

Conservation business: sustaining Africa's future

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Protected areas in Africa are threatened by a lack of funds to conduct their work effectively and by extremely poor communities that surround their resource-rich areas. We believe that conservation staff suffer from mental blocks. They assume that business and profitability reflect unethical processes that destroy natural resources. We developed a workshop process that allows conservationists to integrate entrepreneurial thinking with conservation principles and ethics. We measured perceptions both before and after such a workshop to assess the impact of the process. The process assisted conservationists at the Southern African Wildlife College to develop the integrated mental frameworks that are required to develop conservation into a sustainable business. The group internalised the new mental framework, whereby conservation and business, when integrated in an ethical manner, are viewed as virtually synonymous. The group also identified many innovative ways in which they could derive sustainable income from their natural resources while simultaneously achieving their conservation objectives.

Key words: business, conservation, entrepreneurship, integrated development, mental frameworks, natural resources, perceptions, sustainable, utilisation, values.

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Introduction

Throughout the world, and especially in Africa and the third world, conservation agencies list two major issues as impairing potential performance (Sonnekus & Breytenbach 2000). The two issues are:

- inadequate funds. There simply is not enough money to do what is required. Most Government agencies virtually only have enough funds to pay minimal salaries. Most have inadequate funds to cover operating expenses; and
- the degree and level of poverty that exists and is increasing amongst the general populations of developing countries. In South Africa, for example, more than 1.7 million jobs (25 %) have been lost from the formal sector since 1990 (Reserve Bank Report 2000). Conservation areas in remote rural areas lie in a sea of poverty. Communities adjacent to the parks perceive the parks as

an imposition on their ability to survive. Park authorities therefore face extreme pressures from neighbours. Both the parks and the rural people fight for survival and compete for the same resources.

The future of nature conservation is bleak: without money and with severe competition for available resources the survival of conservation as a practice and the natural environment is at risk. A different way of thinking about the existing situation needs some consideration.

This article addresses the contradictory mental frameworks that exist. The general perception that 'conservation should not be run as a business' prevails, yet the definition of conservation states clearly that conservation is the sustainable utilisation of natural resources for the benefit of mankind. It is also true that profit is required to ensure sustainability, and profit implies business (Manning 1989). We explore ways in which to

align current thinking with a new 'conservation is a business' mental framework. Most conservation agencies believe they have breached the business mentality when they run tourism (non consumptive use of resources) ventures. Conservation, however, also includes the wise use of renewable resources (consumptive use) for profit and enhancement of the conservation estate.

Philosophical tenet

The purpose of this article is to investigate the resistance of the conservation world to the business philosophy. This requires an integrated and holistic approach to the establishment and running of conservation businesses. The underpinning philosophy for this proposal is that:

- conservation business is an independent sustainable socio-economic entity;
- people will and can solve their own problems if given the opportunity and support through enablement;
- alignment, in terms of the point of departure and the envisaged future is the most critical issue in the development of a conservation business; and
- sustainability constitutes the major criterion when establishing the viability of a business.

Instead of supporting the concept that business is by nature unethical, we support "the insistence of the community that business should in every respect be a 'good corporate citizen', one that produces profit for its owners and investors but simultaneously markets safe products, combats pollution, respects the rights of employees and consumers and assists the disadvantaged" (Cronje *et al.* 2000) as well as ensures environmental sustainability (Soulé & Wilcox 1980).

Problem statement

Conservationists reject the business approach since they generally perceive business as the antithesis of conservation. There is an unwillingness to enter the business

arena and therefore there is resistance to even considering sustainable economic solutions.

Conservationists are therefore burdened by mental blocks that prevent them from even considering probably the only strategy that would allow them to survive, that is, 'let's create sustainable wealth and make profit', the key phrase being sustainable. Our problem statement is: "How do we change the mental framework of conservationists without compromising their conservation ethics?"

Conservation and business

In order to understand the situation in which the conservation agencies operate, it is necessary to look at the following issues:

The conservation situation and related mindsets

The current definition of conservation, accepted by conservation agencies is, "conservation is the wise use of natural resources". This definition was interestingly enough first coined, not by a professional conservationist, but by a politician, Theodore Roosevelt (Leopold 1933).

Conservation as practised in South Africa today evolved through the same phases as described by Leopold (1933):

- Protected areas were originally declared to safeguard decimated game populations against hunting. In most parks, including the Kruger National Park, the first game rangers focused their attention on 'destroying predators' (Stevenson-Hamilton 1952);
- Once game populations recovered, the preservation philosophy was extended, first to include predators and eventually all living organisms, and eventually the physical environment. During this phase, overpopulation by large mammals became a problem. Culling programmes were instigated and 'preservation' was replaced by the concept of 'conservation', defined as

the 'wise use of natural resources' (Leopold 1933).

- Then followed a period during which species parks were also established to protect rare and endangered species, e.g. Bontebok and Mountain Zebras, as well as parks that focus on scenic attributes, e.g. Augrabies.
- During the latest phase, the maintenance of species diversity moved the focus from single to total species and then to genetic diversity.

This reactive process set the format for much of the development of conservation philosophy and ethics. Only if a resource was either overexploited, or put under such pressure that the ecosystem showed severe pressure and signs of 'breaking down', were preservationist policies established. Is it any wonder then that the ardent conservationist believes, especially at a subconscious level, that 'utilisation' leads to over exploitation and loss of species?

The old adage, that if a man is hungry, don't give him a fish, teach him how to fish (Manning 1989) is generally accepted by all conservationists and community developers as the ideal process. However, this almost inevitably leads to over-exploitation unless sustainability is the driving philosophy. Does this mean that the old adage is inherently wrong? The relationship between utilisation and over exploitation needs further investigation.

A popular hypothesis of modern philanthropists is that early hunter-gatherer societies lived in balance and harmony with their environment. According to this hypothesis, it is only with the advent of 'modern man' that the 'man animal' became disharmonious with the environment. However, the direct correlation between the disappearance of the now extinct large mammals on the American continent and Australia, and the spread of early man (then at very low densities) on the landmasses, negates this hypothesis (Diamond 1998; Whelan 1999). The deposition of fossilised giant mammals cease soon after

fossilised humanoid bones are found in the same deposit (Whelan 1999). The magnitude of the impact has changed with time as man consumes ever more resources per capita. More recently, conservationists added the word 'sustainable' as a central theme to the definition of conservation (Soulé & Wilcox 1980). The lexicographic meaning of sustainability is: 'maintained continuously over a long time' (Tulloch 1993). Sustainable conservation will therefore require that at least the following factors involved must be sustainable:

- finance - working capital, development and venture capital, capital for infrastructure;
- wisdom - innovative applicable solutions for sustainable utilisation;
- utilisation - continuous use of resources is implied;
- natural resources - renewable and non-renewable;
- socio-political environments - monitor, track and pre-empt variability; and
- human resources - skilled, empowered and involved.

In order to address the problems they face, conservationists and conservation agencies therefore require both immediate short and long-term solutions. In the short term, they must address the lack of funds and the conflict with local populations over scarce resources. In the long term, the solutions generated must enhance sustainability in order to achieve the outcomes required by the accepted definition of conservation. For both the individuals and the agencies concerned, effective solutions require substantial mindset changes that link the concept of conservation with the concept of business.

The rationale for this approach will become evident in the course of this article, which encourages conservationists to look at conservation through the eyes of business, without compromising their ethical standards. We would like them to merely do in reality what they firmly believe (Gostelli 1995) they

have been doing all along: utilise natural resources in a wise sustainable manner.

The business situation and related mindsets

Business requires management according to the 'bottom line'. A business is a sustainable profit making entity (Manning 1989). Like conservation, one can conduct business in either an ethical or an unethical manner. Exploitation of natural resources, such as the decimation of game and unsustainable harvesting of trees are good examples of unethical conduct. This kind of 'standard behaviour' led to the perception that profit leads to destruction and therefore business in the conservation world is unacceptable. Similarly, many conservationists perceive that social upliftment occurs at the expense of natural resources. The 'us against them' mentality persists. After all, 'they' poach 'our' game whenever 'they' can. 'They' cut trees for firewood without thinking about the value of the wood or about any conservation issues.

The following statement by Anthony Hall-Martin reflects the present anti business and anti community development mindset: "I'm not particularly concerned about communities and people and all that stuff. It's National Parks' job to conserve biodiversity, not to be a community development agency. ... Everyone is on a high about community involvement in managing parks but that's bull!" (Getaway 2000). In reality however, "Business is the economic pulse of a nation and the means through which society's standard of living improves" (Cronje *et al.* 2000) which means that the improvement of the surrounding communities' standard of living can only be done effectively through the introduction of business and the creation of wealth.

Many conservation agencies solve the shortage of funds they experience by sourcing grant funds from the WWF and similar agencies. They therefore perpetuate the dependency syndrome, both internally and externally in communities. The South African National Parks Board prides itself in the fact

that they have acquired additional land for conservation, even during financially stressful periods that are due to budget restrictions and cuts (South African National Parks 1998). However, when one investigates, either landowners donated the land, or the business sector donated money to acquire the land, again confirming the dependency of conservation on business.

The solutions implemented by conservationists have not delivered the required results. In spite of all the research and noble efforts of conservationists, species still become extinct and habitats degrade at unprecedented rates (Soulé & Wilcox 1980). The question whether protected areas and conservation are destined to die, must be addressed. The struggle to overcome the lack of funds and to meet the demands of surrounding communities is being lost. It is our argument that we need new solutions based on novel approaches and thinking strategies based on fresh mental frameworks.

These mindset changes require conservationists to develop new insights into the meaning of sustainable conservation and a better understanding of why and how, to integrate business into conservation. The potential and critical role that ethical conservation can and should play in economic activities or businesses, both inside and outside of protected areas, needs to be redefined in a pragmatic fashion and needs to incorporate the psychological-sociological, environmental, economic sustainability perspective.

It should be a simple and easy transition, but changing thinking is an emotionally loaded process. In order to open the window on a new mental framework, remove mental blocks and to introduce a potential process to solve the non-sustainability dilemma faced by environmentalists, conservationists and business, we developed a process to remove the current gap between conservation and business mindsets.

Methods

The workshop's technologies are based on experiential learning activities. The qualitative approach is

suitable to ascertain the impact of experiential learning. In this instance, the outcome to achieve was to ensure that conservationists would commit themselves as ardently to the 'conservation is a business' paradigm as they are committed to 'ethical conservation' as they understand it presently, due to the process described below.

Participants

The process was presented by means of a workshop presented over five days. The participants in the workshop were diploma students from the Southern African Wildlife College. They come from ten Africa countries: the Democratic Republic of the Congo, Tanzania, Malawi, Kenya, Mozambique, Zambia, Zimbabwe, Swaziland, Botswana and the Republic of South Africa. They work for nature conservation agencies in their respective countries. All have between five to 20 years' field experience. We assumed that they represented common perceptions in the African conservation industry. We also assumed that any changes that occurred after exposure to the processes described below, would be representative of the general response that one could expect of other members of the African conservation fraternity.

Time scale

The time required for the intervention process to develop the new required mental frameworks, is five days.

Technologies

The methods used to change mental frameworks use technologies, processes and systems that have been tried and tested in various situations (Breytenbach 1993; Sonnekus & Breytenbach 2000). A description of the technologies, which build on the experiences and strengths of the past and add to the adventure of the future, follows.

Phase 1: Develop mental frameworks

In this phase, we give the participants mental tools that they can use to look at their reality from a new perspective (Handy 1989). We raise awareness regarding the importance of the participants in the process by letting them complete a questionnaire in which they give their personal opinions (Table 1). Personal expectations and fears as to a possible future

are exposed, and although this does not determine the outcome, it has a major effect on the results the process achieves (Touhy 1999).

At this stage of the process, participants become aware of the fact that they function in a minefield of differences regarding their perceptions about what the issues they raised really mean. They also realise that they must consider all the various perspectives in order to align their thinking and that they require new approaches and tools to achieve this. 'New' does not indicate a radical change, but focuses on changes in the known parameters. As discussed in Sonnekus & Breytenbach (2000), we therefore exposed them to the concepts and processes behind the tennis ball problem (Gostelli 1995), Handy's learning wheel (1989), the recipe for disaster and recipe for success (see Figs. 1 & 2), the sand-in-the-box problem and Einstein's hour (VM Services 1995), the Johari Window (Bergh & Theron 1999), and Sunter's trumpet (Sunter 1992). These technologies create new points of reference within which the required new mental frameworks can become operational.

Figure 1 illustrates that people have different perceptions, experiences and prejudices. These attributes cause people to understand different things although the same words might be used. Only once the various

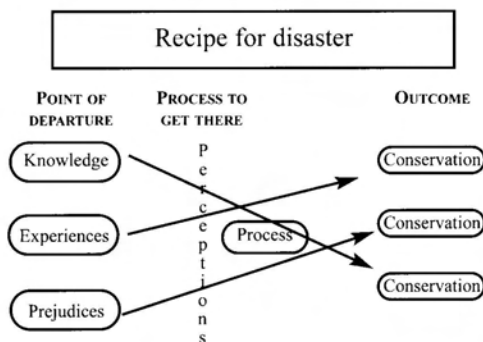


Fig. 1. Non-aligned perceptions are a recipe for disaster.

Table 1
Questionnaire to ascertain current mental frameworks

Question	Framework assessed	Outcomes to achieve
What do you expect to get from the course /workshop?	Provides an unfettered evaluation of expectations.	We expect the individual's personal contribution to the process to allow him/her to commit himself/herself totally to the process.
Define conservation	The participant's perception of what his/her business is.	Conservationists are vision and mission driven. This question allows the participant to state clearly how he/she personally defines his/her business and what is it that he/she is committed to.
Define terms used in definition	Perceptions and frameworks of conservation.	The discussion process forces participants to clarify meanings and invariably results in alignment in terms of a clear and shared understanding.
What are the five biggest problems that your organisation is confronted with?	The major problems that confront the agencies.	Personalisation is now enforced, since each individual places his/her issues on the table, thus ensuring further commitment to the process.
What are the five biggest problems that you are personally confronted with in your work?	The major problems that confront each participant.	As above.
What is the present role of business in your organisation?	The participant's perception of business in his/her organisation.	Participants need to do a reality check: business is part of their activities.
How do you personally see the potential role of business in Protected Area Management?	The participant's personal view of potential business in his/her organisation.	Participants now commit themselves to full mental participation since they begin to describe potential benefits of business to their own organisation and conservation in general.
What are the characteristics of sustainability in terms of a business?	The participant's insight into business.	Participants realise that the parameters of sustainability are constant, irrespective of the topic, i.e. business or conservation. They realise that sustainability is not solely the prerogative of conservation.
What are the characteristics of sustainability in terms of conservation of protected areas?	The participant's insight into conservation.	As above.
What does the term integrated development mean?	The participant's understanding of the interconnectedness of systems and processes during development.	Participants realise that integrated development links conservation, society and business to the outside world.
What major products do your agency produce?	How and whether the participants can identify products, i.e. understands their business roles.	List of products offered.
What major services do your agency provide?	How and whether the participants can identify services, i.e. understand their business roles.	List of services offered.

Table 1
(continued)

What are the major products that the communities that live around your protected area, produce?	The participant's understanding of local economics.	List of products offered.
What are the major services that the communities that live around your protected area, produce?	The participant's understanding of local economics.	List of services offered.

perceptions, experiences and prejudices have been brought out into the open, is it possible to align people's thinking about the concepts that are being discussed. The outcome is a common and shared understanding of terminology and processes (Fig. 2).

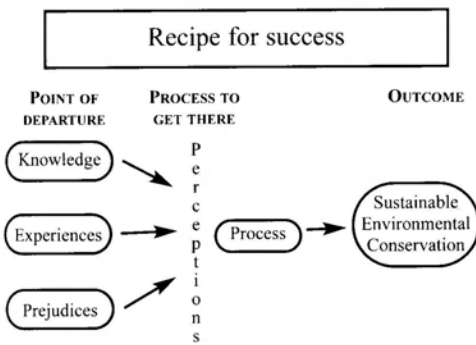


Fig. 2. Aligned perceptions enable cohesion and are a recipe for success.

- We used the same questionnaire (Table 1) to assess the participants' current understanding and personal perceptions of the problems that confront conservation agencies and their employees.
- We then aligned their concepts in relation to the definitions they used. We used questions to facilitate information sharing. Participants discussed perceptions of the concepts that are embedded in the definitions that they gave in the questionnaire. Only once alignment of what these definitions entail are achieved, can one effectively

describe and identify outcomes that need to be achieved, at a later stage in the process. This alignment is therefore a critical component of the process.

- The questionnaire given in Table 1 is also used to ascertain the participants' potential solutions to the problems experienced by themselves and their organisations.
- Participants were then exposed to the Values Systems Theory (Graves 1974), Spiral Dynamics Theories (Beck & Linscott 1991) and related values management processes. These technologies enable them to understand and use their new mental framework more effectively.

The basis laid in Phase 1 is essential for the development of new aligned and shared mental frameworks. These aligned and shared mental frameworks prepare the participants to understand the Integrated Development Process.

Phase 2: The Integrated Development

Process

In order to bring the participants to an understanding of the necessity to introduce a development process that benefits the man on the street (Baum & Tolbert 1985), we discussed Fig. 3 with the group. In essence the figure illustrates that most money that flows into previously disadvantaged communities, either as salaries or as part of development

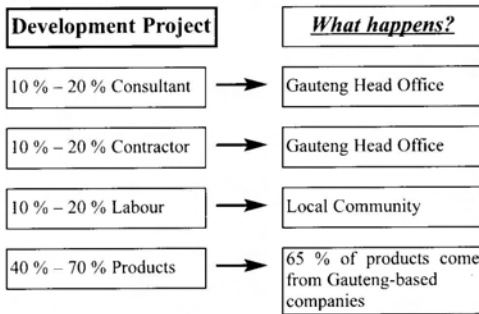


Fig. 3. Typical flow of money through an infrastructure development programme.

projects, flows directly out of the rural community back to existing businesses.

The participants then discussed the Integrated Development Process (Fig. 4), which in contrast, shows how to turn money around locally. This leads to further changes and builds constructively on the newly developed mental frameworks.

For the Integrated Development Process to be successful (Fig. 4), one needs to:

- Establish civil society structures. The community elects a representative forum. The forum represents all the people who could

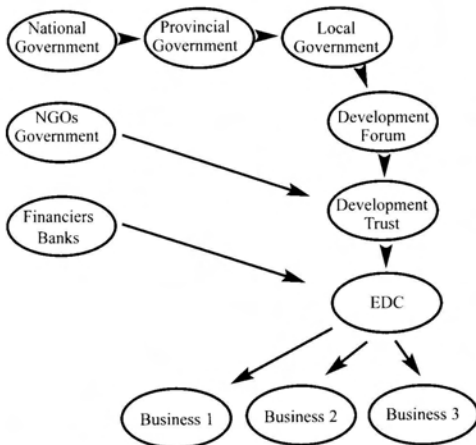


Fig. 4. The Integrated Development Process

and want to participate in guiding and driving economic growth of the area, including representatives from national, regional and local authorities. The forum goes through the same process as described in this article, and reaches consensus regarding the needs of the community and draws up an implementation process and policy that will allow them to meet these needs.

- Establish a legal entity for civil society structures. A trust is set up with representatives from the forum ensuring a close link and integration between these two bodies. The purpose of the trust is to source grant funds, and to make these funds available to the integrated development process.
- Establish a sustainable business support centre. An Entrepreneurial Development Centre (EDC) with experts playing a mentorship role is developed (Breytenbach 1993). The EDC provides the community with integrated business support. The EDC monitors all trust and business activities. Members from the community have continuous (daily) full disclosure of the activities of the trust, while shareholders have full access to their own businesses' information.
- Develop an integrated development plan and identify sustainable businesses. As part of the process an integrated development plan, which lists new businesses, is developed. When the required businesses are set up, positions are advertised and potential workers, who buy shares in the company, are selected. The selection is done in a transparent manner according to the prescriptions of the forum.
- Establish viable businesses. This Integrated Development Process allows for the sourcing of capital from government, NGOs and donors. These funds repeatedly circulate in the process and expenditure is transparent for all to monitor.

This phase equipped the participants with enough knowledge about driving an Integrated Development Process to give them insight into and courage to start an integrat-

ed development process that will address their problems of lack of funds and poor cooperation with the local communities.

Phase 3: The Four Magic Questions

(4MQ)

The third phase introduces the Four Magic Questions (4MQ) that develop clear, efficient, applicable and shared descriptors of the future and that are in line with sustainable conservation as a business endeavour. VM Services (1995) established a process that they call their Four Magic Questions (4MQ) process, which allows one to align the participants' view of their shared future effectively and efficiently. The 4MQ process projects the participants' thoughts into the future in a realistic manner without allowing present limitations to interfere in the thought processes. In our opinion, the process is more powerful than many of those utilised by De Bono (1977, 1979, 1991). Participants work from generalities to specific processes in order to capture all possible ideas and yet remain focused on reality.

In order to ensure that participants take all the potential interested and affected parties (IAP) into account when they answer the 4MQs, they can be subdivided into groups that adopt the roles of all the IAPs such as the financial institutions, government, the community development forum, the community development trust, new businesses and a

business support centre. Table 2 gives the Four Magic Questions and the purpose for asking each.

The major and essential objective of this activity is to ensure that participants develop a common vocabulary and a shared understanding of conservation as a business. The facilitator uses the replies provided to these questions to verify that each point is acceptable and that everyone has the same understanding of the meaning before recording the suggestion. At the end of these three phases, the participants reach basic agreement amongst themselves regarding the understanding of what conservation is and what they expect to achieve.

Results and discussion

The workshop delivered the results that the researchers expected. Each phase served its purpose by contributing to the change of the conservationists' mental framework. Instead of finding it difficult or even refusing to contemplate business in the conservation world, the conservationists saw business as an integral part of conservation or the sustainable utilisation of natural resources.

Phase 1: Develop mental frameworks

The written individual contributions made by participants created the perception not only that 'I am important' among them, but also that their contributions would make a

Table 2
The Four Magic Questions

Questions	Purpose
What are the outcomes to achieve?	The best possible results one would hope to achieve.
What are the outcomes to avoid?	All negative results which are undesirable.
What resources do we have that could be used to achieve these outcomes?	A list of all relevant resources which are available to achieve the required outcomes.
What are the obstacles we have to overcome? ment of any of the outcomes.	All factors that could possible hamper the achievement of any of the outcomes.

difference to the outcome of the workshop, especially since they were asked to describe their perception of conservation in their responses to the questionnaire. We therefore did not even impose the starting point of the process. The inputs received from the participants almost exclusively formed the basis for the rest of the process. The fact that they were asked to describe their personal and their organisation's problems, indicated that the workshop was specifically going to 'address my personal problems, which I have defined very clearly. More than that, everyone will take cognisance of my perceptions'. This process alone creates acceptance for the process to follow and a perceptive and open mental framework.

We exposed the now very receptive group to certain sets of information to create clear and valid new terms of reference:

- Gostelli's (1995) 'Watch the ball' experience allowed the group to understand that we all 'believe that we are doing things which we are not' and we are incapable of hearing and interpreting information until the mind is ready for it. Many conservation organisation's policies, for example, include 'commercialisation' albeit on an outsourcing basis. Whilst they firmly believe they impliment this, in reality they don't, but are not aware of this fact. The mind can only interpret a mother's warning of "Don't burn your hand!" after it has experienced the pain of a burn. Exposure to Handy's learning wheel made it possible for the group to understand that we 'learn easier through experience' (Handy 1989).
- The need to align perceptions in relation to 'where are we now', and 'where are we going' was clarified and accepted after exposure to the Recipe for Disaster and Recipe for Success (see Figs. 1 & 2). The participants realised that if

perceptions are not aligned, chaos ensues once implementation starts.

The need to explore and clarify concepts, goals, objectives and outcomes to achieve, before generating solutions, was adequately demonstrated through the use of the Sand-in-the-Box problem and Einstein's 'How would you spend your time if you only had an hour to solve a problem?' The Sand-in-the-Box problem showed that people tend to solve problems before they even understand the problem they have to solve. Einstein's hour also emphasised the importance of correct time allocation. Participants realised that they must spend at least 75% of the available time on assessing the problem.

- Discussion of the thinking and mental framework development tools that were used during the alignment process gave the participants insight into some of the perspectives that presented themselves during the workshop. The Johari Window showed that people do not really know themselves as they think they, or others do. Sunter's trumpet illustrated that in spite of the 'unknown' in the future, certain principles remain 'constant' such as trends, patterns and a wide selection of options. These insights were developed as a point of ref-

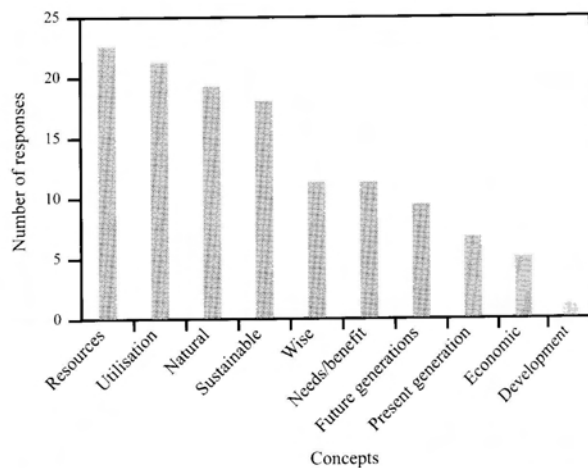


Fig. 5. Concepts related to participants' definition of conservation.

erence during the creation of the new mental frameworks and used as such whenever necessary.

- The individual definitions of conservation were analysed (Fig. 5) and discussed with the participants.

After evaluating the answers received from the group (Fig. 5), the group defined conservation as 'the wise and sustainable utilisation of natural resources'. In the group of 26 participants, the terms resources and utilisation appeared in more than 20 of the definitions supplied whilst natural and sustainable occurred more than 15 times. All the other terms appeared in less than 12 of the cases. The group was therefore well aligned in terms of the definition of conservation, which is not surprising at the end of a two year conservation training programme.

When we discussed what these terms actually mean, the group continuously referred back to practical experience. Current reality was that 'we utilise species when we have an overpopulation and they cause habitat degradation'. From this current reality, it seemed a small step to identify the basic principle of 'we utilise resources when they can be harvested sustainably'. However, apart from trophy hunting which was practised generally, only one participant from Tanzania could relate an example of utilising a product because it is available and has an intrinsic value, and not because it was a problem.

When confronted with a statement such as 'You have valuable timber species in your areas such as *Pterocarpus angolensis* and *Baikia plurijuga*. Let's harvest them and turn them into furniture and sell them for profit', the immediate and almost visceral response was: 'Never, over my dead body'. The tennis ball lesson was again reinforced, 'We all believe that we are doing things which we are not!'. In other words, they all firmly believed that they were 'utilising their resources', when in fact they were only 'culling their problems'.

The issue at hand was that in spite of defining conservation correctly, the real meaning

and implementation of the definition was not integrated into the participants' current reality and could therefore not be implemented in practice. We redefined the concept of utilisation in a process that ensured the participants were cognitively and emotionally aware, as normally occurs in an experiential learning process. The two statements below for example generated very different emotional responses in the group.

- The statement 'We can utilise a resource and derive income from it, without the resource being a problem first', was emotionally acceptable, but;
- 'Let's make money! Why don't we catch beetles and sell them?', still drew a response of 'No, that is unethical!'

It was only after long discussion and with many examples that the group suggested that if '...we as conservationists are in charge of the harvesting process, we will ensure that sustainable ethical harvesting processes are implemented.' It was therefore only once the terms were explored again that 'sustainable harvesting', so strongly promulgated by Leopold as long ago as 1933, became generally acceptable to the group. We all learned the lesson that unless we:

- explore and understand the problem (reinforced by the sand in the box problem and Einstein's hour),
- align our perceptions about what we are trying to do (reinforced by the recipe for disaster), and
- understand the principles and trends, (reinforced by Sunter's trumpet),

we would all start at different points and end up pursuing different outcomes (reinforced by the recipe for disaster). This would happen because we assumed we were aligned and thought we understood the relevant processes.

To bring greater experience and realism into the process, we then confronted the participants with the issues they had identified as the major problems confronted by their agencies in Africa (Table 3).

Table 3
The major problems confronted by conservation agencies across Africa

Categories	Combined scores
Financial problems (too little money)	22
Staff (poorly skilled, unmotivated)	15
Community issues & poaching largely poverty driven (pressure on accessing resources)	15
Infrastructure (poorly developed)	14
Management (insufficient skills & lack of experience)	13
Marketing (poorly done)	8
Politics (interference at all levels)	7
Conservation ethics (not adhered to)	5

Three major issues came to the fore:

- inadequate finances and consequences thereof - inadequate operating capital and poor infrastructure (35% of total number of responses);
- management issues - poorly skilled and unmotivated staff who lack adequate experience especially in marketing (35% of total number of responses);
- the pervasive poverty present in rural communities results in enormous pressure from surrounding communities - poaching, non-sustainable utilisation of resources and political interference (22% of total responses).

- inadequate finances and consequences thereof - inadequate operating capital and poor infrastructure (53 % of total responses);
- lack of motivation and poor skills as well as a lack of adequate experience especially in marketing (31% of total responses);
- pressure from surrounding communities - poaching, non-sustainable utilisation of resources and political interference (15% of total responses).

The two sets of data are similar. Yet, it is obvious that the lack of funds is perceived to be less serious an implication for the organisation (35% of the responses) as for the individual (53% of responses) in the organisation. The perception seems to be that the shortfall in funds falls outside of the control of the organisation. They get what is allocated to them. In addition, participants felt 'Why should it concern us? It is not our primary objective or mandate to generate profit. If there is a shortfall, it is someone else's

Participants also listed their greatest personal problems (Table 4).

In addition to the issues listed for their organisations, the participants reported problems with motivation and lack of positive responses to, and poor support for their inputs:

Table 4
Personal problems encountered by conservation officers in their work

Categories	Combined scores
Lack of funds (too little money to operate effectively)	44
Motivational factors (poor salaries, no support)	19
Poor infrastructure (inferior, inappropriate, or, no equipment)	18
Skills (lack appropriate skills)	18
Community based (pressure, yet no support from communities)	14
Politics (political interference in decision making processes)	3
Pollution	1

problem'. The shortfall of funds however, seriously influences the individual's ability to deliver effectively. For the dedicated conservationist it is very difficult to accept that they cannot meet their objectives. They therefore become demotivated and feel inadequate as there are no funds for training. The individuals therefore experience the shortfall in money as a serious impediment on their ability to perform. The organisation is, however, not measured in terms of income or profit, and therefore it does not seem to be a major issue.

Similarly, the difference recorded for community based problems could be attributed to the fact that the individuals feels themselves impotent to address community problems. In the narrow definition of conservation, it is neither their, nor their organisation's mandate to assist communities, as correctly pointed out by Hall-Martin (2000) (15% of the responses). However, if the organisation wants to do something about it, it is fine (22% of the responses).

Tables 3 & 4 reflect raw information. We explored this information and used it to develop the participants' cognitive awareness of the implications of the issues. This aligned and developed certain new insights and perceptions. Since the biggest threats to

conservation were identified as lack of funds and the level of poverty in communities that frequently surround the conservation areas, it became obvious that responsibility for the creation of wealth, both in the organisation and in the surrounding communities, should be assumed by the conservation agencies. This is in strong contrast to the position taken by Hall-Martin (Getaway 2000).

The next step in the process required the group to define and describe exactly the current and future potential role of business in conservation (Table 1). The same question was also posed once the group had completed the workshop.

The participants identified six major roles (Fig. 6):

- Generate income: 35% of the responses indicated that generating income was a major role. Initially however, only 29% of the answers indicated that this would be a future role. At the time of the second assessment, this grew to 44%.

- Community participation: Initially, only 14% of the responses showed that business had a major role in community participation, although 20% of the responses indicated that the future role would be larger. After the workshop, 25% of the responses

indicated that business had a role to play in this regard. The insight the group had developed was that business might be an effective way to involve communities in conservation.

- Conserve natural resources: The workshop did not impact on the participants' understanding of the role of business in conserving natural resources. The percentage almost stayed the same (13-14%).

- Good management: Initially the participants did not think that business had a

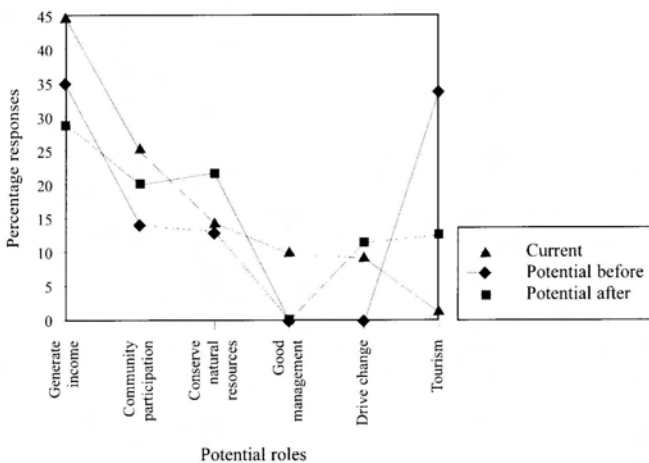


Fig. 6. Potential role of business in conservation.

role to play in ensuring good management, neither would it in future (0%). However, after the completion of the workshop, 9% of the responses indicated that business actually did have a role to play, especially in sound management and financial sustainability.

- Drive change: Although they did not see a present role for business regarding change, they hoped (9%) that in future this could be so. After the workshop, this hope was validated (8%).
- Tourism: Initially, 34% of the responses indicated that tourism currently constituted the major role of business in conservation. In terms of their future expectations only 11% thought that tourism would be important. After the workshop, only 1% indicated that tourism would be important. This can be attributed to the fact that they realised that conservation business is far more than just tourism.

The general impact was therefore one in which perceptions about the potential role of business in conservation and the linkages to communities and socio-economic and ecological sustainability was increased.

- We also exposed the participants to Graves' 1974 theory on value management. The Value Systems Theory clarifies the different ways in which people react to life. Participants explored different ways in which people function. The Value Systems Theory explained specific behaviours that the participants had to deal with amongst themselves and in their own organisations. Graves designed a colour-coded system to act as mind prompts and to simplify his Value Systems Theory. For example:
- 'purple' people are bound by the consensus of their own people;
- 'red' people use force to get their way;
- 'blue' people operate within the rules that have been laid down;
- 'orange' people are profit driven;

- 'green' people want total equality among all people; and
- 'yellow' people want to integrate knowledge into their lives.

The Values Systems Theory assisted and equipped participants with a technology that allowed them to identify the value systems required to achieve the outcomes of conservation as a business. They managed to identify that most communities and individuals had lived under colonial or dictator rule, and thus tended to be prejudiced against rule based (blue) and profit based (orange) systems. Blue was perceived to preclude certain options and orange then profited at the expense of the community. Once they became aware of the different levels of existence and the coping mechanisms required to handle these situations, they understood these aspects and were able to overcome certain prejudices. They understood that:

- consensus (purple) processes were required to align people into the business development process;
- processes would fail unless they were rule bound (blue), and;
- business is bottom line or profit driven (orange).

In summary, the participants realised that a constant openness of mind had to replace the fixed and rigid ideas that attach to ways of doing things. This openness of mind is adaptable without losing site of value directions (West 1993). Phase one is the most difficult part of the mental framework change process, as it addresses underlying values, prejudices, emotions and experience that form the basis of an individual's mental framework.

In the next section, we report on how we introduced the participants to the skills, support and processes they needed to establish and run a business. So doing, we demystified the business process.

Phase 2: The Integrated Development

Process

At this stage, participants began to understand that business development is a prerequisite for conservation success. They also realised that when conducting business within ethical norms, it complied with all the requirements of sustainability. In fact, it was a major driver of sustainable conservation. The participants however, still had no idea of how one would go about incorporating business and business processes into an acceptable delivery mechanism.

We used the diagrams on the 'Integrated Development Process' (Fig. 3) and the way money flows through development projects (Fig. 4) to describe the links among the local population, sustainable conservation and viable businesses. During the discussion of the Integrated Development Process, we addressed questions regarding the actual running of businesses in order to equip the conservationists with the required business insights.

The conservationists now grasped that generating wealth from natural resources put the required focus on the availability of natural resources, thus forcing the community to conserve the utilised resources in a sustainable manner. These new insights gave them the courage to embrace the concept of business as an integral part of conservation.

Phase 3: 4MQ

In this phase, the 4MQ process allowed the conservationists to address needs in such a way that mental blocks fall away. Typical mental blocks that we identified were:

- defence of expressed views of conservation and business at the expense of the new suggested interpretation of these concepts;
- personal power and defence of intellectual capital;
- focus on present limitations, rather than active investigation of potential solutions; and

- old paradigm thinking.

The participants now answered the 4MQ's. Whilst answering the 4MQ's, the group accepted that:

- the problems which they expressed, as listed above exist and are universal;
- the definition of 'their business' as conservationists, was acceptable to all.

The group listed 24 outcomes to achieve, which were summarised as increased income (9 items), community support and participation (8 items), improvement in the quality of life (3 items), sufficient support systems (3 items) and sustainable natural resources (1 item).

The group listed 19 outcomes to avoid, which were summarised as follows: to prevent dependency and non-profit processes (8 items), to avoid jealousy and conflict in the community (8 items), to avoid no creation of jobs and poor quality of life (2 items) and projects which do not develop support systems (1 item).

The group identified 10 resources available to them, that is human resources, some funds, access to 'almost unlimited' natural resources, historical sites, cultural resources, some infrastructure, equipment and technology, knowledge and skills. The group listed the following seven obstacles to overcome: poverty, poor access to funds, inadequate support, political instability, conflict and resistance to change.

The envisioned future described by the statements above, is one where the conservation agencies and the surrounding communities participate in a process and create not just wealth but also independence from external aid. The group's description therefore shows clearly that they had developed insight into the fact that conservation is not an insular activity; that in fact, contrary to the position taken by Hall-Martin (Getaway 2000), conservation is an integral part of business, community participation and survival. Conservation is not just about maintenance of species diversity; it is about 'the wise sustainable

utilisation of natural resources'. They also developed insight that one does not just utilise resources once they become a problem. To consolidate the point, they understood that it is acceptable to utilise resources to engender socio-economic and environmental sustainability.

To really bring the point home, we then discussed the factors that would contribute to sustainability of both business and conservation projects and processes as identified by the group (Fig. 7).

Most of the conservationists identified the following criteria:

- Projects must be economically viable. They concluded that a sustainable project, is one that generates profit. There was some understanding of this before the workshop since 33 of the responses indicated that business sustainability is dependent on profitability and economic viability. At the initial assessment, only 16 responses indicated that this same criterion was important for conservation to be sustainable. After the workshop, this increased to 59 and 40 responses respectively. In

addition, 35 responses showed that this would be critical for communities as well.

- The importance of community involvement to ensure sustainability increased from 14 (in business) and 12 (in conservation) to 35 and 29 responses respectively. In addition, 72 responses indicated that community involvement in project development was critical for sustainable development.
- Since sustainability of the natural environment was already entrenched within the group, we did not focus on this issue. Thus, we obtained virtually no change in the perceived role of a sound environment in projects. The importance of a sound environment for business therefore elicited 15 responses in the first and 16 in the second. The importance for this parameter in relation to conservation was 34 responses in the first and 39 responses in the second assessment. (If people from the business sector were taken through a similar process, perceptions on the need for environmental sustainability would be emphasised.) Similarly, there was no impact on the role of sound management (Fig. 7).

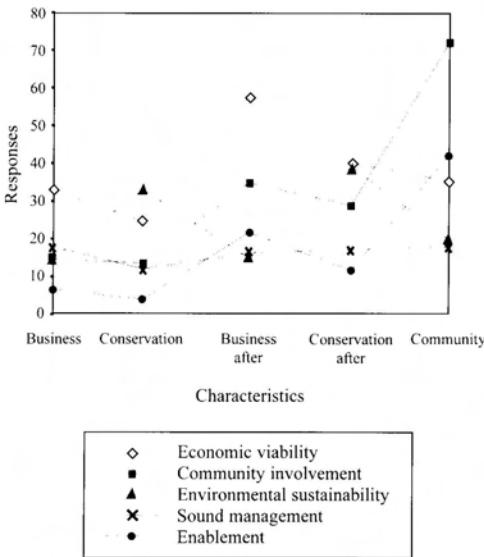


Fig. 7. Factors contributing to sustainability.

The importance of enablement as a prerequisite for sustainability showed the greatest increase. Initially the group listed only six and four responses respectively for business and conservation. At the second assessment, however, this increased to 21 and 11 responses. At the same time, 43 responses indicated that enablement was critical for community projects to be sustainable. Moreover, during the discussions, it became apparent that the group understood that the role of conservation agencies in this regard was critical.

The 'teach a man to fish' process (Sonnekus & Breytenbach 2000), highlighted that for business to be sustainable, it must function in a sustainable environment. Businesses that do not understand the resources they utilise, will over exploit. It is therefore critical that conservation principles of sustainable harvesting and resource management are integrated into business development. At

the same time, profit and economic sustainability need to be incorporated into conservation management processes.

The final component of the process was to assist the conservationists to develop an entrepreneurial philosophy and a business minded mental framework. We assisted the group with the aid of various thinking technologies to list potential ways of making money from the natural resources under their control.

The group identified potential products and services that could be developed by the conservation agencies or the communities around protected areas as part of the first assessment that was done. At this stage, they identified all the typical products and services that are available (Table 5).

At the end of the workshop, we asked the group to list all the major categories of natural resources they could use to generate income. They listed air, water, plant, animal, mineral, soil, rock and culture categories. These formed a basis from which to work, but we asked them to think innovatively by adding illogical or unexpected words. In this manner, when they combined the concept 'gimmick' with the basic elements. They identified:

- 17 air-based products, including compressed air from rhino middens to sell in bars;
- 22 water-based products, such as summer camps with aquatic activities for foreign students;
- 24 stone, mineral and soil-based products, for example Masai red ochre for face painting;
- 45 plant-based products, which included jams from indigenous fruits;
- 31 animal-based products, such as paper from elephant dung;
- 16 cultural-based products, for example marriage ceremonies.

Our method encouraged entrepreneurial thinking, as is shown in the above list of natural resource products which in no way exploited or depleted the resource base.

Conclusions and recommendations

It was evident from the results that the workshop had not altered the conservationists' dedication to ethical conservation. However, they could now address the two main problems that they experienced in their conservation areas (lack of funds and community based pressures). This was a result of their

Table 5
Potential products and services

Agency Products	*No	Agency Services	*No	Community Products	*No	Community Services	*No
Game meat	10	Accommodation	21	Curios	20	Cultural dancing	10
Fish	6	Game viewing	16	Farm products	16	Labour	9
Maps	5	Environmental education	11	Traditional food	7	Accommodation	8
Tourism brochures	5	Bird watching	7	Firewood	3	Cultural interpretation	7
Jobs	3	Catering	7	Medicinal plants	2	Cultural village	5
T shirt	3	Hiking	6	Thatch grass	2	Policing	4
Trophies	3	Hunting	6	Biltong	1	Tour guides	4
Vegetation	2	Tour guide interpretation	6	Grass mattress	1	Transport	3
Canoe	1	Transport	6	Traditional attire	1	Canoeing	2
Conservation managers	1	Information	5	Wild fruits	1	Catering	2

*No is the number of responses

new mental framework. The process removed their mental block against business. Their new mental framework allowed them to see businesses as a partner in sustainable conservation.

These are our recommendations:

- conservationists should actively promote conservation as a business;
- local communities should be tied into ethical conservation by creating conservation-related businesses;
- funds generated by conservation-related businesses should be reinvested in conservation (game management areas, parks and research);
- conservationists need to drive the conservation-related businesses due to their knowledge of natural resources; and
- mental frameworks that engender the concept of conservation being a business should be developed.

Finally, it is clear that conservationists are extremely well suited to drive the co-operation between their field of expertise and the business sector. This will prevent normal business from overexploiting natural resources due to ignorance. It will also prevent the practice of conservation being burdened by lack of funds and side-tracked from their core business when they battle with local communities who are abusing the natural resources. This process creates a win-win situation for the conservation fraternity, local communities in general and for the business community specifically.

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