. 3, WRC, Pretoria, unpublished.
- Whande, W. & Suich, H., 2009, 'Transfrontier conservation initiatives in South Africa: Observations from the Great Limpopo Transfrontier Conservation Area', in H. Suich, B. Child & A. Spenceley, *Evolution and innovation in wildlife conservation*, pp. 373–393, Earthscan, London.
- World Parks Congress, 2003, Durban accord, World Parks Congress proceedings, Durban, South Africa, September 8–27, 2003, viewed 01 August 2010, from http://www.iucn.org/about/work/programmes/pa/pa_event/wcpa_wpc/
- World Summit on Sustainable Development, 2000, 'Summary of the 24th Special Session of the General Assembly 26 June 1 July 2000', *Earth Negotiations Bulletin* 10(63), viewed 28 July 2010, from http://www.iisd.ca/download/pdf/enb1063e.pdf