

Aligning the diverse: the development of a biodiversity conservation strategy for the Cape Floristic Region

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Abstract

The Cape Action Plan for the Environment (CAPE) sought to develop a long-term strategy and action plan to conserve biodiversity in the Cape Floristic Region (CFR). The high levels of biodiversity in the CFR are matched by complex and fragmented social, institutional, policy and management systems. The development of a coherent strategy for the conservation of the biodiversity of the CFR, therefore, called for an innovative and adaptive approach, which would ensure the functional alignment of a wide variety of stakeholders and processes. This paper describes the generic methodologies used for the CAPE strategy development process and their specific adaptation to this project. The process adopted a two-pronged method, termed ‘the nutcracker approach’, which combined top-down rigour and bottom-up participation. This was necessary in order to meet the differing needs of potential international donors and South African stakeholders at national, provincial and local levels. A range of supporting tools was used, including Strategic Environmental Assessment and the Theory of Constraints. It was recognised that effective implementation has been a major stumbling block in other similar initiatives. Several elements of the strategy development methodology were therefore specifically aimed at promoting implementation. These included ensuring that the potential implementers of the strategy took part in the process and by so doing develop a sense of ownership of the outcomes, piloting the strategy in a case-study area, integrating the strategy with existing initiatives, prioritising actions for implementation, and promoting early implementation of projects consistent with the general strategic direction. There are initial indications that the CAPE strategy is having a positive impact. The paper concludes by identifying ten principles which can be applied to the development of biodiversity conservation strategies elsewhere.

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1. Introduction

The Cape Action Plan for the Environment (CAPE), which commenced in November 1998 and concluded in July 2000, aims to protect the biodiversity of the Cape Floristic Region (CFR), the smallest of the world’s six floral kingdoms and located wholly within South Africa. An overview of the CAPE process is provided in [Younge and Fowkes \(2003\)](#). The first stage consisted of a situation analysis of the current state of biodiversity in the terrestrial, marine and freshwater ecosystems

([Younge and Fowkes, 2003](#)); together with an assessment of the opportunities and constraints presented by the socio-political and economic environment ([CSIR, 1999](#)). Based on this understanding of the current situation, a biodiversity conservation strategy was developed, the key purpose of which was to set out a systematic approach that would enable conservation goals to be met. This paper focuses on the strategy formulation stage of the CAPE process. The strategy was then translated into an implementable programme consisting of integrated sets of projects, as described in [Gelderblom et al. \(2003\)](#).

The exceptional biodiversity of the CFR ([Cowling and Richardson, 1995](#)), which spans the Western Cape, Eastern Cape and Northern Cape provinces, is

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complemented by the diversity of its people. Although the Western Cape, where the majority of the CFR is located, has one of the highest per capita incomes in the country at \$2450 per annum, 18% of households live in poverty (Wesgro, 2001). On the one hand, there is a large wealthy population whose desire for holiday homes drives the transformation of large tracts of pristine coastal land (Heydenrych et al., 1999). On the other hand, there are many people who are very poor, and who for their very survival are driven to the unsustainable harvesting of natural resources.

A wide variety of government and non-governmental institutions together with private landowners are responsible for managing the CFR. Although they have invested substantially in biodiversity conservation, their input has been frustrated by a lack of coordination. This has resulted in duplication of effort (Gelderblom et al., 2003), a lack of focus on the priorities for conservation (Rebello, 1997; Gelderblom et al., 2003), and a general failure to halt or reverse ongoing degradation of biodiversity in the area (Rouget et al., 2003). As a consequence, the integrity of a globally important centre of biodiversity and long-term options for deriving socio-economic benefits from it, have been reducing progressively (Prugh et al., 1995).

The challenge in developing a strategy for the conservation of the CFR was, therefore, to reach agreement on priorities for action that would conserve its unique biodiversity in the long-term and benefit all its people (CSIR, 2000a), and to ensure that those responsible for implementation had developed a strong sense of ownership of the outcomes of the process. This paper describes the approach that was designed and applied in the development of the CAPE strategy, some of the initial responses to the strategy, and ten key principles which capture the learning gained from the process and which may be applicable more widely to the development of biodiversity strategies in other regions.

2. Designing an approach to the CAPE strategy

The technical team responsible for designing the approach to strategy formulation comprised both professional consultants and representatives of implementing agencies. The consultants had a wide range of expertise and were appointed both to undertake preparatory situation analyses covering the biophysical and human environment (the latter included legal and policy issues, socio-economic drivers, and institutional and financial implications); and to ensure that all role-players were adequately involved in the development of a strategy and implementation programme (Younge and Fowkes, 2003). This team designed an approach to strategy formulation that was informed by international experiences in conservation planning (Miller and

Lanou, 1995; Miller, 1996; Peck, 1998; Noss et al., 1994), and by local requirements, thereby combining a top-down and bottom-up methodology. This paper focuses on the top-down approach, while Younge and Fowkes (2003) describe the public participation process that provided the bottom-up component.

2.1. Participation programme

A sense of ownership was regarded as critical to the successful implementation of the strategy. This required an innovative and adaptive approach that would bring together all role-players in the systematic development of a coherent strategy and implementation plan. In order to achieve this, the participation programme was structured to allow three levels of involvement. These levels were determined by the preferences of the role-players and their potential contribution to implementation (Younge and Fowkes, 2003). The broadest level of involvement was the wider South African public who were kept updated as to progress with the project by means of a publicity programme.

Stakeholders who would be impacted positively or negatively by the outcomes of the project formed the next level of involvement and were directly engaged through individual interviews and questionnaires. These stakeholders were identified on the basis of the following five criteria: (1) land/resource users; (2) land/resource owners; (3) those with legislated responsibility; (4) those who could influence or be influenced by the project; and (5) those who would inherit responsibility for implementation. Due to the large number of potential stakeholders, wherever possible, the public participation process engaged with stakeholder groups rather than individuals. For example, focus groups were constituted around particular areas of interest, such as tourism and agriculture.

The last and most intense level of engagement was with those agencies that would be involved in implementation. These organisations ranged from government bodies to non-government organisations (NGOs) and were initially engaged in the project by means of a high level cross-sectoral steering committee. This steering committee played an important role in building support for the CAPE strategy at various political levels, from local to national government. As the project progressed, key representatives of the implementing agencies also became involved in the technical team undertaking the actual analysis and were intimately involved in both the development of the strategy and the implementation plan. This approach ensured a high level of buy in for the final product, which was critical in the strategy formulation phase to ensure that there was consensus on priorities. Strong ownership is also crucial for implementation, particularly when addressing the difficult issue of internal re-alignment of resources

around the priorities identified by the strategy ([The Environment and Development Group, 1999](#); [McNeely and Guruswamy, 1998](#); [Gelderblom et al., 2003](#)). As a consequence of the successful development of consensus and ownership, the completion of the project culminated in the formation of coordinating structures representing both political bodies and implementing agencies, bound by formal Memoranda of Understanding which committed them to the implementation of the strategy ([Gelderblom et al., 2003](#)).

2.2. *International experiences and drivers*

Biodiversity conservation projects differ from conventional development projects in three main areas ([The Environment and Development Group, 1999](#)). First, they tend to be focused on long-term benefits that may only affect future generations. Secondly, the distribution of costs tends to be local while the benefits may well be more global in nature. Finally, although many individual species are used for economic benefit, it is more difficult to define broader benefits from conserving biodiversity per se ([Turpie et al., 2003](#)). For these reasons, biodiversity conservation is frequently the primary concern of the international community rather than local communities and national governments. Donor-funded projects are often based on external priorities and are frequently not well integrated with local development processes. For long-term sustainability of initiatives, however, this global–local integration is critical, unless funds from the international community are permanently available ([The Environment and Development Group, 1999](#)). In recognition of the importance of having strong local rather than international ownership, the initial focus of CAPE was on local participation and the outcomes of the process were consequently only translated into a log frame format and presented to international role-players once local buy-in was secured.

This local buy-in was critical to ensure the realignment of internal resources around agreed priorities necessary for long-term sustainability. By ensuring that this internal commitment was in place, the project was able to assure institutional funders that their resources would be used for bridging funding or short-term projects, the longer-term costs and benefits being internalised within the country. In addition to using the strategy and implementation plan to try to secure bridging financing from the international community, CAPE also identified opportunities to take advantage of the international pressure for conservation through mechanisms such as green labelling systems.

While international support has a positive impact on the protection of globally significant diversity, there are also internationally based drivers of biodiversity loss. In the CFR the most important internationally influenced threats are tourism-driven land transformation, par-

ticularly along the coast, and marine over-exploitation. In the case of the latter, international cartels have created an enormous demand for marine resources. The resultant intensive poaching has led to the local extinction of abalone in several areas.

2.3. *Local requirements*

There are over 30 institutions (e.g. Western Cape Nature Conservation Board, South African National Parks, Department of Environment Affairs and Tourism, and Department of Water Affairs and Forestry) within the CFR that implement biodiversity conservation measures, or that are involved in sectors having direct or indirect impacts on biodiversity (see [Younge and Fowkes, 2003](#)). These institutions encompass the government, non-government and private sectors. They are dispersed vertically between the national, provincial and local government levels as well as horizontally, between different regions, provinces and sectors, but a common trend is that they are all facing the erosion of financial resources and the loss of skilled and experienced personnel ([CSIR, 1999](#)). In addition, a large number of local communities, particularly those in rural areas, are very dependant on resources drawn from the natural environment. A strong vision was therefore required to bring these disparate groups together. It needed to be flexible enough to cater for diverse needs and to provide a clear focus to enable the most efficient use of stakeholders' time.

2.4. *Combining top-down and bottom-up approaches*

In view of the immediate threats facing the biodiversity of the CFR and the limited availability of local funds, it was clear from the start that substantial donor support would be required to kick start the implementation of CAPE. Attracting this support required the application of a rigorous methodology, and the production of structured outputs. At the same time, the fragmented nature of policy, administrative and social interests within the CFR, as described earlier, meant that extensive consultation with a broad range of South African stakeholders was essential. This meant that 'top-down' rigour needed to be married with 'bottom-up' participation. We have termed this two-pronged method of strategy development 'the nutcracker approach'.

The bottom lever of the nutcracker is the participatory process needed to harness existing resources amongst the various institutions and communities within the CFR and to ensure representative participation, involvement and exercise of political will by these groups. In support of the three aspects of the participation process, described briefly in [Section 2.1](#) and in more detail in [Younge and Fowkes \(2003\)](#), local stakeholder

perceptions and needs were captured through two additional activities. Firstly, a detailed case study was carried out in a particularly threatened area within the CFR, the Agulhas Plain, and these findings integrated into the strategy (CSIR, 2000b). In addition, participants in the process were asked to submit to the CAPE team for consideration, individual projects which were linked to the goals of CAPE and which required additional funding (CSIR, 2000c). These projects were evaluated in terms of their alignment with the strategy, and, where closely aligned, incorporated into the programme of priority projects essential to achieving the strategy.

The top lever of the nutcracker is required to ensure scientific rigour, leadership and the focus of resources on priorities, so that the output of the process can feed into an implementable plan. This was achieved through a structured strategy development process that targeted the institutions primarily responsible for managing biodiversity in the CFR, and is the focus of this paper. The simultaneous application of both levers aims to ensure that the ‘nut’, which is the central problem, is ‘cracked’ or effectively addressed.

A good example of an issue identified through the top-down process of strategy development and refined through local participation in the Agulhas Plain case study was that of sustainable harvesting of resources. The Agulhas Plain is one of the most productive areas in the CFR and produces wildflowers for both local consumption and export (Heydenrych et al., 1999). Pilot studies already underway in this area were able to provide very valuable insights into the practicalities of developing a green labelling system for the international marketing of sustainably harvested wildflowers. These guidelines for sustainable harvesting target privately owned land in particular, giving the natural vegetation a substantial value and thereby encouraging its conservation. As a consequence of this input, two projects were added to the implementation programme of CAPE, one

focused on developing guidelines for sustainable levels of harvesting for all widely harvested wildflower species and the other focused on developing mechanisms for marketing these green products.

The top-down and bottom-up approaches to multi-actor decision making are similar to Kornov and Thissen’s (2000) conceptualisation of a rational or unicentric approach versus a network or polycentric approach, respectively. Table 1 summarises the key differences between these two approaches. Political power play and compromise-making (networking approach) are often more important than scientific evidence (rational approach) in determining policy outcomes. The CAPE team recognised the necessity and value of combining both approaches to meet the differing needs of the range of stakeholders at the international, national and local levels.

2.5. Supporting tools

Two main supporting strategic planning tools, described in the following paragraphs, were utilised in the CAPE strategy development process to ensure rigour and transparency. The Strategic Environmental Assessment (SEA) process, as developed and adopted in South Africa (DEAT, 2000), provided the framework for the overall CAPE process. The Theory of Constraints approach (Goldratt, 1990, 1997) formed the backbone methodology for strategy formulation. SEA is a structured process that aims to ensure that environmental issues are addressed early in the process of formulating plans and programmes. Elements of SEA methodology used in CAPE include: development of a vision; the situation assessment which describes the status quo; and, development of an implementation plan describing how the selected programme is to be deployed (DEAT, 2000, p. 18). The overall process for the CAPE project, broadly based on the SEA model combining the

Table 1
Key differences between the rational/unicentric and the network/policy-centric approaches to multi-actor policy-making (from Kornov and Thissen, 2000)

Aspect	Rational or unicentric model ‘top-down’	Network or polycentric model ‘bottom-up’
Power structure	A central decision-maker or decision-making group	Decision-making takes place in a network of interdependent actors
Primary basis for decisions	Rational/intellectual	Political/strategic power play
Decision results from	Scientific evidence led by pre-formulated objectives/goals	Compromise, often more determined by available means and solutions than by goals
Process	Sequential, in rational steps or phases	Unpredictable rounds
Basis for agreement	More knowledge will lead to convergence	Political will and support determines possibility for solution
Role of norms and values	Explicit separation of objective knowledge from values	Facts and values cannot be separated; objective knowledge does not exist
Use of knowledge	Instrumental, decisive	Knowledge can provide idea’s, but will mostly be used as strategic ammunition
Focus of support	Technical/analytical	Process management, catalytic, search for exchanges, compromises

unicentric and polycentric approaches to policy formulation, is shown in Fig. 1. This diagram shows the iterative relationship between the situation assessment conducted for CAPE and the strategy development phase of the project, both of which informed the development of the implementation programme (see Gelderblom et al., 2003).

The Theory of Constraints, an approach based on rigorous cause–effect logic, formed the backbone of the CAPE strategy development process. The process is based on necessity and sufficiency logic and is designed to ensure that the elements of the strategy are both necessary and sufficient to achieve the desired goal. The analyses are typically aimed at identifying the root cause of a problem, and the systematic design of interventions (e.g. management actions, new legislation, further research or institutional change) to enable substantial and sustainable improvements (Goldratt, 1990, 1997; Grobler, 1997; Weaver et al., 1999). The requirements of this Theory of Constraints methodology defined the six steps used in developing the CAPE strategy, as described in Section 3 of this paper.

3. The development of the CAPE strategy

3.1. Overall process and methodology

The six steps guiding the strategy formulation phase of the CAPE are described in detail in the following sections. The overall process focussed around a 3-day workshop of key role-players held during 16–18 February 2000. There was considerable work carried out before and after the workshop to ensure that it provided sufficient raw material from which to develop the strategy. The first source of material was the situation assessment. Participants at the February 2000 workshop were provided with preparatory material that summarised its findings, including an evaluation of the opportunities and constraints affecting conservation of biodiversity in the CFR. The second source of material was a preliminary version of the strategy that was developed by the CAPE team prior to the main workshop, using the Theory of Constraints methodology. This drew on a combination of specialist knowledge garnered during the situation assessment and

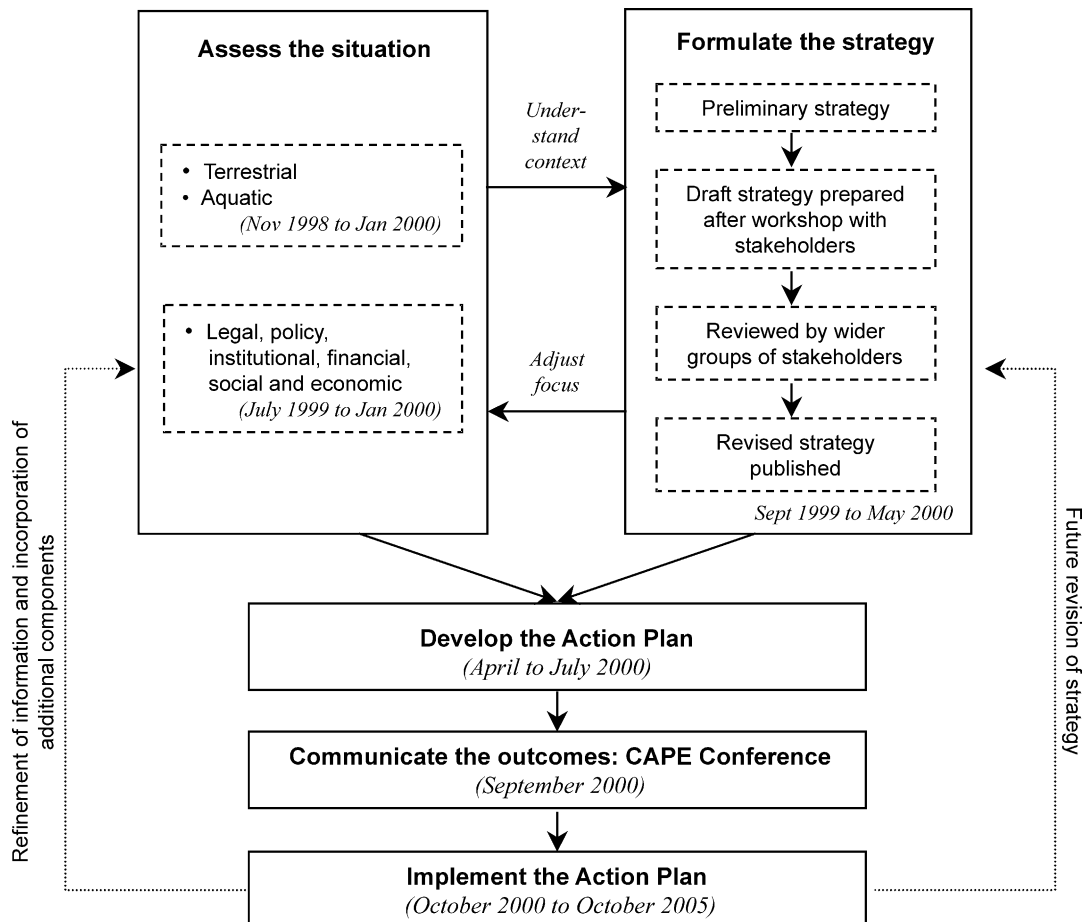


Fig. 1. Approach to the Cape Action Plan for the Environment (CAPE) Project.

information arising from meetings with focus groups, implementing agencies and the wider public. During the workshop, the preliminary strategy was scrutinised and revised to produce a more detailed strategy consisting of eight components within three broader themes (Table 2). Meetings were subsequently held with stakeholders to further develop the theme strategies. Attending the workshop itself were 60 representatives of stakeholder

Table 2
Themes and components that provide structure to the CAPE strategy (from CSIR, 2000a)

Themes ^a	Strategic components
Conserving biodiversity in priority areas	Strengthening on- and off-reserve conservation
Sustainable use of resources	Supporting bioregional planning
	Conserving biodiversity and natural resources in catchments
	Improving the sustainability of harvesting
	Promoting sustainable nature-based tourism
Strengthening institutions and governance	Strengthening institutions
	Enhancing co-operative governance
	Promoting community involvement

^a During the implementation of the strategy the components of certain themes have been re-structured, as reflected in Gelderblom et al. (2003).

groups and implementing agencies. The draft strategy was circulated for comment to the actual participants as well as a wider network of 1500 stakeholders whom they represented, before revision and completion by the CAPE team.

The specific methodology applied to the development of the CAPE strategy differs from the more conventional methodology frequently applied to the development of biodiversity strategies (Fig. 2). The key difference between the two methodologies is that the CAPE process emphasises identifying constraints as a mechanism for developing objectives and the consequent strategy, whereas the conventional methodology places more emphasis on identifying and evaluating options for action. The main advantage of focussing on constraints is that they are not always obvious, and their identification frequently enables participants to develop innovative solutions. This approach also allows rapid focus to be placed on priority areas within the broader framework of a logical strategy.

3.2. Step 1: Development of a vision

The purpose of the CAPE vision was to create a mental image of a desired future for the CFR. It was important that the vision be easily understood and appeal to as wide a range of people as possible. A draft

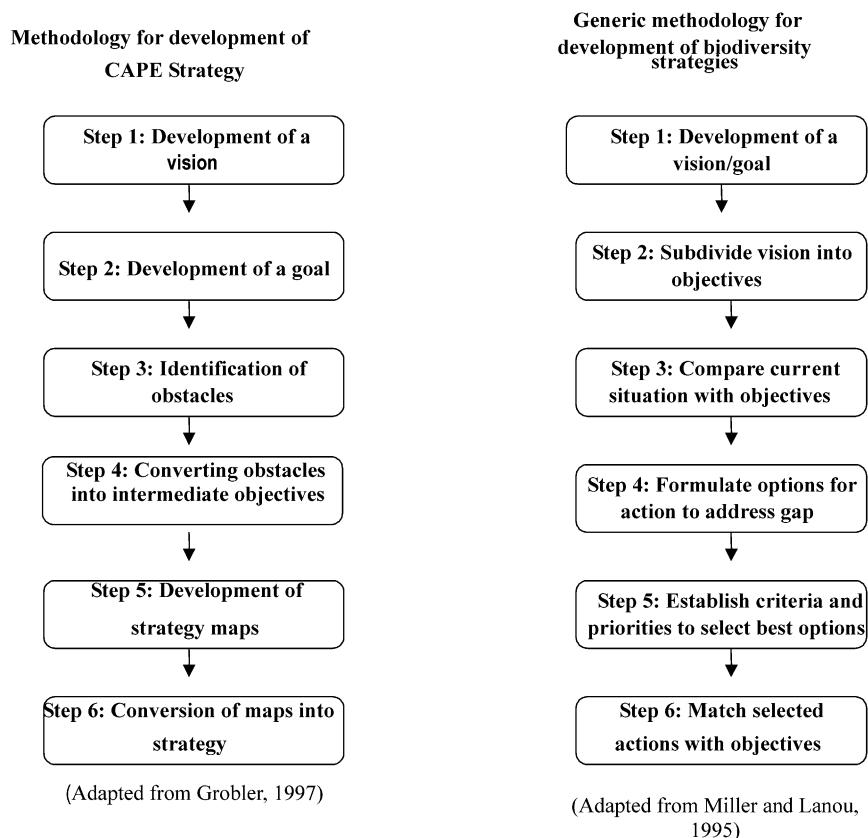


Fig. 2. Comparison of methodologies for preparation of biodiversity strategies.

vision developed by the CAPE team was debated and agreed upon at the commencement of the February 2000 workshop. The development of a common vision was an important step in identifying a common purpose amongst the wide range of participants with differing specific organisational needs and priorities. In the ongoing strategy process, the vision was used as a compass to steer participants towards an agreed goal and set of objectives.

The vision for CAPE is:

We, the people of South Africa, are proud to be the custodians of our unique Cape Floristic Region, and share its full ecological, social and economic benefits now and in the future.

3.3. Step 2: Development of a goal

While the vision provided the more emotive and broadly appealing image of a future desired state for the CFR, a clearer statement was required that articulated what would be done, by when and by whom. The goal for CAPE, which was developed by participants at the February workshop, describes the new reality that will be achieved as a result of the successful implementation of the strategy.

The goal for CAPE is:

By the year 2020, the natural environment and biodiversity of the Cape Floristic Region are effectively conserved, restored wherever appropriate, and delivering significant benefits to the people of the region, in a way that is embraced by local communities, endorsed by government and recognised internationally.

3.4. Step 3: Identification of obstacles

In accordance with the Theory of Constraints, workshop participants identified the obstacles that were preventing the realisation of the goal. An obstacle was defined as something that currently existed and that blocked the achievement of the CAPE goal. People usually are able to clearly articulate negative issues and this part of the process elicited strong participation, with numerous obstacles being identified by these groups. Participants drew on the information generated from the situation assessment together with their personal insights and practical experience.

3.5. Step 4: Converting obstacles into intermediate objectives

Workshop participants then reworded the obstacles identified into positive statements (i.e. intermediate

objectives). This process did not simply entail transposing the negative obstacles into positive factors, but rather envisaged the future state that would be achieved should the obstacle be overcome. The intermediate objectives constituted the conditions necessary, or the strategy elements required, for the overall CAPE strategy to reach its goal. This process is demonstrated in Table 3, which shows four objectives that need to be achieved in order to reach the goal for the component *Strengthening on- and off-reserve conservation*.

3.6. Step 5: Development of strategy maps

A strategy map consists of the logical linkage of the intermediate objectives. The linkages were determined by considering cause and effect relationships between the objectives, for example, by asking whether “in order to have A, must we have B?” or vice versa. Once the initial strategy map was constructed through linking the objectives, it was tested for ‘necessity’ and ‘sufficiency’. Necessity was tested by asking whether “in order to have A, is it necessary that we must have B, C and D?”, or whether “B and C will suffice?”. Sufficiency was tested by asking whether “if we have B, C and D will this be sufficient to attain A?”.

As an example, Fig. 3 contains a strategy map for the component focused on *Strengthening on- and off-reserve conservation*. This strategy map, which has been simplified from the original version (contained in CSIR, 2000a) for the purposes of this paper, shows how the objectives listed in Table 3 are necessary for the achievement of the goal. Thus, in order to achieve effective on- and off-reserve conservation, one needs to have conservation priorities outside of formally protected areas secured *and* have government adopt a bioregional conservation policy framework *and* have mechanisms to link funding sources to reserve priorities *as well as* having sufficient capacity within government to apply these mechanisms and supportive laws in partnership with civil society.

The strategy map also depicts how each of these higher-level objectives is in turn supported by the next level of objectives. For example, in order to secure conservation priorities outside of formally protected areas (objective 1 in Fig. 3), priority areas have to be continually identified (objective 1.1) *and* close working relationships need to be developed between implementing agencies and communities (objective 1.2) *and* legal and financial mechanisms for securing conservation priorities outside reserves need to be in place (objective 1.3). Each of these objectives are in turn broken down into further requirements, until we reach the current reality and have clearly identified the first steps that need to be undertaken in order to initiate the achievement of the goal. For example, objective 1.1.2 in Fig. 3

(conservation priorities are identified and agreed upon with regard to pattern and process) has of course been the focus of the biological component of the situation assessment as described by the papers in this volume which address biodiversity issues, particularly Cowling et al. (2003).

The strategy map thus both identifies a set of objectives and the sequence in which they need to be undertaken in order to reach the goal. This forms the basis of prioritisation of actions. Although actions at the bottom of the map have to be completed first if the higher-level goals are to be achieved, experience from CAPE has shown that there are instances where it is important to initiate activities at a higher level before fully completing lower objectives. Two examples are given of when this might be appropriate:

Firstly, this is appropriate if there is an existing context (e.g. legislated policy or coarser-scale plan) in which these higher-level objectives can developed or if these objectives are expected to be bottlenecks to implementation. For example, due to the long lead in time to develop legislation, it may be pragmatic to start developing new legal mechanisms for securing conservation priorities outside of reserves (objective 1.2 of Fig. 3) before all the supporting objectives are fully completed, as long as they are working to some degree within the context of existing policies.

Secondly, this could be appropriate if the strategy was being implemented at different spatial scales. For example, adequate capacity for conservation research and strategic planning exists at a CFR-wide scale (objective 1.1.1.2 in Fig. 3). This has led to significant progress already being made in the identification of conservation priorities with regard to pattern and pro-

cess (objective 1.1.2 in Fig. 3) at a regional level through the CAPE situation assessment (Cowling et al., 2003). This in turn has enabled priority areas to start being included in regional planning (objective 1.1 of Fig. 3). However, at a local scale, capacity for conservation research and strategic planning (objective 1.1.1.2) is inadequate, and prevents the achievement of the above objective of identification of conservation priorities at a local scale.

3.7. Step 6: Conversion of maps into strategy

Because of the wide scope of the strategy, and large number of ideas generated, the strategy mapping was structured into eight broad components, which were derived from both the findings of the situation assessment and the strategy development process. Their inter-relatedness resulted in three cross-cutting and five sector-specific components being identified as shown in the Appendix.

The strategy maps were used by the CAPE team as the basis for the development of separate detailed strategies for each of the eight broad components. Each strategy consisted of a goal and a series of objectives. These draft strategies were reviewed in collaboration with key stakeholders prior to finalisation. The strategy report is available from the WWF South Africa Website at <http://www.panda.org.za/projects>.

4. Ensuring that the strategy can be implemented

Several elements of the methodology described above were aimed at ensuring that the strategy could be implemented. These are described later.

Table 3

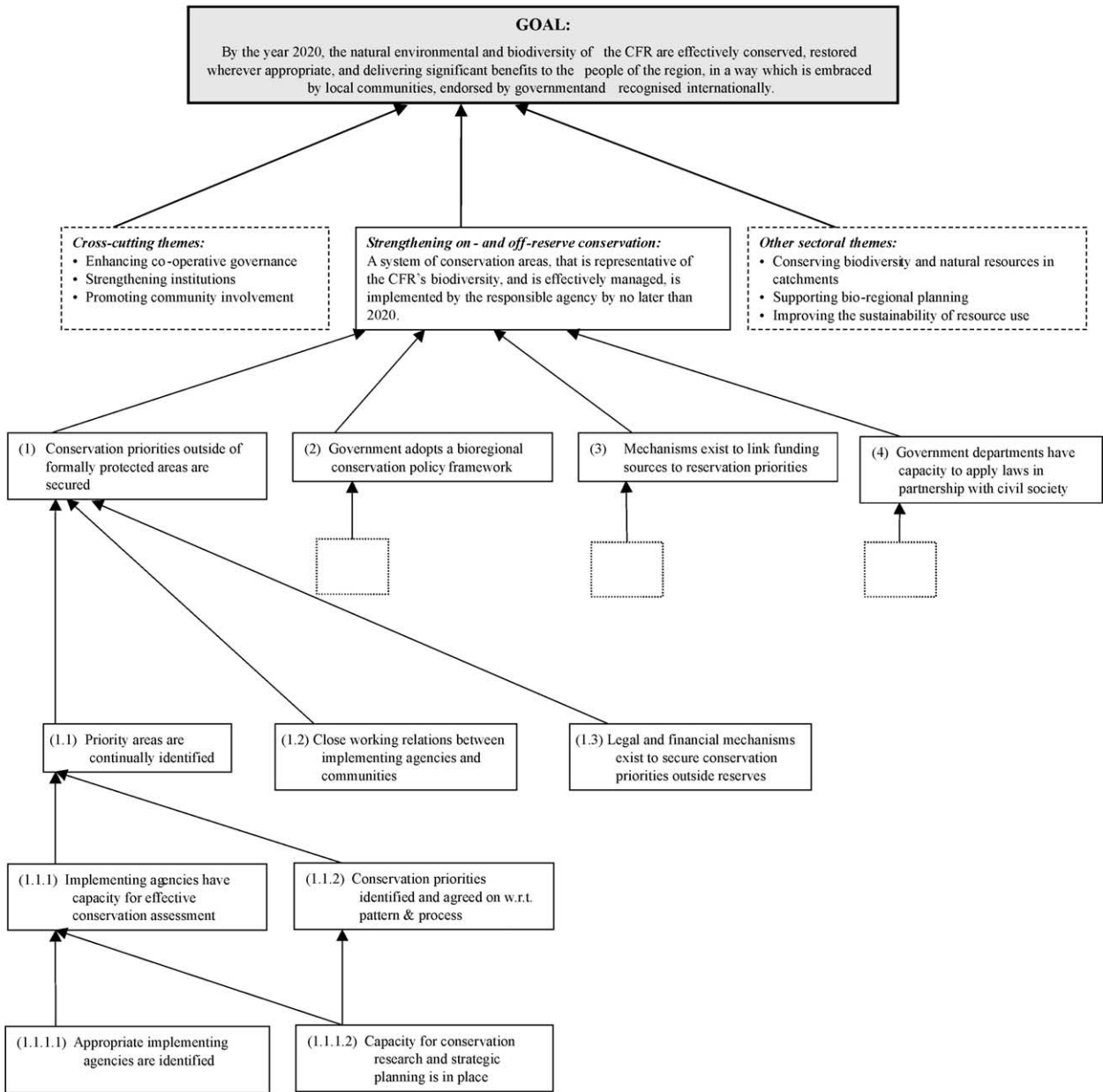
Examples of obstacles and corresponding objectives from the component of the strategy that addresses *Strengthening on- and off-reserve conservation*, showing how each obstacle is converted into an objective

No.	Obstacle	Objective
1	Few mechanisms to secure conservation outside formally protected areas	Conservation priorities outside of formally protected areas are secured, through using tools such as land swapping, covenants and tradable development rights
2	Rapidly escalating threats to biodiversity, especially novel forms of land-use, in areas of high irreplaceability	National and provincial government develops and adopts an appropriate bioregional conservation policy framework
3	Lack of resources for both the management of existing conservation areas and for strategic interventions such as the purchase of priority areas, rapid biodiversity assessments and legal challenges	In all protected area systems, funding sources are linked to priorities to ensure effective biodiversity conservation
4	Severe lack of capacity to coordinate strategic and systematic conservation planning initiatives	The relevant statutory authorities have the capacity to implement appropriate legislation and incentive mechanisms in partnership with civil society to achieve effective biodiversity conservation

4.1. 'Ground-truthing' of strategy

Strategies developed in multiple-stakeholder workshops can often become very generic, high-level statements, owing to the give and take of developing consensus. While there is convergence on the statements made, there will be multiple interpretations of these statements and they may not be sufficiently specific to guide action. It is therefore important to 'ground-truth' a strategy to ensure that it can be realistically imple-

mented. To reflect on the major CAPE strategy directions when applied at the local scale, a focused interactive survey involving local implementing agencies and community organisations was conducted in the Agulhas Plain sub-region. This interactive survey involved individual interviews, which were followed up by a workshop where the relevance of the overall strategy was tested for the region. The Agulhas Plain was chosen to coincide with the more detailed biodiversity assessment carried out as part of the situation



Key:
 □ Additional objectives, which, for the purposes of this paper, are not included

Fig. 3. Strategy map, showing how the objectives for the component of the strategy that addresses *Strengthening on- and off-reserve conservation* link together towards achieving the goal for the Cape Action Plan for the Environment (CAPE) Project.

assessment (Cole et al., 2000). This ‘ground-truthing’ was undertaken in parallel with the finalisation of the strategy. It not only validated the more generic CFR-wide strategic direction, but created confidence among the CAPE team that there could be seamless application and buy-in at a local level, where the CAPE strategy must be applied. In addition to promoting the alignment of diverse interests horizontally, the survey provided insight into the challenges and opportunities for vertical alignment among the national, provincial and local level institutional structures.

4.2. *Integration with existing initiatives*

The participatory approach adopted in the strategy formulation process was designed to complement the efforts of role-players who were already implementing projects that contributed to components of the strategy, thereby encompassing existing initiatives within the broader strategy framework. Consequently, many existing implementation actions were validated.

This approach also created an opportunity for role-players to identify a specific course of action within the generic approach described in the strategy which they could implement, and enabled role-players to focus on those parts of the strategy that directly impinged on their interests or responsibilities. This avoided the need to later ‘sell’ the strategy to implementing agencies and other role-players in order to secure implementation.

Another way of looking at the strategy is to describe it as being made up of many different pieces of the same puzzle. In this analogy the CAPE team saw its purpose as building the best possible image of the picture on the puzzle box. This enabled each participant to perceive the piece of the puzzle that they currently held and to see where it fitted into the overall strategy picture. More importantly, it was then possible to determine which pieces were missing, and to take a proactive approach to designing an appropriate piece to fill each gap. Key projects or interventions supporting the strategy were generated in this way.

4.3. *Early implementation*

Strategy is concerned with creating a logical alignment of existing information and action, with role-players deriving insights about which activities were no longer appropriate and which could therefore be discarded. It can also confirm which existing actions need to be extended or strengthened. As consensus was achieved on major strategic directions during the CAPE process, implementing agencies were encouraged to realign internal resources and pursue priority projects immediately, and not to delay implementation until the full implementation programme was in place.

5. **Early positive results from the strategy**

Although the CAPE strategy was only completed in May 2000, there have already been indications of its positive impact. One of the major benefits is that the stakeholders that prepared the strategy have reached agreement on the conservation priorities for the CFR.

Another positive result is that the strategy has given direction to individual government departments or organisations responsible for different aspects of conservation of biodiversity. A new statutory nature conservation organisation—the Western Cape Nature Conservation Board—was established in the Western Cape during the development of the strategy. This organisational reform was supported by the development of the CAPE vision and strategy, providing the new Board with a framework within which to operate. The new Board members participated in the strategy development process and the CAPE team was able to feed directly into the establishment process with a high degree of insight and precision. The Board ultimately adopted the vision and strategy developed by the CAPE project and the strategies of all the Board’s regions have been aligned with the overarching CAPE strategy. In addition, the Board systematically worked through the CAPE strategy as an organisation, identifying which components it would implement.

Another early benefit of the strategy process is that it has brought together different stakeholders and is already resulting in pooling of resources. Collaboration between government departments involved in nature conservation, planning and agriculture in the Western Cape (where most of the CFR occurs) has increased significantly. This is being realised, for example, through joint training and integration of extension services between conservation and agricultural authorities (Project 4.5 in Gelderblom et al., 2003).

The strategic and systematic framework that has been developed can be contrasted with the sometimes ad hoc and static plans of the past. The value of the strategy exercise has been recognised outside the CFR and members of the CAPE team have been invited to share their insights and experience of eco-regional planning for adaptation and use in other eco-regions.

Finally, the CAPE strategy provided a basis for the implementation programme (see Gelderblom et al., 2003). This plan provides a rationale for both internal agencies and external donors to re-examine their own priorities for allocating funds for conservation in the CFR. Due to the strong support for the strategy in the region, very few role-players are able to ignore the CAPE strategy and adopt divergent programmes, despite it not being an obligatory framework. A key strength of the CAPE strategy is that it creates an imperative, and various role-players are anxious to demonstrate their alignment with it.

6. Opportunities for improvement

The most significant aspect of the strategy process that the CAPE team would do differently would be to run the rapid, preliminary strategy development exercise prior to the situation analysis that was undertaken by various specialist research teams (Younge and Fowkes, 2003). This change in approach would enable the specialist teams to focus their situation assessments in areas where information of direct relevance to the strategy could be gathered. The strategy revision and finalisation process could then follow the conclusion of the more focussed situation assessment. Such iterations between the situation analysis and the strategy development process, we believe, would add rigour to both the situation assessment and the resultant strategy and implementation programme. In addition, this would promote a more adaptive approach to the long-term conservation programme that must integrate both iterative strategic thinking and implementation.

7. Key principles

From our experience in the development of the CAPE strategy, we have extracted ten key principles relevant to the development of other biodiversity strategies:

Look ahead—a key to the success of the project was the focus provided by a common vision of the desired future state of the CFR. The widely shared common goal enabled the various parties involved to focus on the future rather than on current problems.

Managed debate—we always made sure that there was a common understanding on agreed desired outcomes to a particular discussion or debate before engaging in it. This minimised directionless ‘time-wasting’ discussion and kept groups focussed.

‘Nutcracker approach’—due to the different levels of interest in the CFR, ranging from international to local, it was necessary to simultaneously employ both a top-down and bottom-up approach to strategy development.

Groups not individuals—the area covered by the CFR includes almost five million inhabitants. It was therefore essential that the consultation focus on groups that represented relevant sectors of the community rather than on individuals (see Younge and Fowkes, 2003).

Different levels of intensity of participation—broad-scale consultation has to be matched by intensive focused work. It was useful to have a small, very skilled team to facilitate strategy development. It created focus and pace, and ensured rigour in the outcome. This small team was supported by focus groups and implementing agencies that interacted

with team members prior, and subsequent to, large-scale strategy workshops. These two groups were supplemented by a broader grouping that provided written contributions. Finally, an outer shell of public awareness and participation was created through regular media coverage of the project (see Younge and Fowkes, 2003).

Implementer ownership—the CAPE team realised early on that “this is not our strategy—we are the hosts to a strategy development process”. Wherever possible, we encouraged and created opportunities for the future implementers to participate in and drive the process. A key success in this area was, as already discussed, the early adoption of the strategy by the Western Cape Nature Conservation Board.

Expectations and impatience—it was important to continuously remind people where they were in the overall process and to manage expectations accordingly. In any lengthy process such as the CAPE strategy development, participants tend to get impatient with a perceived lack of progress. This impatience can be disruptive and reduce buy-in from across the stakeholder group.

Thorough preparation—it was important not only for the CAPE team to be well prepared, but also to spend time with stakeholders prior to large-group interactions. This was to ensure that they were up to date with where we were in the process and able to focus on the task at hand. To this end, all participants were regularly briefed through the distribution of detailed documentation summarising progress to date. This explained the purpose and methodology to be used in the next phase as well as providing any relevant background information. Wherever possible, preparatory small group meetings were held prior to large group interactions.

Downplay methodology—although we used the well-tested Theory of Constraints methodology to guide the process, we soon realised that many participants were concerned about being straight-jacketed by what seemed to be a fairly rigid approach. We therefore avoided using jargon specific to this technique and retained sufficient flexibility to cater for the needs of the interest groups while the core structure required to ensure progress was kept unobtrusively in the background.

Iterate and be adaptive—The CAPE team soon realised that in view of the diversity of role-players and the complexity of the problem, a strict adherence to a structured rational approach would not be appropriate and we would need instead to constantly re-plan and re-visit conclusions as we proceeded. Such re-iteration will also be necessary in the implementation phase and the robustness of the rigorously tested strategy map should provide a useful baseline against which to test progress.

Appendix. Elements of the CAPE strategy

Component	Cross-cutting components			Sector-specific components				
	Strengthening institutions	Enhancing co-operative governance	Promoting community involvement	Strengthening on- and off-reserve conservation	Conserving biodiversity and natural resources in catchments	Supporting bioregional planning	Improving the sustainability of resource use	Promoting sustainable nature-based tourism
Goal for component	The collective capacity and will of implementers is sufficient to sustain innovative and adaptive management in the CFR	Role players are aligned and mobilised towards a common vision, policy and purpose for the conservation of the CFR	Well motivated and capable local communities and resource users act to promote and conserve the CFR	By 2020, an effectively managed system of conservation areas, land-uses and ownership that is representative of the Cape Floristic Region and marine biodiversity, is implemented by landowners and the responsible agencies	By the year 2020, the communities that benefit from catchments are fully aware of and understand the importance of integrated catchment management and the role biodiversity plays in providing ecosystem services. As a result, institutions and communities work together to ensure that appropriate management is in place	By December 2002, planning and environmental policy and legislation are used to ensure integrated and informed decision-making, which supports the conservation of biodiversity	By the year 2020, the natural resources of the CFR are sustainably utilised in such a way that maximises benefits to society without compromising the ecological integrity of the CFR	By 2020 a measurable contribution is being made to the sustainability of the natural resource base of the Cape Floristic Region by the tourism industry that utilises those resources. Through offering a broad range of appropriately linked nature-based products, the tourism industry is attracting visitors to the Cape Floristic Region, thereby providing: sustainable benefits to communities; increased incentives for the ongoing conservation of the biodiversity of natural resources; a contribution to the costs of managing the natural resource base of the industry and associated cultural artifacts; a stimulus to the regional economy; and a world-class experience for tourists

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Objectives	<p>There is political will to support biodiversity conservation</p> <p>Government agencies have the authority, capacity and will to take action</p> <p>An agency is identified to lead biodiversity conservation in the CFR</p> <p>A sufficient, independent, well-trained corps of environmental and related professionals supports implementers</p>	<p>Collaboration between implementers in pursuit of complementary goals</p> <p>We have in place an integrated framework of laws, procedures and action plans that enable and regulate the conservation and use of biodiversity in the CFR</p>	<p>Local communities are aware of, interested in and committed to the conservation of the CFR</p> <p>Local communities actively participate in the conservation of the CFR</p> <p>Resource users are motivated and enabled to manage natural resources in an ecologically and socially sustainable manner</p>	<p>National and provincial government need to develop and adopt an appropriate conservation policy framework</p> <p>Mechanisms need to be developed and in some cases strengthened, to secure adequate biodiversity conservation in formally protected areas</p> <p>New mechanisms need to be developed to secure conservation outside formally protected areas (e.g. land swapping, covenants and tradable rights)</p> <p>In all protected area systems, funding sources should be linked to priorities to ensure effective biodiversity conservation</p> <p>Statutory authorities must have the capacity to implement appropriate legislation and incentive mechanisms, in partnership with civil society</p>	<p>Integrated programmes must be established and run by a coordinating body responsible for all aspects of catchment management</p> <p>In order to motivate communities to be actively involved, clear incentives are needed, that would in turn promote sustainable practices</p> <p>Communities need to be motivated to act sustainably, as well as to lobby the politicians to acquire sufficient resources</p>	<p>The principles of bioregional planning must be used to inform Integrated Development Plans (IDPs)</p> <p>Political decision-making processes must be guided according to sound planning and environmental management principles</p> <p>Information systems and legislative frameworks must be in place to support decision-making</p>	<p>Depleted resource stocks must be allowed to recover, and further degradation prevented</p> <p>Communities must be engendered with sense of stewardship and empowerment</p> <p>Benefits of resource use should be maximised, and excessive demand reduced</p>	<p>A strategic planning framework for tourism development must exist, that ensures that benefits flow to the beneficiaries identified in the goal</p> <p>All spheres of government need to develop and maintain appropriate infrastructure in prime tourism areas and address the issue of tourist safety</p> <p>New entrants must be successfully participating in the tourism industry</p> <p>The tourism industry must be making a measurable contribution to the maintenance of biodiversity in the CFR</p>

8. Conclusions

The CAPE strategy process brought together a group of disparate role-players to map out a future path to ensure conservation of a globally important centre of biodiversity. It was recognised that, to be sustainable, this future path must have relevance and deliver benefits for local people who live in the CFR. The CAPE team, therefore, adopted a range of innovative approaches centred on the application of a structured Theory of Constraints approach coupled with a public participation process. The strategy process generated valuable lessons that have been captured in a series of principles. These will need to be applied and evaluated in other conservation planning and strategy development processes to determine their wider applicability.

There are indications that the strategy has already achieved some success in influencing the activities of role-players. However, as the strategy is progressively implemented, it will be important to measure progress towards the strategic goals. Strategy only sets a direction. For it to be applied effectively to local situations, the goals and standards must be measured and adjusted where necessary.

Strategy is ultimately a tool for alignment of action to purpose. The flexibility and focus of the CAPE strategy development process was able to involve and align participants vertically through multiple tiers of government and horizontally across diverse sectors and interests. It also was able to reinforce commitment and concerted action towards the delivery of effective and sustainable conservation. We believe one of the main benefits of the strategy was that it served as a powerful tool for bringing together a wide range of parties, in a way that facilitated agreement on priority actions and encouraged collaboration.

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