



Making The Case For Biodiversity

The Biodiversity Case Study Development Toolkit





“In the **21st century,**
scientific institutions will be judged
not only on what they’ve
discovered, but also on how
effectively they shared it and
how **valuable to**
humanity it proved to be.”

Cribb 2001



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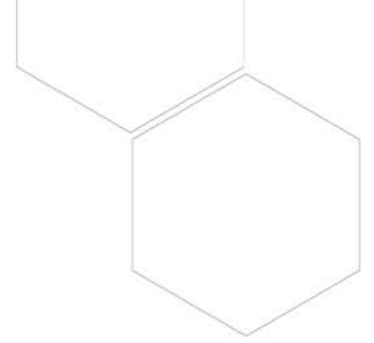
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Introduction

In 2010 the South African National Biodiversity Institute (SANBI) conducted a detailed analysis of internal and external biodiversity communications material. The goal was to determine why these materials were not more effective in garnering support and inspiring action, both from key stakeholders and the broader public.

The research indicates that the biodiversity sector struggles to communicate (a) what biodiversity is and (b) how it contributes to socio-economic growth and development. This points to a need for communication that not only reflects the scientific discoveries being made, but also illustrates its relevance to individuals and the challenges we face as a country – in a way that will leverage emotional and financial investment.

Case studies serve as powerful proof points in biodiversity communication. The purpose of this toolkit, then, is to equip researchers for the collection of compelling information and the formulation of evocative case studies. To that end, an overview of the factors that contribute to effective communication as well as a case study preparation framework and a case study collection worksheet are provided.



Planning for effective communication

All planning for the communication associated with a particular project or campaign is usually consolidated into a communications strategy. As a researcher you probably won't be involved in this part of the planning, but by considering the different factors addressed in a typical communications strategy you will be better equipped to plan your own communication.

A CURRENT SITUATION/BACKGROUND

What has been achieved thus far in terms of communication? How effective has previous communication been in garnering support and/or leveraging action for the initiative in question? With regards to biodiversity, the “Making the Case for Biodiversity” document attached here can give researchers insight into the background of biodiversity communication.

B PROJECT OBJECTIVES

The communications strategy must support the objectives of the greater project, so before drawing up a communications strategy it is important to make a list of the targets and objectives of the project. For example, an aim of a particular project could be to expand the scope of biodiversity research.

C COMMUNICATIONS OBJECTIVES

What do you want to achieve through your communications? How can communications help to achieve the project objectives? An example of a communications objective could be to convince key stakeholders to invest in a new biodiversity management approach.

D TARGET AUDIENCE(S)

Who could best help to achieve the project objectives? Once this has been determined, each target audience must be described in terms of:

1. Current behaviour
2. Level of awareness of the issue at hand
3. Level of knowledge about the issue
4. Preferred methods for receiving information
5. Motivations and barriers to learning and accepting information

E KEY MESSAGE PER TARGET AUDIENCE

The following questions need to be answered about each target audience:

1. What do you want the target audience to know?
2. What do you want the target audience to feel?
3. What do you want the target audience to do?

F COMMUNICATION CHANNELS

Based on the analysis of the target audiences, communication channels need to be chosen through which these audiences can be best reached.

Examples of channels are as follows:

1. TV
2. Radio
3. Online
4. Print (magazines, newspapers, journals, flyers, etc.)
5. PR
6. Niche events (conferences, etc.)

G PROMOTION

How will you get people to see/hear your communications?
For example, if you are communicating through a radio insert, how will you make sure that listeners tune in at the correct time?

H BUDGET

How much money is available for communications? This will determine how you split your communications across the various channels to ensure maximum exposure.

I TIMELINE

The timeline is your planning for when, where and to whom each piece of communication must be disseminated in order to reach communications objectives.

J TONE

This section deals with the values that underscore your communication and that will help you achieve your objectives. These need to be determined upfront to ensure that all communications are consistent and geared to achieve the objectives that have been set.



Gathering information

Once the communications strategy has been developed, it can be used as the guideline for sourcing relevant information. Here are some key considerations:

A WHAT DOES THE TARGET AUDIENCE KNOW ABOUT THE ISSUE?

The success of any particular act of communication depends to a large degree on the extent to which it connects to the audience's frame of reference. For example, if the communication is aimed at a niche scientific community the information used will be more technical and sophisticated than that used in communication to the general public.

B WHAT KIND OF INFORMATION IS NEEDED?

People are unlikely to invest, either emotionally or financially, if the information presented does not seem directly relevant to them. Information is vital to the mobilisation of the target audience and should be selected on the basis of its potential to inspire action.

For example, the purpose of the communication might be to obtain research funding from government for a research project about the impact of greenhouse gases on the environment. Then it would be important to find information that is relevant to the research, but which speaks to the potential benefits of that research to issues on government's agenda, e.g. water security.

C HOW MUCH INFORMATION IS NEEDED?

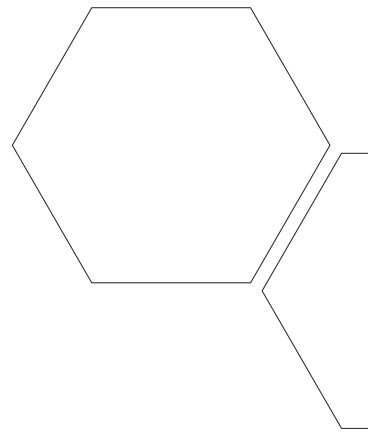
The purpose of the communication will also determine this. For example, if the communication is intended to sway opinions about a contentious issue, you might need more information than when simply reinforcing an accepted fact.

The importance of various parts of the communication (to achieving the purpose of the communication) will determine how much information is needed for each part.



Another consideration is the audience's level of literacy with regards to the subject at hand. Too much information is overwhelming to less sophisticated audiences; more knowledgeable audiences may doubt the credibility of the communication if they feel you are glossing over the details.

Furthermore, the nature of the audience will dictate whether some information is needed to educate them on the topic before appealing to them to take action.



4

Presenting Information

The way in which information is presented is just as important as the information itself, especially when attempting to persuade someone of a particular point of view or of the importance of a specific issue. It is important to present any communication with an adequate amount of supporting elements. Examples of supporting elements are:

A VISUAL AIDS

Visual aids like graphs, charts, tables, infographics and photographs are useful in grabbing the audience's attention, facilitating greater understanding of the subject of communication, and giving credibility to claims.



B STORIES

Stories, in this context, refer to evidence supplied in narrative format and often serve to create additional context for the communication. Case studies are a good example of narrative evidence and can appeal to the audience on a more personal level, facilitating emotional investment in the issue in question. Additionally, case studies can illustrate the subject's direct relevance to the audience.

5

Case Study Preparation Tips

The following tips cover the basic aspects of effective communication at a glance, and can be useful when gathering information for a case study.



Case Study Collection Worksheet

The worksheet below can be used in while drafting a case study to keep track of and structure information.

Research Project:

What research project/demonstration project does this case study come from? When and where was the research conducted and published? Describe the purpose of the larger project briefly.

Other available information:

What broader information is available from the research project that may be relevant to this case study?

Contact Person:

Who has the most information about this case study, should further reference be needed? Include their contact details.

1. Name:

Phone no:

Email:

2. Name:

Phone no: 082 xxx xxxx

Email:

Case Study Title:

What title would best describe what you case study is about?

Audience/stakeholders:

With whom are you trying to communicate in this case study?

Who, in your opinion, would benefit from this research?

Key Message:

What is the overarching message you are trying to convey with your case study?

Audience/stakeholders:

How would they benefit?
You can categorise your audience in relation to broad stakeholder groups, individuals or specific organisations

Key Message:

⋮ What are the two or three supporting messages that you will use in your case study?
⋮
⋮
⋮
⋮
⋮

Key words:

What key words best describe the themes and emotions you want to convey in your case study

Supporting information:

⋮ What types of information do you have to support this case study?
⋮
⋮
⋮
⋮

Location:

Where is this case study from?

Supporting information:

⋮ What is the underlying logic supporting your key message?
⋮ See section X for further information.
⋮
⋮
⋮

Visual Aids:

What visual materials do you have to support this case study?

List or attach any photographs, illustrations, conceptual diagrams or other visual resources you have.

Supporting information:

⋮ What story lines, characters, interesting events are there that can help to create a compelling story when communicating this case study?
⋮
⋮
⋮
⋮
⋮

Case Study Summary:

Provide a high level summary of your case study and the ways in which you feel it could be used to communicate your key message to your targeted audience. Usually case study material can be used for several different communication tools, including news articles, posters, power point presentations, infographics, web clips, etc.

Addendum A

Eldana Case Study & Example Of Case Study Collection Worksheet

Wetland Assessments on sugarcane farms in the Midlands North region:
Maximising push-pull for control of Eldana saccharina

Research Project:	Other available information:
<p>MSc Thesis: “Implementation of the push-pull strategy for Eldana saccharina on sugarcane in KwaZulu-Natal, South Africa.” (JJ Cockburn, North-West University & South African Sugarcane Research Institute, 2011-2013)</p>	<p>• Sedges can be transplanted : dig up • rhizomes, split them, trim growth and • re-plant in wet areas. Transplanted • sedges take 2-3 years to establish. • They are fire and frost tolerant. •</p>
Contact Person:	Case Study Title:
<p>1. Jessica Cockburn Phone no.: 082 xxx xxxx Email: jessica@xxxx.com</p> <p>2. Vaughan Koopman Phone no.: 082 xxx xxxx Email: jessica@xxxx.com</p>	<p>• “Wetlands Assessments on • sugarcane farms in the Midlands • North Region: Maximising push-pull • for control of Eldana saccharina.” . •</p>
Audience/stakeholders:	Key Message:
<p>South African sugarcane farmers</p>	<p>• Rehabilitating and managing wetlands • helps maximise their efficacy for • controlling E.saccharina using a • push-pull strategy. Long-term financial • benefits of wetland rehabilitation • outweigh short-term costs. •</p> <p>• “Wetland Action Plan for Push-Pull” • with generalised recommendations • and information for farmers on how to • increase habitat for E. saccharina and • its natural enemies on their farms. •</p>

Key Words:

Wetland management, habitat management, push-pull, *Eldana saccharina*, decision support system, ecosystem services

Supporting information:

• Maps, Wetland Assessment table, action plan for implementing 'push-pull' strategy

Location:

Midlands North region, Cloudhill, Waterfall and Tweefontein wetlands

Case Study Equation:

• By planting an indigenous repellent grass, *Melinis minutiflora* P. Beauv (Cyperales: Poaceae) between sugarcane fields and alternating it with attractant plants (Bt Maize) which provide an alternate oviposition sites for egg-laying moths.

• The pest *E. saccharina* is controlled and sugarcane crops saved through the use of natural ecosystem services.

Visual Aids:

- a. Cover photographs: wetland with alien vegetation
- b. Figure 1: The push-pull strategy, recommended for control of *Eldana saccharina* in sugarcane
- c. Table 1: Assessments of wetlands on the farms used in the study using WET-Health criteria (Macfarlane et al., 2007) and recommended actions (Koopman pers. comm.)
- d. Appendix A: Map, Cloudhill: Wetland assessment and recommended action for *eldana* push-pull
- e. Appendix A: Map, Waterfall: Wetland assessment and recommended action for *eldana* push-pull

Narrative Aids:

- Taken from Photographic Essay on *Eldana saccharina* :
- a. *Eldana saccharina* is the most damaging pest of sugarcane in South Africa, causing an estimated loss of R150 million in revenue to the industry annually.
 - b. A field visit to small-scale growers on the south coast to implement push-pull revealed that they did not know anything about *eldana* or how to manage it, although they have many innovative control measures for other pests of food crops.
 - c. Participatory research tools, including sketch maps and matrix scoring, allowed farmers to explain what sugarcane means to them.

- f. Appendix A: Map, Tweefontein: Wetland assessment and recommended action for eldana push-pull
- g. Appendix B: Flow diagram, Wetland Action Plan for Push-Pull

This showed that sugarcane makes a large contribution to household food security and education costs. Many small-scale growers are women who are responsible not only for sugarcane farming but also for the well-being of their children on a daily basis.

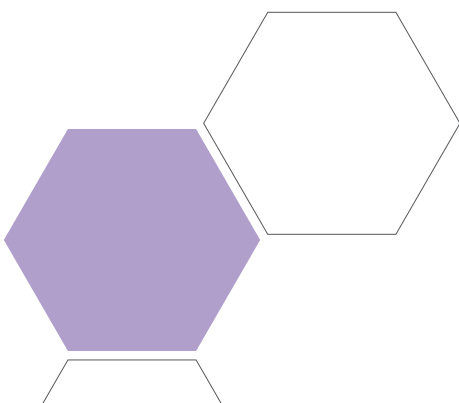
d. Small group discussions with large-scale growers revealed that farmers recognise the benefits of this control strategy and are optimistic about it, but are concerned about the hassles in implementing it.

Case Study Summary:

Pest regulation is recognised as an important ecosystem service in agricultural environments, and wetlands have been shown to provide such pest regulatory services on sugarcane farms. Although sugarcane farmers are encouraged to manage wetlands on their farms, the high cost of wetland rehabilitation and management, including the clearing of invasive alien plants (IAPs), means that many landowners do not practice good wetland management.

A more focused approach to management of wetlands on sugarcane farms, in which the emphasis is placed on the benefits of pest regulation which wetlands can provide, is presented here. Push-pull, a form of habitat management, is promoted for the management of *Eldana saccharina* on sugarcane farms within an integrated pest management (IPM) framework. Wetlands provide habitats for the growth of “pull” plants which provide alternate habitats for *E. saccharina* and its natural enemies, and can thus contribute to reducing pest pressure in the sugarcane crop.

By carrying out wetland health assessments on four model farms, a tool has been developed for farmers to make decisions on how best to manage wetlands on their farms to maximise the pest regulatory ecosystem services which these can provide. This “Wetland Action Plan for Push-Pull” is presented here, along with generalised recommendations and information for farmers on how to increase habitat for *E. saccharina* and its natural enemies on their farms.



Addendum B

Background: Making the Case for Biodiversity

The South African National Biodiversity Institute (SANBI), at the request of the National Department of Environmental Affairs (DEA) sought to leverage the United Nations International Decade of Biodiversity (2010) with an original strategy and compelling messages able to convince senior government decision-makers of the importance of increased investment into biodiversity management and research. SANBI led the development of the Making the Case for Biodiversity Strategy 2013-2015 to support the broader sector in positioning itself as a potent socio-economic driver in South Africa.

This process was driven by a realisation that political decision-makers need to act on the knowledge that rehabilitating and managing ecosystems and biodiversity is deeply beneficial for local communities and society as a whole. Moreover, the benefits are long lasting, as is the downside if remedial action is not taken. SANBI recognises that the sphere of influence of biodiversity information needs to extend beyond the concept of 'biodiversity custodians or stewardship', and enter the mainstream of government and industry by generating understanding of the business and economic opportunities embedded in biodiversity management.

The 'making the case for biodiversity'

process evolved from an initial research and development phase in 2010/2011 into a sector-wide communication campaign that was tested at the seventeenth United Nations Framework Convention on Climate Change (COP 17) held in Durban at the end of 2011.

The COP was used to test the results of the research and development phase with the climate change audience, specifically targeting senior South African decision-makers attending the COP.

Following a successful campaign at COP, the sector reflected on the types of communication materials and processes required to run an on going communications campaign. This resulted in the development of a three-year action framework for the period 2013-2015.

Phase 1: Research and Development (2010)

Phase 2: Testing messages at COP 17 (2011)

Phase 3: 3-year Action Framework (2012)



Phase 1:

Research and Development

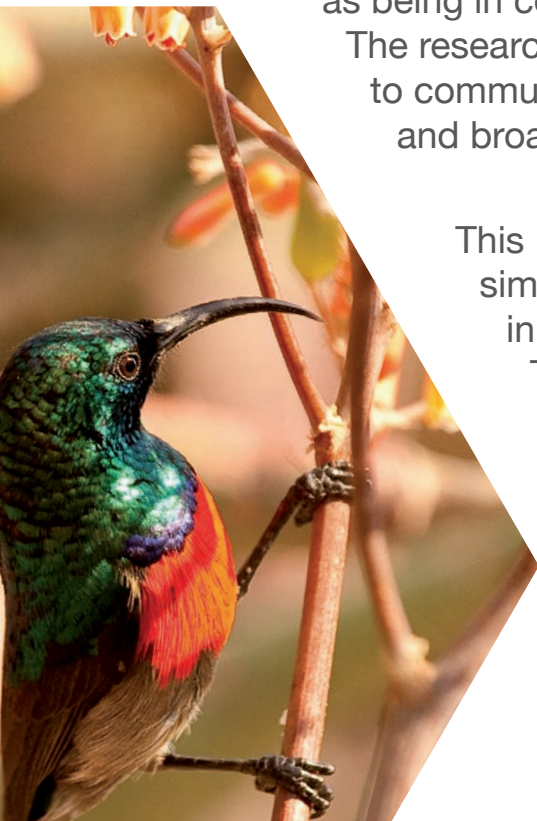
The initial research and development process involved a detailed analysis of internal and external biodiversity communications materials. This research looked at why existing biodiversity communications frameworks were not having the desired effect.

It included a detailed stakeholder analysis process in which key decision-makers from across government departments were interviewed, including representatives from the Presidency, National Treasury, the Department of Trade and Industry (DTI), the Department of Agriculture, Fisheries and Forestry (DAFF), and other entities whose decisions directly affect the state of biodiversity in South Africa.

Three key learning's emerged from this initial research:

- The term 'biodiversity' is not well understood;
 - Communication from the biodiversity sector is sometimes contradictory and often confusing; and
 - The link between economic development and biodiversity is not well understood, and biodiversity is commonly seen as being in competition with socio-economic imperatives.
- The research indicated that the biodiversity sector struggles to communicate the value of biodiversity to non-specialists and broader society.

This is largely because the sector struggles to explain in simple language what biodiversity is and what role it plays in supporting socio-economic growth and development. This struggle is typical of specialist sectors that depend on complex scientific thinking and focused research to understand the systems and processes underpinning the diversity of life in South Africa's natural habitats.





Similarly, the research suggested that government officials and the general public not familiar with the concept of biodiversity need to be taken on a journey to locate people within their surrounding ecosystems to allow them to better understand the value and importance of these ecosystems to socio-economic sustainability; and from there, to reach a greater understanding of the importance of individual species to maintaining healthy, intact ecosystems - thereby supporting socio-economic sustainability.

The remainder of phase 1 was dedicated to testing various biodiversity messages with senior government decision-makers to narrow down a single overarching message to guide communications in the sector. Stakeholder consultations indicated that the notion of biodiversity as a national asset was the most critical message, and an initial framework message for the sector was born:

Biodiversity: Powering the Green Economy

This message is based on the United Nations Environment Programme definition of a green economy as “one that results in improved human well-being and social equity, while significantly reducing environmental risks and ecological scarcities”.

Phase 2: Testing messages at COP 17

Following the initial research and development process, a decision was taken to test some of the messages and language developed in phase 1 with a broader stakeholder audience. COP 17 was selected as a moment in which all South Africans, including senior government decision-makers, would be thinking about environmental issues.

Raising the profile of biodiversity-specific concerns within the broader realm of environmental issues was identified as a good starting point for testing communication materials with non-specialist audiences.



The COP 17 communication campaign was a collaboration between the four primary government partners in biodiversity conservation and management:

The Department of Environmental Affairs (DEA), the Natural Resource Management Programme (NRMP), the South African National Biodiversity Institute (SANBI) and South African National Parks (SANParks).



Drawing on the importance of all four sector partners to the overall management of biodiversity in South Africa, a communications strategy was developed using the messages tested in Phase 1. Three themes were selected, including 1) promoting the importance of biodiversity conservation to society, 2) promoting the need for ongoing habitat restoration and rehabilitation, and 3) promoting the economics of ecosystems and biodiversity.

These three themes were united under the banner of the green economy, with two overarching messages:

- Biodiversity: Powering the Green Economy; and
- Biodiversity: Good for Jobs; Good for Growth.

To support the development of robust communications materials, a case study framework was put together.

This demonstrated at a conceptual level what the relationship is between materials designed to demystify biodiversity and materials designed to specifically link biodiversity to climate change through the overarching themes of the green economy and climate regulation.

Using this framework, 53 case studies were collected from across the sector to demonstrate the importance of species to society through an ecosystem lens (see details in **Annexure 4**).

These case studies and messages were then used to support the development of communications materials for two biodiversity sector sites at the COP:

The Climate Change Response Expo, a venue for showcasing the value of biodiversity to job creation and economic development to the general public; and the Living Beehive, a living art installation and venue for biodiversity specific events and public awareness-raising at the Durban Botanical Gardens. The details of the site-specific installations are captured in Annexure 3.

The biodiversity sector messaging campaign at COP 17 was hugely successful. The campaign reaffirmed the findings of the research and development undertaken in phase 1 and supported the need to develop an ongoing strategy for communicating the value of biodiversity to society through innovative communications materials.



Phase 3: Three-year Action Framework

Drawing on the lessons learnt in phases 1 and 2, phase 3 saw the development of a common vision and overarching action framework for driving biodiversity sector communications.

Phase 3 involved a process of internal research and reflection and three planning workshops (including a combined DEA-SANBI workshop a SANBI internal workshop and a sector-wide workshop at the Biodiversity Planning Forum).





Internal reflection and research led to the development of a vision for communications in the biodiversity sector for 2013-2015:

To support the development of an economically viable biodiversity sector that is based on a positive brand and sustainable economic model.

This vision has been articulated into an action framework to drive the development of necessary information resources and tools, and to build the ‘making the case for biodiversity’ knowledge framework.

An implementation framework has been developed using a network approach, sector-specific lobbying strategies and detailed internal and external programmes of work to support the development of robust communications within the biodiversity sector.

The three-year action framework is based on the understanding that the combination of evidence and stories that detail the value of species to ecosystems and society, together with practical solutions aimed at dealing with problems facing society and the sector, should be translated into a set of communication materials and mainstreaming activities to increase the relevance of biodiversity to key decision-makers and stakeholders.

The goals of the three-year action framework are:

- To have biodiversity considered as central to a sustainable economy;
- To increase funding allocated to the biodiversity sector;
- To increase the prioritisation of biodiversity concerns in development planning processes;
- To decrease the rate of habitat loss in South Africa.





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