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# Conservation Leadership

A Practical Guide

Simon Black



# Conservation Leadership

This book is an important guide for individuals seeking to develop and grow their leadership skills in the wildlife conservation sector, across varied disciplines such as environmental management, conservation biology, and ecotourism.

*Conservation Leadership* addresses what leadership is, why it is important, and how to be an effective leader. It identifies the common pitfalls or mistakes in a leader's thinking or behaviour, and the unexpected consequences or responses which can arise, and then explores more helpful alternative approaches to leadership. The book is divided into three parts:

- Part I: Leadership principles
- Part II: Four areas of profound theory: knowledge, psychology, systems, and variation
- Part III: Skills and competencies for conservation leaders

It focuses on contextual and organisational challenges in conservation, including limited resources, remote locations, fragile species of concern, politics, community conflict, crime, and commercial pressures. The scope is global, using diverse examples such as sea turtle head-starting in South Asia, reforestation in North Africa, bird conservation in North America, human–wildlife interactions in the Himalayas, and post-colonial issues in the Caribbean. Case studies illustrate key learning points from small local teams through to global transnational initiatives. Exercises in each chapter enable the exploration of less-familiar topics, including interpersonal skills, goal setting and performance measurement, plus a unique research-derived conservation leadership self-assessment tool.

This book is an essential reading resource for professionals and senior leaders in the wildlife management and conservation sector, as well as students enrolled on biodiversity conservation, wildlife conservation, and environmental management courses.

**Simon Black** is an Organisational Psychologist and Conservation Biologist who has trained hundreds of professionals worldwide and devised the innovative postgraduate course 'Leadership Skills for Conservation Professionals' at the School of Anthropology and Conservation at the University of Kent, UK. He is a trustee of Wildwood, the leading UK conservation and rewilding charity. He has published over 50 international journal articles, and is co-author of *Species Conservation: Lessons From Islands* (2018).



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### **Conservation Leadership**

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*Simon Black*

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“Poor leadership constrains organisational efforts and limits success, but effective leaders adapt to emerging situations and challenges. Simon Black’s work, presented in this guide, steers the development of leadership skills, use of personal feedback, effective execution of organisational processes, and change management; all essential for equipping organisations for sustained success”.

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“Shortly after leaving university, I became coordinator of an island restoration programme, despite limited project management experience. Happily, I was able to benefit from a week-long training course by Simon Black. Those practical tools and techniques, now covered in his book, significantly strengthened my leadership effectiveness and, even many years into my conservation career, continue to provide benefits”.

**Shanna Challenger**, *Offshore Islands Conservation Program,  
EAG, Antigua & Barbuda*

“Simon Black’s book enables a rethink of conservation leadership for the complex, evolving needs of our sector. Recognising the importance of valuing people within the process of leadership, the book provides guidance on how to demonstrate mutual respect, adapt to emerging situations, devolve responsibility and ultimately deliver more effective conservation”.

**Jamie Copsey**, *Director of Training,  
IUCN SSC Conservation Planning Specialist Group*

“This book arrives in a moment where, more than ever, effective leadership is needed to face challenges of climate change and biodiversity loss. Simon Black brings his experience and insights to offer this practitioners’ guide. From behavioural components which foster motivation, through to purposeful systematic change and concrete action, the book offers a new perspective on conservation leadership”.

**Anita Diederichsen**, *WWF Brazil, Forest Landscape Restoration  
Global Leader and CCNET Lead (Latin America)*

“Many years ago, Simon’s training insights helped me to take on challenges for biodiversity in India and steer the conservation efforts which we continue to pursue. I am pleased to see this learning in book form, complete with updated subjects which will nurture leadership in budding conservationists, as well existing leaders, to face conservation challenges of today”.

**Parag Jyoti Deka**, *Programme Manager Pygmy Hog Conservation (Durrell),  
and Threatened Species Recovery Programme (Aaranyak), India*

“This is a much-needed resource for conservation practitioners, to rethink how leadership can shape conservation outcomes. It offers an essential view of leadership at all levels of conservation work, and the qualities and attributes to which we should aspire, to nurture our pursuit of successful conservation”.

**Samuel Leslie**, *Savannakhet Landscape Director,  
Wildlife Conservation Society, Lao PDR*



“Bold and creative leaders are required to look to the future to make the world a better place for all biodiversity. Simon’s book is showing how we need leadership to do this and is helping to show the way”.

**Carl Jones**, *Chief Scientist, Durrell; Scientific Director, Mauritian Wildlife Foundation, and Indianapolis Prize Winner 2016*

“I recommend this book to fellow conservationists from all cultural backgrounds looking to positively influence their communities, accelerate change and to successfully lead conservation programmes”.

**Wilna Accouche**, *General Manager, Green Islands Foundation, Seychelles*

“Successful and strong leadership is needed to drive forward change, to lead teams and to steer groups to work in partnership. Never has it been so critical for us to have effective leadership in conservation, so it is without doubt, the perfect timing for this book”.

**Paul Whitfield**, *Director General, Wildwood Trust, UK*

# **Conservation Leadership**

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**Simon Black**

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# Forewords from three inspirational conservation leaders

## **A conservation scientist's perspective – Professor Carl Jones Indianapolis Prize Winner 2016**

I am thrilled to contribute this foreword to Simon's inspirational book, *Conservation Leadership, a Practical Guide*. I have known Simon for over fifteen years, and we are both interested in what makes conservation initiatives prosper. I have seen many projects flourish and others fail, since for over four decades I have worked on the conservation of critically endangered species and the rebuilding of ecosystems. I have also had the privilege to visit and advise on endangered species recovery and ecological restoration projects in many parts of the world.

There can never be an easy answer to why some projects thrive and others struggle, since each will have its unique challenges. A key feature is that the most successful have an inspirational leader and a well-organised team of skilled practitioners, who are given some freedom to steer and develop the conservation programme. However, being an inspirational leader is on its own not enough, since all leaders need to be driven by evidence and experience and have good interpersonal skills. Well-developed emotional intelligence is essential when managing teams, working with partners and collaborators, and is also necessary when dealing with detractors and sceptics. Good leaders are also highly intuitive, drawing on deep knowledge and experience, with a clear vision of what they want to achieve. Competent young leaders exist, although it is in middle age, and later, that we see exceptional ones emerge as they develop wisdom derived from making many mistakes and learning from them.

To be effective, leaders need to know how to nurture projects, allow growth and manage change. Future generations of leaders will hopefully be far more effective as we learn about multi-generational project development, the stages they go through, and the changing knowledge and skills required at different times during their growth. I am fortunate that I work for the Durrell Wildlife Conservation Trust that has been running conservation projects for half a century and has several in-country initiatives that date back decades. Durrell is a species-focused organisation, working on some of the most imperilled animals like the Pygmy Hog, *Pocula salvania*, Mountain Chicken Frog *Leptodactylus fallax*, and Pink Pigeons *Nesoenas mayeri*. In all of our projects we have seen that as we work for the long term and nurture population recovery, the focus broadens to include other species, habitat protection, and the restoration of ecosystems. The old polemic about whether we invest in species or habitats is largely redundant since one can drive the other. Understanding this development enables leaders to become more effective at facilitating change to drive bigger conservation agendas.

Leaders need to be able to react to immediate challenges which are always present but must not become a preoccupation. There is also a need to think long term, be proactive, and consider scenarios of what may occur. In both the organisations I work for, The Durrell Wildlife



Conservation Trust and the Mauritian Wildlife Foundation, we ask the question, “Where do we want our projects to be in five, ten, fifty and a hundred years?” How can we better design projects to ensure long-term sustainability and what information do we collect that will inform practitioners and scientists in future generations?

When we, in Durrell and Mauritius, started discussing the need for long-term vision, most colleagues were sceptical and responded, “How can we possibly think a century ahead?” Is this so unrealistic? It is only two and half times the length of my career as a conservation biologist, three generations of a giant tortoise, and it is how long it is going to take to restore some of the ecosystems we work in.

The challenges for future conservation leaders are going to be able to think long term and also to challenge the current limited approaches to conservation. Western conservation has been influenced by socio-political (and somewhat incomplete) interpretations of Judeo-Christian beliefs concerning purity and natural order. This has driven protectionist approaches of conservation such as the setting up of nature reserves and national parks. In the twentieth century, conservation was characterised by looking backwards to restore systems to how they once were and with the over-riding belief that if given space and time nature would heal itself and recover. This is the ideal although in a rapidly changing world challenged by invasive species, massive habitat destruction, and species loss; it is not always the most effective.

Conservationists like me, who are interested in bold interventionist approaches to restoring species and rebuilding functional ecosystems, have often been accused of disrupting the natural order, of ‘playing God’. However, in the early twenty-first century, these approaches to conservation are now more accepted as we realise the severity of conservation challenges, with existential threats of massive anthropogenic and climate change. We can no longer always hope to restore species and systems to how they once were. We do however need to understand how habitats have changed so we can plan to rebuild functional systems that will benefit a maximum of biodiversity, even if quite different from what once existed.

As the very nature of our approaches and the scale of conservation changes, leaders are going to have to learn how to balance different and often clashing ideologies. The tensions between restoring the past and building the future play out in the modern approach to restoring large areas of land by ‘re-wilding’. While re-wilding activists contend that re-wilding is enabling natural processes to shape ecosystems by letting nature take care of itself, this is the ideal that is not always possible due to extinctions or extirpations. Hence, in Europe, the extinct Tarpan *Equus ferus* and Auroch *Bos primigenius* have to be replaced by using domestic proxies such as Konik Ponies and Heck or Taurus Cattle, and in areas that lack large carnivores to control their numbers, these herbivores need to be artificially managed. Similarly, with the absence of large avian and mammalian predators and scavengers from many European countries, such as the Grey Wolf *Canis lupus*, Eurasian Lynx *Lynx lynx*, Brown Bear *Ursus arctos*, Golden Eagle *Aquila chrysaetos*, Northern Goshawk *Accipiter gentilis*, and Eagle Owl *Bubo bubo*, we see the proliferation of mesopredators and mesoscavengers. We have the emerging challenges of reintroducing these missing predators or wide-scale control or exclusion of mesopredators and mesoscavengers such Red Fox *Vulpes vulpes*, European Badger *Meles meles*, and various corvids. There can be no easy answer with the need to balance issues of ethics, ecology, and the possibility of human–wildlife conflict. The future is going to be difficult to negotiate for any leader.

There are major environmental challenges ahead, and we can be optimistic since never before have we had so much knowledge and ability to address them. Bold and creative leaders are required to look to the future to make the world a better place for all biodiversity. Simon’s book is showing how we need leadership to do this and is helping to show the way.

Carl Jones

**International perspectives – Wilna Accouche**  
**General Manager,**  
**Green Islands Foundation, Seychelles**

Leadership is the most important attribute of a conservation biologist. The world of conservation is increasingly embracing strong leadership as a gateway to success and achievement of conservation goals. With the ever-increasing environmental challenges facing small developing states and their biodiversity, it has become progressively important for conservation organisations to equip their staff with skills needed to tackle these challenges. This is particularly relevant to small island states like Seychelles where I originate, where we have long recognised that protecting our islands' high biodiversity also requires supporting the personal development of passionate, committed individuals and true leaders.

My conservation career started at the age of 19, spanning work saving endangered species on remote islands to management of protected areas. My long years of experience steered me to lead Green Islands Foundation, a national NGO that promotes sustainable development in local industries. Green Islands Foundation acknowledges that engaging with all partners, from fishermen to businesses, from academics to government, in the right context ensures maximum benefit from their involvement. Good leadership skills are needed to achieve such collaborations between differing partners whilst also embracing the aspirations of local communities in which we operate and who are themselves affected by our decisions.

*Conservation leadership: a practical guide* presents the tools needed by conservation practitioners, like myself, to make a transformative impact in their communities. The book highlights that while investing in the science of the biodiversity around us is great, the ability to lead conservation teams, to harness interpersonal relationships and decision-making know-how are even more crucial.

I recommend this book to fellow conservationists from all cultural backgrounds looking to positively influence their communities, accelerate change, and successfully lead conservation programmes. The book draws inspiration from years of work to understand what works in conservation as well as drawing experience from other sectors; just as leaders in conservation hone leadership skills from hands-on engagement, learning from others' experiences, and applying knowledge accumulated across the years.

Furthermore, leadership – the ability to positively influence others through inspiration which is motivated by passion and generated by a vision and a sense of purpose – is vital in the conservation world. Young actors inspiring to be good conservationists need to be properly guided through their personal and professional development to make long-lasting positive impacts. Hence, true leadership skills have strong relevance to conservation. This is so much more important for small islands of high biodiversity but strong development pressures like the Seychelles where we need to invest in strong conservation leaders who can avoid pitfalls and build the mentality required to influence changes and make positive impacts.

Purpose, vision, and values are attributes of true leadership for a conservationist to develop at the onset of their career. Hence, I believe that this book will make a world of difference for young conservationists as well as older ones who may not have benefitted from such a wealth of knowledge and skills. Developing strong interpersonal skills will set new perspectives leading to conservation change in the natural and social systems for the benefit of all.

Wilna Accouche

**An organisational perspective – Paul Whitfield**  
**Director General,**  
**Wildwood Trust, UK**

Nature is in crisis, and our planet is facing a devastating loss of biodiversity and huge challenges arising from climate change. We in the conservation world are at that pivotal point in time where we still have time to turn things around but only if we act swiftly and effectively. We have the means to reverse the loss of species, but to do so, we need better quality and more joined-up conservation projects. These need to be on a landscape scale to have any chance of reversing the terrifying declines that we are currently experiencing. Successful and strong leadership is needed to drive forward this change, to lead the teams and to steer groups to work in partnership. Never has it been so critical for us to have effective leadership in conservation, so it is without doubt, the perfect timing for this book, *Conservation leadership: a practical guide* to be published.

I have known Dr Simon Black since 2018 when he became a trustee of the Wildwood Trust. I had been running the Trust as Director General for about 12 months, having steered it through a very difficult period of change and disruption. Simon's expertise in management, organisational development, and conservation were invaluable to me then, as they continue to be now, helping me to build Wildwood into the credible organisation that it has become, leading the field in native species conservation in the UK. Over the past two years we have introduced and established European Bison into English woodland for the first time and have reintroduced the Red Billed Cuckoo to the White Cliffs of Dover, where they have been missing since the 1800s.

Four years ago, with Simon's help, Wildwood rewrote and refocused our mission, vision, and strategy for the next five years. We created a simple to understand mission that focused on the protection, conservation, and rewilding of British wildlife and a vision that all staff and partners could understand and work collectively to achieve. Seeing how your daily work fits into the bigger collective aim is a powerful image to carry, and it is the leader's job to explain and say this at every opportunity, creating a shared sense of ownership and responsibility that encourages staff to take ownership and pride in their work.

All of the major conservation projects that we are currently working on are in partnership with other organisations. Getting people in any one organisation to work together seamlessly is hard enough – but getting people from other teams and other organisations, each with their own quirky cultures and values, is a whole extra layer of challenge. When that work is expanded internationally, you need to navigate the different politics, law, and cultural norms as well.

What Simon's book manages to do is to take a vast amount of knowledge and research in leadership and condense and apply it to the practical realities of conservation work in a way that I have never seen achieved before. People who choose a career in conservation tend to be passionate, driven, and very strongly motivated. Disagreements can easily feel very personal as an individual's whole life, culture, and self-identity can be wrapped up in saving a species or preserving a habitat. It is not seen as being 'just a job' for most of us.

Modern leaders in conservation need to be both skilled and trained, I'd like to think that most people would be in agreement if I say that most great leaders are not natural-born leaders, but that the best leaders are effectively those who train and work to be the best.

The most effective leaders are those who are able to work with others in a truly collaborative way. People who know what they are doing, who can lead with authoritative knowledge, but who are also humble enough to listen to others' points of view and concerns. Leaders who are willing and able to share power, responsibility, and credit. Leaders who can build trust not only in their own teams but also within and across other organisations and their leaders. These are the conservation leaders that the world needs.

I have seen too many important conservation projects fail because of a lack of effective or collaborative leadership. Leaders who put their own egos and personal desires above the purpose of their conservation work. By focusing on their own short-term goals or those of their organisation, they neglect the bigger picture, time is wasted, communities are alienated, and the species they set out to help itself declines and eventually becomes extinct.

This book puts forward a Six-Factor Model for Conservation Leadership, which, in my opinion, constitutes the clearest set of guiding principles for leaders in this field. The model remains just as relevant and valuable to conservationists at the beginning of their careers as it is to established leaders like myself. There are opportunities for everyone working in conservation to lead and influence in an effective and positive way even if they do not have formal authority.

Conservation leadership is challenging and complex, having a clear model of how we can all lead better is a powerful tool. Understanding and applying clear principles of leadership and integrity with knowledge and humility are empowering for individuals and will, I believe, help the Earth fight back against the current climate and nature crisis that poor leadership has created.

Paul Whitfield

# Preface

The discipline of conservation biology has been established for over half a century and the best conservation interventions, which have resulted in species conserved from extinction and the recovery of landscapes, have in many cases already been running for decades. The same landmark programmes are ones which continue to learn, improve methods, and adapt to new challenges and emerging threats. Locations as diverse as Mauritius, New Zealand, India, Kenya, Brazil, and the United States have seen excellent programmes engaged by excellent professionals delivering positive results. Conversely, other efforts, even including initiatives found in those very same countries, continue to struggle. The ‘people factor’ seems to be relevant, at least at face value, which makes one wonder why it is only now that we are seeing a book on how to lead conservation.

Part of the reason for a new focus on leadership in the wildlife conservation sector is that we are seeing a ‘changing of the guard’. The original inspired and motivated individuals who instigated critical initiatives in the 1970s, 1980s, and 1990s are now retired or have sadly left us. When I speak to professionals from around the globe, many names repeatedly crop up: Gerald Durrell, Dian Fossey, Don Merton, and even David Attenborough for his engagement with the wider public. Inspiring individuals like Jane Goodall, George Schaller, and Carl Jones are still busy spreading the word and encouraging professionals to preserve species and ecosystems. I have personally enjoyed learning from less well-known voices such as Goutham Narayan, Parag Jyoti Deka, and younger dedicated professionals (already carrying decades of experience) such as Hadi Al Hikmani, Amina Fellous-Djardini, Anita Diederichsen, Wilna Accouche, Hugh Doulton, and Hanna Mounce. All not only are influential in their own countries but also actively reach out to international colleagues and organisations.

These individuals have learned how to make their conservation efforts achieve exponential levels of improvement, stepping up from incremental learning of previous decades. It has been enlightening for me to see how the thinking of these thoughtful yet practical people, coming from very diverse disciplines, appears to converge into what is considered a modern understanding of this intangible subject ‘Leadership’. What actually works when engaging in conservation work with people in different settings and cultures can indeed be described in terms of good leadership. These are tangible areas of learning for any conservation professional which this book seeks to offer.

I have really appreciated the interest and support from Carl Jones, and I am delighted he has been able to introduce this book. Carl is a leader in the practical sense of the word. He does not fit the traditional model of a ‘corporate manager’, yet his teams have achieved phenomenal success in species and ecosystem recovery. He is an excellent scientist with a wealth of acquired knowledge and a goldmine of personal experience. His willingness to share with thousands of



professionals worldwide, at a personal, technical, and practical level, is a benchmark for conservation leadership. Like anyone, Carl works within his limits and personal constraints but always seeks to develop himself and his ability to relate to others. He draws in others to bring their own expertise, skills, and energy where they are needed. He understands that the value of a team is in its purposefulness and coherence. A leader is only as good as the team that delivers the work.

As important as particular individuals have been to conservation, the current challenge has, in many ways, moved on. There is better awareness of environmental priorities, and to varying degrees this is starting to be properly recognised by many governments. Concepts of protected areas, natural resource management, trade-offs in development and infrastructure, climate change mitigation, pollution and landscape solutions are more acutely acknowledged by society. This awareness may not always guarantee support, and, of course, changing governments can put opportunities and expectations into disarray. In turn, powerful short-term corporate interest also makes priorities for commercial developments outpace the progress and attention paid to environmental issues and the global benefits of addressing conservation concerns. Many regions continue to suffer the ravages of socio-economic systems and human development which oppose the needs of species, ecosystems, and landscapes. That is the world we work in.

The conservation community faces unprecedented pressure. Global threats, including continually emerging climate change effects, are rising like a tidal wave of negative pressure. At the same time, the resources available to draw upon, people, finance, and equipment, are limited. Rather than simply choosing to be idealistic ('if only we could change X') or optimistic ('some very good work is possible, as shown by Y'), a significant question for conservation workers should be "is there a better way?". With the existing foundation of conservation science, we need to seek a better way of doing conservation which cuts out wasteful thinking, suboptimal effort or continual confounding of gains through unnecessary conflict with other interest groups.

A 'better way' is possible only by a re-imagining conservation work, and those particular thought processes occur only in (i) the minds of leaders and (ii) are verbalised in the discussions those leaders have with their teams, with stakeholders and partners, and with other leaders, and (iii) in the way that work is designed and conducted in conservation organisations. These three aspects demand new levels of perception, skill, and insight for leaders of conservation. Thankfully, these skills in leadership are all learnable and all are practical.

This book is designed to make personal skills and aptitudes accessible to scientists and field practitioners who might otherwise not easily access personal development, yet who may encounter responsibilities where such skills become important. If the sector waits for people with 'innate qualities' to take on leadership roles, then every conservation organisation will stagnate relative to the increasing challenges faced by biodiversity; we will become less able to manage operational teams, anti-poaching patrols, landscape management teams, or direct the work of large government departments or lead effective NGOs. This book is offered to those who are ready and willing to learn; to encounter a new dimension in their professional life, and their ability to influence the world around them.

There is, however, no quick fix for learning to be a leader. I recognise that notions of 'management' and how to do it are open to scepticism, and rightly so, because management is highly contextual in its demands and application. This book itself draws on a healthy level of scepticism, as I have personally experienced and observed 'management' and 'leadership' at its best and worst over a 35-year career. My messages on leadership aim to avoid the fads and trends of management. Rather, this book draws on established theory and effective practice in operational systems and ecological systems, as well as psychology and social science. My aim is to make the text accessible and relevant to practitioners at whatever level they sit in their organisation.

I avoid ‘management-speak’ wherever possible. Rather than ‘pop-psychology’, the topics and techniques draw on peer-reviewed research in conservation science, psychology, neuroscience, and social science and are related to relevant application of methods (or ways of thinking and analysing) in practice. The CASE BOX, which is included at the end of each chapter, shows the ideas in action. Overall, the book is a resource for practitioners, from the most junior to the most senior, based on my experience of working with and supporting hundreds of professionals from dozens of countries worldwide.

This book provides the first collection of material to develop leaders in wildlife conservation and associated disciplines such as environmental management, sustainability, community-based natural resource management, conservation education, and wildlife tourism. There is also an Exercise section at the end of each chapter, which prompts the reader to reflect on one’s own leadership approach.

The chapters set out important areas of growth, including removal of unhelpful thinking and behaviour (which disrupt success), enabling the reader to instigate new ways of considering staff, colleagues, plans, goals, work design, and measures of success. Learning the correct basics in human interactions as a foundation enables establishment of further competence and maturity more effectively and more quickly. You cannot become a ‘black-belt’ in leadership without experiencing and understanding initial core concepts and how they impact people and work. Where possible, the book walks you through this progressive developmental process.

I hope that the text is a useful personal reference source for professionals at any stage in their career. As a practical guide it is suitable for supplementing professional courses for people already employed in conservation work. The text aims to enable individual study, whether as part of informal learning or a formal curriculum. It may be a text for any course on conservation leadership, conservation management, or conservation project management or for students on any course in wildlife management, conservation biology, or similar disciplines at graduate or postgraduate level, or to support distance learning or web-based instruction.

The main themes concern: what leadership is and why it is important; how leaders can be developed and enable themselves to be more effective; a focus on the important aspects of conservation leadership; multicultural challenges and culturally relevant leadership; issues of gender, class, and difference; pitfalls of leadership and how to avoid them; and developing a general leadership skills toolbox.

No book has previously laid out the scope of leadership competences and skills development specific to conservation. This book does this by providing self-development tools, mental models, and examples of ‘what good looks like’ to enable you as the reader to challenge your own thinking, internalise those ideas, and take specific action. Importantly, the book enables you to get a new perspective on your own organisation (whether complex or straightforward, large or small, local or international) and understand where, as a leader (whether junior or senior), you can influence conservation success.

A number of conservation professionals have inspired me to explore how to best support people working in the sector: Carl Jones, Jamie Copsey, Richard Griffiths, Paul Whitfield, Thirza Loffeld, Adrian Harland, Regine Weckauf, Hugh Doulton, Wilna Accouche, and Jim Groombridge, to name a few. However, it is the current crop of professionals (who I have time to mention in the acknowledgements) that really inspire me. These are talented people who did not step into the field to find job security, educational opportunity, or professional kudos. Rather, they are impassioned people who want to make a difference in the world. Many are specifically mentioned or have references to their work featured in this book. I hope that their lessons are as helpful for the reader as they have been for me.

The most important thing to learn as a leader is whether we decide to continue to simply pursue our best efforts to support conservation and recovery or whether we seek new insight, new approaches and truly higher levels of achievement. Paradoxically, ‘best efforts’ will only get us so far and might even confound other people’s ‘best efforts’ so that no one wins. To paraphrase Ed Deming, I encourage you to first seek new learning, greater knowledge of what is happening and what must be changed, and, rather than relying on people’s best efforts, find the better way of managing conservation.

Simon Black

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## **Part I**

# **Leadership principles**



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# 1 An introduction to leadership in conservation

## **Personal Perspective – Introduction**

Leadership is, on the one hand, a complex, multifaceted subject and, on the other hand, a simple concept. A leader's success could conceivably be measured by the willingness of fellow human beings to follow, but this is not the whole picture. If followers take a path to their own destruction, it cannot be good leadership. If people are purposed (by which I mean 'focused') in the wrong way, it creates a problem. In wildlife conservation, if the outcome is successful for participants but a disaster for wildlife, the approach has failed. If the outcome is successful for wildlife but only in the short term, and support from local people has been destroyed, environmental degradation quickly resumes; again a failure. Essentially, conservation leadership can be measured by the success of conservation itself (which is, after all, the purpose of our efforts). Conservation is challenging work, with many ups and downs which stretch people's resilience if we seek to achieve the best for species or ecosystems of concern. If leaders are not prepared to personally carry these expectations, they should work in another sector. The vocation is for conservation, not personal kudos.

I am always encouraged to meet and work with committed people in conservation, whether in global programmes in one of the larger institutions or at a local scale with a small team. I have had the privilege of seeing many individuals who never set out to become senior managers, yet who have found a path where they have developed themselves through insight, learning, and opportunity into highly effective leaders and who also enable others to become leaders. It takes effort, honesty, and openness; all aspects which can be learned, as shown in this book. My short 'personal perspective' at the head of each chapter draws on my experience; my personal reflections. Full citations to established knowledge are included throughout the rest of each chapter. You will not learn to lead just by reading a book, but it does provide a steer, and will feed your growth as a leader. Explore how knowledge of leadership has changed over time, and inform yourself on why various skills need to be nurtured as part of your personal development, and whether other behaviour needs to be discarded.

## **Aims of this book**

Leadership involves a complex mix of elements, including principles, perspectives, practices, and behaviours of individual people which are expressed in an intricate system of circumstances,

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people, and resources (Grint 2010). As a leader, what you express in any one of those elements of leadership will have many impacts on other factors in the organisation in which you are working, giving rise to a response in people and the activities they undertake (Kouzes & Posner 2007; Seddon 2003).

There has been a huge proliferation of books, training, advice, techniques, tools, and theories on the topic of leadership. Many of these sources of information are commercially lucrative products which have well-protected trademarks and copyrights. Nevertheless, despite this phenomenal exploration of concepts of leadership, the underlying ‘truth’ about what works (or does not work) for leaders remains elusive. It is not surprising that one of the famous pioneers of leadership studies, the American practitioner and writer Warren Bennis admits in his seminal work *On Becoming a Leader* (Bennis 2009) that when considering the vast body of literature on leadership that “never has so much been written about so little”.

At a basic level in everyday life, it can sometimes seem hard to find examples of good leaders, whether organisational, political, professional, or social (if the reader reflects on this for themselves this can be a useful exercise: who are good leaders, in your opinion?). In this context, ahead of reading this book, it would be understandable for anyone battling with the challenges of conservation work to consider the following:

- First, why another book when there is already plenty written (of variable quality or usefulness)?
- Second, can lessons from different sectors such as industry and commerce, the military or education really be relevant in the world of conservation, with its peculiar challenges?
- Third, are principles of leadership that have been developed primarily in the United States and Europe also be relevant in other countries with different socio-economic and cultural contexts?

These are fair observations about leadership, but also underline the importance of having this particular book bring together an array of material, to help conservation leaders in their personal and professional development. The questions are legitimate; a response to these concerns is threefold.

First, thanks to the experience of three decades of practice and research, I have had the privilege of unearthing and synthesising knowledge and then seeing it applied in work. This has enabled identification of the ‘golden threads’ of leadership thinking; things that endure and which complement each other. What I have found from this exploration and the privilege of working alongside world-class professionals are key concepts that are practical and make a difference. Additionally, they are not the fads and trends often associated with management but instead are based on knowledge and theory that stretch back, not just a few decades, but a body of work covering 100 years of study, investigation, and practice (35 years of which I have observed in detail to date) by generations of practitioners, academics, and philosophers. These keystones of knowledge include, at their base, the Theory of Knowledge of C.L. Lewis (1932), management statistics methodologies of Walter Shewhart (1931), psychological studies in the 1930s by Lev Vygotsky (1978), and systems theory of Ludwig von Bertalanffy (1969). Those works have been built upon by the likes of psychologist Michael Cole (1974), management gurus of the 1950s’ Japanese industrial revival like Ed Deming (1982, 1994) and Joseph Juran (1989), both of whom re-emerged in the United States in the 1980s, and later practitioners like Steven Covey (1989), Peter Senge (1990), and Tom Peters (1992).

The late twentieth century saw further insights into organisational development, namely an understanding of how organisations work and can be improved. New organisational theory was popularised by Senge (1990) and Edgar Schein (1996), personal effectiveness and leadership from Covey (1989), the psychology of high performance from Csikszentmihalyi (1990) and

insights into human behaviour from practitioners such as Manuel Smith (1975). In recent years, many of these behavioural aspects have been supported by new understanding in neuroscience (Jacobs 2009; Peters 2012) and aspects of improving organisations through practical application of systems theory (see Seddon 2003). Only one woman was identified among 43 management ‘gurus’ of the 20th century by Kennedy (1994), and little has changed since, but recent years have seen the late but welcome emergence of female perspectives in organisation theory; Donella Meadows (2008), Rosalind Armson (2011), and management thinkers such as Rosabeth Moss Kanter (Kanter et al. 1992) and Susan Scott (2004) have contributed to this otherwise Western, male-dominated sphere of activity.

Several of the twentieth century’s true pioneers in leadership thinking and organisation theory were students in the classes of well-renowned fathers of key disciplines. For example, Deming was a student of Ronald Fisher (the statistician well known to population biologists) and Csikszentmihalyi attended lectures by Carl Jung (psychology). As a note of interest to conservation leaders, both Fisher and Bertalanffy had huge influence on the study of biology (Black & Copesey 2014), so we should not be surprised to find ideas of organisational theory which make sense to conservation leaders, and which resonate with conservation science, or are applicable in wildlife conservation.

The conservation sector operates on a geographically and culturally diverse basis with some degree of gender balance in the workforce (in terms of participants at least), if not quite so balanced through the levels of seniority or structural opportunity (Jones & Solomon 2019; Jones et al. 2020). Conservation professionals may therefore seek a more diverse basis for thinking about leadership. Diverse insights enable broader exploration and better understanding of cross-cultural views, including the contributions from women and minorities (Straka et al. 2018; Jones & Solomon 2019; Alvarez & Lovera 2016). This allows greater insights into stakeholder engagement, problem-solving, consideration of complexity, and ethics (Black 2021; Nery Silva et al. 2022). As a sector wildlife conservation is at a stage where professionals can draw on insights across all genders, nationalities, and disciplines to open up our understanding of how leadership works (or does not work) in the context of conservation organisations, or broad programmes of work, or within specific projects. The hope of most proponents of conservation leadership is that many people will be able to build a new understanding of leadership, collaborate with others, and share in the development of professionals across the wildlife sector (Bruyere 2015; Black 2021; Englefield et al. 2019).

This book draws upon the endeavour of many researchers and practitioners, their insight and experience, in addition to my own research, observations, and experiences. I have delved into the extensive work of previously established areas of knowledge in science, management, and psychology. Moreover, I present practices which have not only been shown to be sound in terms of their theoretical basis but also been tried and tested in many contexts and still hold true.

At first glance, biologists (since many conservation professionals have this background) may not necessarily be considered natural ‘people-oriented’ professionals. That said, if we consider the basis of modern theory of leadership and management, it seems, paradoxically, that professionals in conservation sciences *may actually be well placed* to explore, encounter, understand, and apply the leadership principles presented in this book, since biologists are familiar with areas of thought such as ‘systems’, ‘knowledge’, ‘assumption’, ‘learning’, and ‘complexity’.

It is vital that whatever your background, experience, or role, you need to first understand that *leadership is something that you can learn*. Warren Bennis (2004) goes further:

The most dangerous leadership myth is that leaders are born – that there is a genetic factor to leadership. That’s nonsense; in fact, the opposite is true. Leaders are made rather than born.

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This book aims to explore what leadership means in many varied contexts encountered in the wildlife conservation sector. As a reader, keep an open and enquiring mind to enable you to perceive and value a whole new perspective on what you can do to lead successful conservation efforts. Your perspective or ‘point of view’ on leadership is important, since it sets the framework for analysis and decisions (Deming 1994; Dotlich et al. 2006); it drives assumptions and questions when designing work, engaging people, addressing challenges, and developing innovations in any initiatives which you lead. Your leadership perspective will influence your success in conservation.

### Challenges faced by leaders in the conservation sector

When considering work in the conservation sector, there is a very broad scope of activity and interest including recoveries of endangered species, landscape protection, and ecosystem reconstruction all in the face of significant negative human pressures (e.g. pollution, land use changes, urbanisation, population growth, hunting, wildlife trade, climate effects). When working in these contexts, whether in rich or poor countries, conservation organisations typically suffer constraints including inadequate finances, a transient workforce and sometimes remote locations. Furthermore, work can be physically demanding, it may meet local resistance, and sometimes commercial or criminal opposition, or be slowed by bureaucracy and political interference (Clark et al. 1994; Kleiman et al. 2000; Black & Copsey 2014; Black 2019). While the conservation sector is not unique in experiencing these demands, the challenges that are faced by the conservation leader, and the skillset required, set a particular context for how those leaders can influence conservation outcomes (Figure 1.1).



*Figure 1.1* Developing suitable facilities and managing their use is one part of leadership role. The captive breeding facility for the Cayman Islands Blue Iguana has been developed, modified, and improved over time to best serve captive breeding, release, rescue, and recovery as well as a vehicle for public outreach and education.

*Source:* Photo credit: Shannon Farrington

Cultural sensitivity is also important, since many conservation teams either are international in make-up or work in areas where a mix of cultures occurs. Awareness of cultural factors, and the relevance of particular behavioural norms valued by the people we work directly with (our team members) or alongside (such as community partners), is vitally important. Where people of different cultural backgrounds work together, the sensitivity of the leader's approach to cultural norms may either facilitate or hinder conservation outcomes (Straka et al. 2018).

Within the subculture of the conservation workforce itself we can encounter different ethical perspectives, different disciplinary backgrounds, and different vocational calling, all of which need to be successfully navigated by the leader to ensure team harmony and effectiveness. Some people support animal welfare, for others animal rights are secondary. Some people consider preserving pristine wilderness a priority, others consider management for sustainability in human-dominated landscapes as being more realistic. We have different perspectives.

Conservation initiatives (including projects, programmes, or organisations) typically require collective action to achieve their goals (Lauber et al. 2011). That said, collaborating partners might have conflicting interests (e.g. farmers vs. wildlife conservationists); so collaboration can be difficult to secure (Englefield et al. 2019). Disparity in the values held by many stakeholders in the conservation context creates management challenges that may compromise overall effectiveness (Black et al. 2011). Navigating this complexity inside and outside the organisation requires skills and direction in the form of strong leadership (Manolis et al. 2009; Black et al. 2011; CMP 2013).

As a professional in conservation, it is possible to become overwhelmed by the complexities of the challenges that we encounter on behalf of species and ecosystems of concern. The acronym VUCA is often used to scope the issues of concern in our working environment of geopolitics, economics, and environmental flux: volatility, uncertainty, complexity, ambiguity. Interestingly, these terms are drawn from a book by the aforementioned leadership guru, Warren Bennis, written with his colleague Burt Nanus (1985), *Leaders: the strategies for taking charge*.

Uncertainty, complexity, and change are such familiar terms in conservation that they tend to express the norm for many people's working circumstances. That being the case, it is our job as professionals to prepare our minds, so that we can, as individuals, encounter those difficulties with a perspective (or 'mindset' to use management-speak) that allows us to encounter each challenge and seek to influence and address the issues. In doing that, we take on the role of leadership.

More leaders have been made by accident, circumstance, sheer grit, or will than have been made by all the leadership courses put together.

— Warren Bennis

Within our own sector, a number of studies in recent decades have started to open up discussions on the challenge and opportunities presented to us for improving the way we lead conservation efforts. However, ahead of this learning, we need to understand some basics concerning how contemporary understanding (or assumptions) about leadership has arisen.

## **A brief history of leadership**

It would be easy to write a book covering the history of leadership alone, but that is not the purpose of this guide. Nevertheless, it is useful to explore how leadership knowledge has developed to understand which approaches to accept or reject in our own personal development. Various philosophies, ideologies, and paradigms of what makes a leader, or what leaders do,

have risen and fallen from century to century, decade to decade. Leadership is, however, widely accepted as being essential to the effective performance of individuals and organisations across a range of sectors (Schriesheim & Neider 1996; Nettles & Herrington 2007; Curtis et al. 2011), and this is increasingly recognised within the conservation sector (Manolis et al. 2009; Dietz et al. 2004). Substantial research investments have been made across a diverse range of sectors, including healthcare, commerce, politics, and education, to identify key leadership competencies and qualities (Bass & Avolio 1993; Bennis 1999; Kouzes & Posner 2007). Professionals in conservation have the advantage of now gaining from learning that has already been gathered in other sectors and, most importantly, avoid the mistakes that have been made by leaders, and leadership training, in the past.

In fact, what was considered best practice or cutting-edge theory, even in the early twenty-first century, is now seen as questionable at best and counterproductive in many instances (see commentaries by Senge 1990; Joiner et al. 1994; Seddon 2003; Jacobs 2009). Conservation professionals need to heed these lessons, since we see many of the same range of leadership practices, good and bad, in conservation organisations. Several previous summaries by conservation practitioners have considered the merits or limitations of the major past trends in leadership (Black et al. 2011; Black & Copsey 2014; Bruyere 2015), and these can be briefly summarised as follows:

- (1) ***Great man theories*** persisted in colonial times and lauded leaders (often men) of classical and historical times including Eastern and Western traditions, lasting into the twentieth century (Grint 2010). In conservation, the legacy of this is seen in the high regard held for particular personalities such as Roosevelt and Muir (and even contemporary, although gentler ‘heroic leader’ reverence for conservation leaders such as Gerald Durrell, Peter Scott, and Dian Fossey). Leaders were seen as ‘born not made’, having characters, or particular in-built traits (hence the common term ‘trait theory’), largely attributed to those individuals as a consequence of them being from the right social upbringing or class. I mention great man theory and trait theory together (both theories assuming that people had traits of leadership inherent in their being, character, or arising from their upbringing) only for completeness of this discussion, since this theoretical idea is largely debunked from all but fringe discussions of contemporary leadership.
- (2) ***Traditional ‘command-and-control’*** leadership is characterised by old-fashioned military structures, copied in European and North American business (factories, railways, industry, mining) from the 1800s up to the 1940s (Holling & Meffe 1996; Macdonald 1998; Kennedy 1994; Jacobs 2009). Command-and-control relies on structures, laws, incentives, threats, contracts, and standards. It focuses on efficiency of the organisational ‘machine’. Managers make decisions, specialists work in functional divisions, and workers get ever-simplified tasks. This approach is surprisingly resilient, embedded in education and cultural upbringing, and is still commonly encountered in modern organisations across all continents, including some in the conservation sector.
- (3) ***Behavioural theory*** brought a human psychological perspective to ‘managing people’ (in contrast to previous mechanistic assumptions about the organisation of work). Approaches were initiated by protagonists such as McGregor (1957, 1960), whose “Theory Y” offered “more adequate assumptions of human nature and human motivation” and “Situational Leadership” (Hersey & Blanchard 1969), where effective leadership style was related to the task and the competence of staff. Adair’s (1979) actioned centred “task-team-individual” leadership model added teamwork into this behavioural mix. Many of these behavioural theories and specialisms remain popular in management training and education.

- (4) **Transactional–transformational theories** emerged in the 1970s involving more sophisticated models of leadership (Burns 1978), where reinforcement of workers’ performance (transactional leadership behaviour – ‘I do this for you if you do that for me’) sit alongside new “transformational” behaviours which engage people by enhancing motivation, understanding, and self-worth (Bass 1997). The broad leadership definition covering those perspectives encourages clear vision, values, personal credibility, technical competence, conceptual skills, judgement, experimentation, and facilitating involvement (Peters & Waterman 1982; Kouzes & Posner 2007; Bennis 1999), with the best leaders demonstrating both transactional *and* transformational behaviours (Bass 1997).
- (5) **Transformational leadership** has since emerged to become the most dominant model in the past 30 years (Tourish 2008), with transactional elements viewed as ‘outmoded’ concepts now relegated to management history. Both modern leadership literature and education tend to solely emphasise transformational behaviour (Kennedy 1994) with leaders portrayed as ‘change masters’ and heroes (Slater 1999; Kanter 2003). Transformational leadership is about changing habits, loyalties, and behaviours of staff to develop a shared culture. However, this carries assumptions that people are the source of problems (Heifetz & Laurie 1997). The re-emergent heroic element of this perspective also raises questions (see Great Man Theories). Similarly, other unhealthy effects of the transformational perspective occur, with dialogue stifled (e.g. ‘you must stick to the narrative of our vision and values’), problem-solving is repressed, and there is a tendency for leaders to become blind to alternatives by ‘sticking to the plan’ (Seddon 2003; Tourish 2008). At worst, coercion of people through behavioural tools and hierarchy can arise, which is reminiscent of command-and-control.
- (6) **Servant leadership** approaches gained some traction at the turn of the millennium (Greenleaf 2002), and the idea resonates with sustainability and diversity, being focused on creating an environment where people can succeed, where leaders share power and offer a mentoring approach. This values-based approach to leading people draws the concept of leadership away from the personality of the leader and towards the needs of followers and other stakeholders.
- (7) **Systems thinking** is an alternative philosophy, based on systems theory, which arose in industrial circles in the 1920s (Shewhart 1931) and was developed in the 1940s and 1950s by Deming (1982) and Juran (1989), who steered transformation of organisations especially in Japan but also, later, in the United States and across the globe. A systems thinking leader seeks to optimise the system, which includes management behaviour, work rules, structure, decision-making, skills, methods, processes, and results (Senge 1990; Womack & Jones 1996; Seddon 2003). To achieve this, the leader’s role “works on the system” which is a fundamental change from “working on people” as advocated by all other models including command-and-control and transformational leadership (Seddon 2003; Senge 1990). Systems thinking is less commonly examined by leadership thinkers, perhaps because a systems approach is less about emphasising the leader (personal) and more about changing how leaders should think (conceptual). Conceptually, systems thinking leaders perceive and measure performance in different ways, consider causes of problems differently, and implement change and improvement using fundamentally different methods than those used by a conventional leader. In systems thinking, the system (and its purpose) is central, not the leader.

Conservation has tended in the past to consider the leader’s role either in charismatic terms (relating to specific individuals and their behaviour) or in structural terms limited to management

practice (Black et al. 2013). A recent wave of conservation management approaches include ‘good management practices’ such as the IUCN ‘Framework for Evaluating Protected Areas’ and the Conservation Measures Partnership’s ‘Open Standards for the Practice of Conservation’. These frameworks seek to offer an alternative approach, based on practice encountered in other sectors. However, all ‘management standards’ approaches have been heavily criticised. The constraints caused by the unwieldy bureaucracies that tend to follow the implementation of standards impose restrictions on creativity and problem-solving (Deming 1994; Seddon 2003). In short, management standards should *not* be considered good practice. Standards may appear to work well on paper but are devoid of the flexibility needed from leaders when managing conservation programmes. Adaptive management has also been discussed for many years but rarely observed in practice (Cundill et al. 2012). Instead of involving dynamic leadership which energises teams, adaptive management tends to revert to ‘management by review’ by committees and is difficult to apply in practice (Cundill et al. 2012). Conservation is better served by leadership practices which encourage and implement actions which benefit real conservation work.

### **Cultural perspectives on leadership**

As the economies across the world have become globalised, and corporations have developed as transnational organisations, understanding cultural differences has become increasingly important (Lewis 1996) in terms of both multicultural employee communities and international partnerships and collaborations. These challenges are encountered in the conservation sector whilst the nature of work in countries with different ethnicities, indigenous people, religious cultures, and people in landscapes which cross national boundaries further amplifies the need to be sensitive about culture. Indeed, the challenge within conservation is perhaps more intense than in many other sectors.

‘Culture’ consists of the distinctive features of a society or social group (and may include spiritual, material, and intellectual aspects) and relates to ways of living, traditions, beliefs, and value systems (Matsuura 2001). A host of different factors influence culture, including educational, professional, and organisational aspects (Beer 2012), so extensive cultural differences can emerge among people even within a single society (Koch & Koch 2007). Poor understanding of the impact of culture on the part of leaders is a real problem, since management studies have found that cultural insensitivity by leaders can break the psychological contract with employees (Restubog et al. 2007), namely people’s views on the relationship between leader and worker. The outcome is that effective work behaviour can be disrupted, or offence taken by people, such that it may even drive disruptive anti-organisational behaviour.

The leadership attributes which support multicultural and cross-cultural leadership have been identified by the Global Leadership & Organizational Behavior Effectiveness (GLOBE) project. Some leadership attributes appear to be universally endorsed (such as being trustworthy) and other attributes universally rejected (such as being egotistical); however, the majority of leadership attributes were actually found to be culturally contingent (Chhokar et al. 2007; House et al. 2004). Moreover, the behaviour of a leader can be governed by what is expected or desired from the society within which they are operating; successful leaders are found to be those who align their behaviour with the desired societal leadership style (Chhokar et al. 2007; House et al. 2004). Experience in working with people from different cultures suggests that a leadership approach which focuses people *on the work* appears to be effective rather than a leadership approach which emphasises each leader’s behaviour.

Importantly, Chung et al. (2011) identify behaviour to be avoided, namely unconventional behaviour by leaders (e.g. attempts to get people on their side) which becomes dysfunctional



when the leader's actions deviate from what followers expect, such as a lack of concern for conventional morality and harmony. Chung et al. (2011) suggest that leaders should avoid unconventional behaviour when seeking commitment from employees from other cultures.

Intercultural training may help leaders to gain insight and sensitivity (Knott et al. 2013), and increased familiarity and cross-cultural competence generally appears valuable in fitting with normal demands of the workplace, noting that different cultures take different perspectives on leadership (Lewis 1996). A conservation leader may not know everything about the cultures they encounter, but an approach which is sensitive to and can accommodate cultural effects remains important.

### **A basic cross-cultural model for leaders**

An understanding of leadership can be summarised in a simple model which translates across cultures and history, including Greek, Arabic, and Hindu (Dotlich et al. 2006), and balances three perspectives: head, heart, and guts.

- **Head:** a rational approach including knowledge, analysis, problem-solving, giving clarity.
- **Heart:** the emotional approach including empathy, consideration, care, excitement, celebration.
- **Guts:** the physical approach including courage, commitment, energy, gut feeling, decisiveness.

When we operate as leaders, most of us will lean towards one or two of these dimensions and be less good or less inclined to use the remaining one or two. While it is true that any one individual's brain has developed to operate more in one area than others, and we may have an intuitive value for certain approaches, that status is not definitive. We have plenty of opportunity to choose to take a different perspective. For example, if we tend to be rational, our past experiences may have taught us to be tactful when we communicate bad news. If we tend to be emotional, learning to take time to clearly explain a problem avoids getting into arguments with people. These 'life lessons' (often learned through previous bad experiences) can be learned much more quickly when we are aware of the processes going on in our heads and in the responses of people around us. If we learn to adapt to different consequences, then we are more likely to be successful in our approach.

Various safeguards (constraints) can prevent cross-cultural misinterpretation and subsequent problems. For example, well-communicated organisational values and expectations (shared norms), plus clear rules and sanctions alongside genuine team bonding, can be useful (Restubog et al. 2007). People's response to these approaches will depend on the level of collectivism in the local culture. However, in any situation these parameters, expectations, and conditions of employment must be clear at the outset to establish the psychological contract between followers and leaders.

### **The role of a leader**

Warren Bennis suggests that "Leadership is the capacity to translate vision into reality".

But what is this 'capacity' that Bennis talks about? A leader's understanding of their role (namely, the scope of what to do, priorities, and responsibilities) is critical to success and effectiveness. A leader who is focused upon themselves will end up driving outcomes which are self-serving rather than being properly focused on conservation. Leadership is usually associated with someone in a formal role, although often other people can 'take the lead'. This 'taking

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responsibility for ensuring things happen', whether doing it yourself or engaging others to do it, is leadership. This means that all professionals need to develop leadership capability to some degree or another, and the skills discussed in this book cover those areas of development, focusing on four aspects: knowledge, skills, attitudes, and behaviour or KSAB (Loffield et al. 2022).

### *What does leadership involve?*

The burgeoning leadership literature is full of definitions of leadership and the role of a leader, but like any role, leadership needs to be focused on its *purpose*. Your purpose as a leader is to take followers with you on your assigned endeavour. As Seddon (2003) might say, leadership is essentially about followership; but how do we make this conceptualisation useful? How do we 'operationalise' leadership and describe the leadership role in useful terms which describe what leaders should do? Deming (1994), one of the truly great management thinkers, initially referred to 'supervision' in the sense of a manager supervising the work that needed to be done. He initially used this quaint term 'supervision' (which reflected his upbringings in the early 1900s) but was subsequently prompted to change terminology and to use the word 'leadership' in his 1994 book (published immediately after his death), since it was by his admission, a form of leadership that he was describing. In making this change he provided additional, thought-provoking insight into the leadership role, in particular the effect leaders have on the ability of an organisation to improve (Deming 1994). De Haan (2016) recently described leadership as a process 'devoted to enhancing an organisation's effectiveness'. Against this, de Haan recognises that sociologists in the 1950s had been suggesting similar things. It is notable that Deming, in the 1950s, was discussing those same things in an industrial setting.

Reflecting on the previous discussion of the history of leadership thinking, in a practical sense, we need to move away from a purely personal, behavioural, 'humanistic' sense of leadership and move towards a wider consideration of *how leaders shape the organisation*, the mechanics of the work being done, and how resources are applied to support that activity. Concepts of leadership and management become interdependent; not one or the other, not one on one hand and the other separate from it. Modern leadership theory continues to reflect this blend.

### *Areas of leadership competence*

A conservation leader's role can be considered in terms of four dimensions of competence. The four dimensions could be used to describe the role itself (i.e. the areas of responsibility that a leader has to undertake) as well as describing the skill set required in a person within that role. When considering leadership competencies, we are interested in four areas of competence:

- *Individual competencies* (personal effectiveness), e.g. time management or language skills
- *Team and leadership competencies*, including how to develop high-performance teams
- *Organisational competencies*, e.g. policy, procedures, performance, sector knowledge
- *Technical competencies* for the specific role, such as scientific, project, or fundraising skills

A balanced leader looks to develop in all of these areas, and the level of competence in each can be developed to a greater or lesser extent according to role requirements and personal capability.

In a deep analysis of conservation leadership and management which I undertook with colleagues Jim Groombridge and Carl Jones (Black et al. 2011), our conclusions drew together all

the practical issues in which a conservation leader needs to have input and influence. The long list of skills, knowledge, and practices describes the areas of capability for conservation leaders. Since then, further research has examined these competences and provided new insight (Englefield et al. 2019; Black 2021), deriving a leadership competence framework relevant to the sector. The framework moves far beyond vision, influence, and mobilising people which have been the typical headlines of leadership referred to in contemporary discussions of the topic within the conservation sector. This book will investigate the range of competences outlined in this competence framework for conservation leaders. In covering all these topics, this book aims to guide your learning and expectations of what the leadership role means for you in your role, across your career.

### **What a leader says and what a leader does**

Our models and expectations of leadership are driven by norms which we see repeated by the leaders that we observe and encounter in our life. One of the most important things to note is how people respond to a leader, but it is worthwhile splitting this into two elements; the responses of other leaders (particularly the managers who report to us, our ‘leadership team’) and second, the wider organisation, the people doing the work.

Research has shown that middle managers tend to slip into ways of operating that reflect their own bosses’ preferred approach, and this is an unconscious pattern of behaviour (Van Houwelingen et al. 2017). This replication is amplified when managers are in proximity with senior leaders. More importantly, their copying of behaviour is regardless of whether the leader’s approach is good or bad. This means that bad leadership will simply encourage more bad leadership!

### ***What you as a leader do and say are important***

What you do includes your personal behaviour, your priorities, how you spend your time, even what you wear. All these things cast a shadow over the organisation and influence what is done even when you are not present. Some of this passing-on of behaviour is inadvertent. I had one colleague, a senior leader in a conservation NGO, who started working in shorts and wearing barefeet in the offices on hot working days. Within a few days he suddenly noticed one of his managers doing the same thing and was outraged by their informal and ‘unprofessional’ approach to workwear, only to realise that he had been doing this thing himself and had thereby set the example! Simply changing back to normal workwear resolved the issue.

Sadly, the same is true for negative behaviours: bullying, setting unreasonable deadlines, turning up late, rolling eyes in meetings, and so on. Bad leadership encourages bad leadership.

Followers can, of course, be more sceptical about leaders, indeed managers can be sceptical of a new leader’s approach for a period of time, after which they tend to align with the leader. The only way to break this cycle is to consciously choose not to copy the behaviour. For managers, this can be an exhausting challenge. Although other followers (other departments or partner organisations) can always resist or be unsupportive of leadership approaches that they do not like, if the power dynamic is against them, they are likely to hide their lack of support. The outcome is hidden dissent, which includes low productivity, withholding of ideas, and at worst, making choices to leave or not to work with the leader. By observation and experience of organisations, poor leaders will usually remain blind to this type of loss of productivity.

On the positive side, a good leader uses these responses proactively. A good leader communicates with people and gets to know their names, their jobs, their concerns. A good leader does

not have to always agree, or act on every request, but they do listen. They show their commitments in what they say and what they do (D. Middleton, personal communication).

#### ***Consistency between what you say and what you do demonstrates integrity***

Inconsistency between what you say and what you do demonstrates untrustworthiness or that you do not know what you are talking about. Sadly, I have observed this on many occasions. People are generally very good at detecting the difference between what is said and what is done when it relates to them (when it does not relate to us directly, as with politics, humans often appear quite blind to this inconsistency!). A leader who is considered untrustworthy is simply not trusted and staff or partners will choose to not share work, skills, ideas, or even solutions to problems to any great extent. People's irritation with inconsistency is amplified in some cultures (Lewis 1996) and can be highly damaging if one is attempting to seek support and commitment of others. The leader's team and the work they produce will, over time, 'rot', degenerate, and lose effectiveness. This dysfunction is most quickly observed as low morale but soon affects results.

Integrity is a vital component of leadership (Coppin & Barratt 2002), and the easiest way to demonstrate this through habit is by careful messaging and behaviour on a day-to-day basis. This is why having a clear leadership ethos is important – what are you about as a leader?

The impact of one's leadership ethos is examined in more detail in Chapter 4.

#### **The problem with personality-driven leadership**

The problem with personality-driven leadership is that a leader often tends to identify 'leadership' with themselves. Essentially, they consider "I am a leader, so leadership is about me". It is a problem of ego. This will be discussed more in Chapter 2 but is worth brief consideration here.

Personality can bring a lot to the role of leadership, oiling the wheels of communication, enabling openness, sharing, loyalty, and so on. However, the same traits can give rise to the risk that people (and the leader themselves) suffer manipulation, distraction, even coercion. Worse, ego can cause delusion and a lack of a sense of reality. We have to only consider the errors in judgement made by many leaders in their personal, professional, or financial lives to understand this potential problem. At the same time, conservation professionals will encounter people who wish to disrupt, oppose, or undermine conservation efforts (Bonar 2007), and leaders need resilience and capability to fend off these challenges. Of course, we are all human and fallible, and to some degree we can fall into the trap of operating on our self-centred agendas, but for those people who are in a leadership role, these risks and fallibilities are amplified.

De Haan and Kasozi (2014) identified 11 strands of personality that emerge at different times under leadership pressure. Four examples of these leadership patterns are given here (as a warning).

***Charming manipulators***, who brush up against rules, and strict accountability may go out of the window. However, the leader believes rules are made to be broken and finds it hard to be held accountable for their actions. An accident in the making waiting to happen.

***Playful encouragers*** find it difficult to take responsibility for their action. What they say is not what they really believe, making it hard to take responsibility for their own views or actions.

***Glowing Gatsbies*** influence from the front and bask in successes. They criticise others rather than themselves, believe they are right, and everyone else is wrong and not up to their jobs.

***Detached diplomats*** are in their own world, disengaged from those around them, making it hard to keep organisational issues in focus, so are disconnected from day-to-day work.

And these are just four of De Haan and Kasozi's (2014) examples. Clearly, the potential for dysfunctional behaviour to emerge in leaders is very high. At worst either the sycophantic behaviour of colleagues or narcissistic behaviour by leaders themselves can cause serious problems, not in the least because it draws attention away from the purpose of our organisations, namely conservation.

The challenge, in a nutshell, is to discard egocentric leadership behaviour (Kouzes & Posner 2007). At first glance, this may appear completely anathema to the whole idea of leadership! Indeed, it is a challenge to move from a traditional, behaviourally based understanding of leadership (i.e. thinking that what I am like, and how I influence and direct others, is leadership) towards a picture of more effective leadership (how my behaviour interacts with others, how behaviour is influenced by work, organisation, and results, and how those latter elements are influenced by my preconceptions and biases about work design).

A transformed perspective requires you to learn how to be clear on what you, as a leader, should actually be doing to positively influence overall performance. As you walk through this book, the intention is that you encounter elements which enable you to move forward in terms of the maturity of your thinking and to explore and develop new skill sets.

### **An introduction to Seven Levels of Leadership Maturity**

In an ideal world, we could learn effective leadership practice today and apply it tomorrow to become a transformed and more effective leader. Learning is more complex in reality.

It is now well understood on the basis of neuroscientific research that the human brain changes and develops throughout our lifetime. The human brain is essentially very 'plastic' (Jacobs 2009; Peters 2012), in that it can adapt pathways to steer our behaviour and enable us to succeed in life. This is learning. Of course, learning is not simply the accumulation of knowledge. It includes our cognition and perception; our ability to consider alternative modes of behaviour; response to fear, threat, and circumstance; and our ability to absorb and assimilate values, morals, and guiding principles. In the past, many psychologists suspected this to be the case, and this is reflected in early theories in motivation (Maslow 1970), including the work of Abraham Maslow, Clare Graves, Robert Kegan, Elliot Jaques, Jane Loevinger, Bill Torbert, Lawrence Kohlberg, and Susan Cook-Greuter. Even the English playwright William Shakespeare hinted at these ideas with his 'Seven Ages of Man' (Bennis 2004).

Whilst a number of these notable psychologists worked in different aspects of human behaviour and perception, their common observation is that adult development tends to run through periods of transition followed in each instance by a plateau of stability. The combination of sequences of transitioning and plateaux forms the basis of most models of adult development, and this is also the case in considering stages of leadership maturity. Various frameworks of leadership have been mapped across various dimensions and appear to follow a reasonable model of 'Seven Stages of Leader Development' (Rook & Torbert 2005; Torbert et al. 2004; Bennis 2004; Barrett 2017). The characteristics of each of these seven stages are summarised in Table 1.1 and are considered here. Remember that this is a brief introduction, and we will explore deeper elements of the competences involved as we progress through subsequent chapters in this book.

What is observed at the developmental stages is that people may progress to a stage or remain stuck in a stage. The degree of growth is usually controlled by whether a person's psychological development has matched the activities that they normally undertake. If a person is in an unchallenging environment, or are themselves close-minded to personal development and growth, then there is no inherent need for further development. On the other hand, if new situations and

*Table 1.1* A summary of the Seven Levels of Leadership following alignment of the suggestions of Rook and Torbert (2005), and Bennis (2004). See also Barrett (2017).

Level	Bennis's 'ages'	Rooke & Torbert	Summary definition (T. Sexton, personal communication)
Post-Conventional	7 <b>The Sage</b> – Mentor to others, keep plugged into the changing world	<b>Synergist</b> – Integrates wisdom with a deep sense of global conscience. Happier outside organisational boundaries than inside.	<b>Luminary</b> Carries the ability to view self, the situation, and society simultaneously, from an external perspective. Not being driven by our ego, we tend to focus on the growth and well-being of people.
	6 <b>The Statesman</b> – Passes on wisdom for the organisation. No distracting ambition. Avoids entanglement in organisational politics.	<b>Strategist</b> – Generates organisational and personal transformations. Sees the system they are in.	<b>Service</b> Not fully invested in our constructed identity, so less need to defend ourselves, releasing psychological space to include others and to collaborate. We become 'inter-dependent'.
	5 <b>The General</b> – Needs to be able to hear truth (and speak it). Avoids arrogance. Is aware of change. Understands your context.	<b>Self-Questioning</b> – Inspired by meaning and purpose. Challenges the status quo to find new ways.	<b>Clarity</b> In a more VUCA world, we find that our constructed identity constrains our ability to respond. As we gradually let go of this identity, we can adopt multiple perspectives, hold contradictory views, and behave with agility.
	4 <b>The Bearded Soldier</b> – Confident, comfort, conviction. Followers reliant and do what you say. Nurture those below you. Hire 'betters'.	<b>Achiever</b> – Driven by goals, achievement, and meeting the standards they have set.	<b>Delivery</b> Develop and use our skills to add value and find our own way to deliver high-performance results. This confidence enables us to construct our identity as a leader and be 'independent'.
Conventional	3 <b>Lover</b> – Fine-tune your relationships. Establish a common mission. Know what to pay attention to.	<b>Expert</b> – Motivated to gain mastery and expertise. Values logic and respects other experts.	<b>Competence</b> We develop and gradually acquire more knowledge, skills, and expertise. Through using these we are able to add greater value. This gives us greater confidence to separate ourselves from our 'group' and establish our own identity.
	2 <b>The Schoolboy</b> – You are judged (what you say/do) Win people over. Let others show what they know.	<b>Conformer</b> – Focuses on conforming with the rules and norms of the organisation or peers.	<b>Inclusion</b> We turn to a 'group' to protect us from others. To avoid being ejected from the group we tend to adopt prevailing norms of behaviour, beliefs, and values. We become 'dependent' on other people.
	1 <b>The Infant</b> – Needs mentoring – sometimes from those around or in the team. Or an external.	<b>Opportunist</b> – Deeply concerned with own needs. Tries to win any way possible.	<b>Power and Control</b> Here we find safety in our authority, position, and the rule book. We tend to use whatever power we have available to us, derived from the different roles we play in life, to protect ourselves.

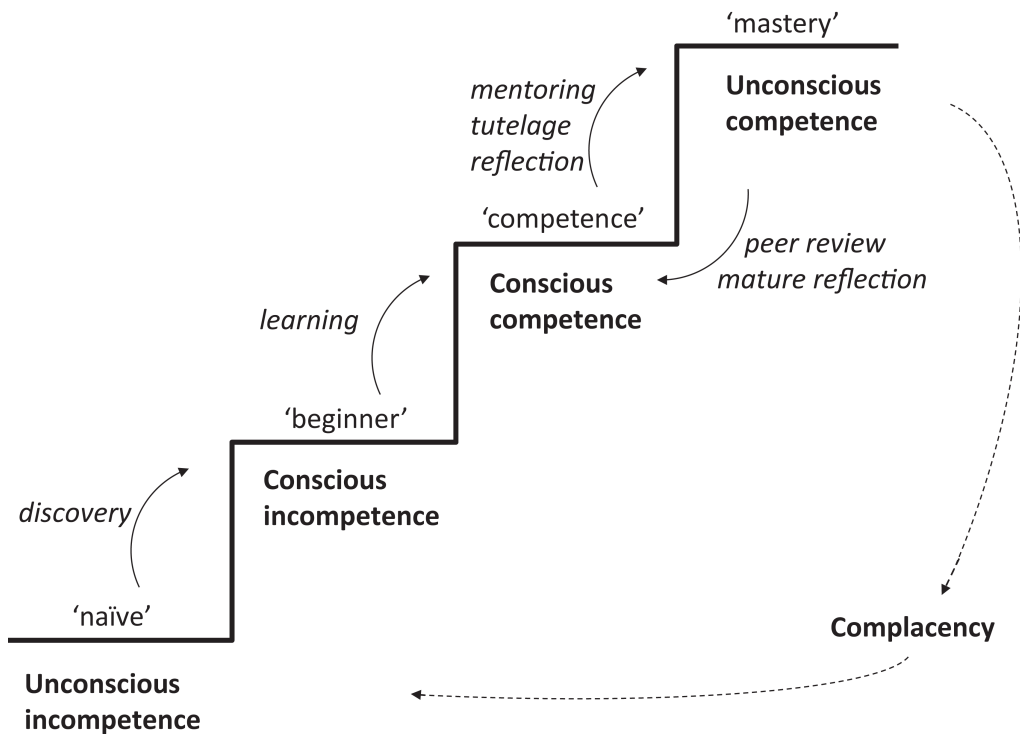


Figure 1.2 The ladder of competence (Black 2015) which was devised to illustrate the general concepts of developmental stages which learners pass through, as suggested by Robinson (1974).

circumstances are encountered, a person can choose to perceive them in the light of the challenges that they represent. In essence, we can choose to develop our skills and adapt, or in some circumstances we are forced to adapt. If we are under levels of change or challenge that create stress or anxiety, this development becomes critical.

Our ability to assimilate experience, understand how we have adapted, and consider how we confronted different situations will determine whether we are able to 'mature' in terms of our psychological development as an individual (Coppin & Barratt 2002; Peters 2012). Clearly, developmental support to enable this learning can be important. Support may be in the form of wise counsel of others, problem-solving, personal reflection, feedback, mentoring, or coaching. The insights that we gain as we transition between each general stage of development are important.

If we understand that within our leadership role, different levels of leadership development exist and we understand and expect similar transitions in learning, then we have made an important first step. This can be most simply explained by considering Robinson's (1974) ladder of competence (Figure 1.2). If these levels of leadership, as defined stages in personal development, are not something we have considered before, then we have made that first important first step; we are now conscious of *not* knowing the next level of leadership learning, prompting us to learn more!

The first four levels of leadership should be reasonably familiar as they are commonly encountered in conventional organisational situations (in the approaches taken by team leaders,

managers, and directors in organisations) and reflect the ways that leaders operate in roles in conservation.

- **Level 1** leadership is basic supervisory management, reliant on the hierarchy of the job role.
- **Level 2** is team leadership involving development of values, beliefs, and rules shared by all members of the team.
- **Level 3** leaders not only rely on knowledge and skill for power but also attend to team relationships.
- **Level 4** is a mature leader, most often encountered in confident managers who nurture others.

Higher levels of leadership maturity are expressed by individuals demonstrating less conventional behaviours which are less familiar as leadership approaches and less commonly observed.

- **Level 5** involves letting go of ego as the basis of perspective, instead focusing on purpose and context.
- **Level 6** is a leader who is no longer defensive, is inter-dependent and open to collaboration.
- **Level 7** is a mentoring leader with an outside-in view, working beyond organisation boundaries.

Having worked with hundreds of leaders over the years (including chief executives, chairmen and director generals) in many different industrial, commercial, government, educational, and NGO organisations, I have encountered only a few individuals operating at levels 6 and 7 and very few even at level 5. Most good senior managers, if they have developed themselves well and progressed well in their careers get to level 3 or level 4. The reason for this limitation is a reliance on ego. People over-identify themselves with their leadership role. The disadvantage of this is that their teams (or wider organisation) become reliant on them and therefore less adaptive. Ironically, the very behaviours which get these people to progress successfully to levels 3 and 4 tend to prevent them progressing to level 5 and above. Most biographies of business leaders encountered in airport bookstalls will describe this type of leadership story: how I did it, how I got the best people, how I developed a culture, and so on. The same messages are apparent in well-known business leaders in the media, and indeed conservation leaders can be found wanting in this area. There are exceptions, and it is important to learn from these exceptions.

That said, whichever level a person is at, the best leaders are aware of developmental issues they face and make choices as they move through stages in their career. This means their leadership evolves, and they are therefore able to accelerate their progression to higher levels of leadership maturity. I have been delighted to see individuals making these conscious choices with humility and energy, and the outcomes are excellent for themselves personally and for the organisations in which they work. Several examples of these specific people within conservation can be encountered in the short biographies in Goodall (2010). Species and ecosystems, landscapes and human communities are benefitting as a direct result of their work.

### **Learning to learn as a leader**

Progression in leadership competence typically requires an openness to feedback from others, a willingness to listen and understand (including opposing views), the humility to reflect on one's own perspectives, and the ability to consider the perspectives of others (Kouzes & Posner 2007; Caldwell et al. 2017). All of these skills are hard to apply in the early stages of one's career,



when self-identity, doubt, lack of trust, and a reliance on personal ego are the mainstays of the person's leadership, indicating a relatively naïve understanding of what a leader should be.

This is why a progression through the levels of leadership is undertaken (Bennis 2004), taking experiential and cognitive steps that are natural elements of understanding the leadership role.

In terms of personal growth and development there are two learning points (Coppin & Barratt 2002), both of which we will revisit on a number of occasions as we explore topics in later chapters:

- (1) Personal growth can be self-limited. We can remain stuck in a stage and never progress to higher levels of learning, ability, insight, and performance. This occurs either by not knowing about the next stage or by choosing to stay in the comfort zone of the stage in which we currently reside.
- (2) The more open-minded we are to wider perspectives and learning, the better able we are to accelerate through the transitions and stages ahead. This state of mind is also essential to move to the higher stages of leadership.

The aim of this book is to tackle both issues. Chapter topics aim to build an understanding of the core of skills, perspectives, and capacity which should be considered part of the leadership role. The exercises at the end of each chapter aim to open the reader's mind to the possibilities of thinking in a new way about their leadership approach. Leadership is a multidimensional topic, and the competences acquired in one area will interact with the abilities and approaches in other areas. Learning will reveal surprises in some aspects while other topics may be easy to accept.

Figure 1.2 shows the steps in the ladder of competence which we must pass through as we develop mastery of any skill. A common analogy which can explain this concept is one of learning to drive a car to explain this concept. Before we drive a car (and think of a manual gear-shift vehicle in this instance) we are confident that we would be capable of doing it ourselves, since we have seen family, friends, and people in films and TV shows driving cars. We are 'unconsciously incompetent' – in other words we do not know that we do not know how to drive a car. On our first driving lesson our instructor tells us to depress the clutch pedal and engage first gear, to start to raise the clutch, take off the handbrake, reach biting point on the clutch and whoops! The car jumps forward and stalls. Now we *know* we are incompetent. Clutch control is a skill we now realise that we need to learn, so we are now 'consciously incompetent'! This is an important step as it gives us focus. Now we can follow instruction and carefully think and concentrate on developing new skills (towards conscious competence), so thinking about looking in the mirror, signalling, road position, managing speed, stopping distances, reading and understanding road signs, and so on. Even once we have passed our test, we will still be in the conscious competence stage. Months or years later we will have accrued the experience where we do this automatically (unconscious competence).

If as a reader you are surprised or challenged by some of the leadership topics covered in this book, then I suggest that you reflect on Figure 1.2. As you encounter new perspectives on leadership, this will open up a new level of awareness of what needs to be done (step 1 discovery) and with honesty this realisation will allow us to make steps 2 and 3 to begin to work towards mastering new skills.

Leadership is a continual journey of learning, experience, and reflection. It is unsurprising that few leaders reach mastery at levels 6 and 7. The hope is that by encountering new learning, you will acquire skills and develop approaches that will make you a highly effective conservation leader.

### **Case Box 1 Conservation is a human issue: experiences from past failures and successes**

Discussions about leadership in the conservation sector really emerged only in the middle years of the 2000s, as practitioners rallied around the idea that leading people and projects was something that we professionals must really learn to do. At the time, however, although the ideas that were helpfully raised in papers like those of Dietz et al. (2004) and Manolis et al. (2009) brought the subject to the fore, they did not define any particular solution. An outsider could see that people in conservation *sensed* that they knew something about leadership rather more than *actually knowing* what leadership was needed to make a difference.

When Black et al. (2011) first examined the issue, they were interested in essentially two things: (i) diagnosing the problems of leadership in conservation and (ii) synthesising some solutions. The recurring problems in conservation projects that failed could be summarised as:

- (1) Unachievable goals in terms of scope, timescale, or assumptions
- (2) Excessive bureaucratic structures or functional divisions
- (3) Not sharing information in a timely manner (probably due to either bureaucracy, apathy, or error)
- (4) Poor decision-making (slow and indecisive), risk aversion, or uninformed decisions (complicated by lack of data)
- (5) Ideologically driven staff not committed to programme culture, causing disruption and conflict over approaches
- (6) Methodological dissonance in the programme team, including different technical preferences
- (7) Spending too much time on unsolvable issues outside/not under the programme's influence
- (8) Stifling innovation by adherence to procedure and protocol
- (9) Failure to learn or seek advice, or conversely, inappropriately delegating decisions to outsiders
- (10) Rigid people management and a failure to play to people's strengths within the team

By clear observation and somewhat surprisingly, all these issues relate to human beings and human behaviour. Failure was not so much a function of species' vulnerability, population status, genetics, threats, or similar biological variables, but rather, its chances in the hands of those people who were professionally or ideologically concerned with it. At first glance, 'people are the problem', but closer inspection reveals that *it is the way people are organised and led which is the problem*.

Conservation success is a question of leadership and organisation development as much as science (Figure 1.3).



*Figure 1.3* Technical fieldwork with highly endangered species, such as work here with the nests of Blue Iguana on Grand Cayman, requires specialised knowledge of fragile species and ecosystems. However, it is the way that the team is used, how people are engaged and made able to carry out the work, and their ability to collaborate with others within and outside the team which are the main influences on whether species recovery will be successful.

*Source:* Photo credit: Shannon Farrington

### **Chapter 1 reflection – A first step to effective leadership is to reject bad leadership ideas**

Consider any leadership theories or concepts encountered in this chapter. The following are some of the main learning points.

- Leaders are made, not born.
- Leadership learning is experiential (often by accident, circumstances, personal grit).
- Many traditional leadership models have limitations which do not suit conservation.
- Conservation involves high performance, many cultures, collaboration, and tight resources.
- Cross-cultural contexts demand a leader's integrity, maintaining the psychological contract.
- A basic universal approach seeks balance in the head, heart, and gut preferences of a leader.

- Leadership includes individual, team leadership, organisational, and technical competencies.
- Integrity is critical – effective leaders are consistent in what they say and what they do.
- Reliance on personal behaviour is not the best way to effective leadership and can be risky.
- Leaders need to master low-levels skills before progressing to a higher level of competence.

### Exercise 1 – personal development questions

Self-reflection is a useful approach to help understand your leadership approach and assumptions. Consider the points raised in this chapter in relation to your own knowledge of leadership.

- (1) Are any of the theories or approaches of which you were previously aware now considered out-of-date or not helpful? If so, how does this change your thoughts about leadership?
- (2) Are any new ideas in this chapter worth exploration? List them down.
- (3) At which of the seven levels of leadership would you consider you currently operate?

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## 2 Avoiding pitfalls in conservation leadership

### Personal Perspective – Introduction

In the late 1990s and through the 2000s, there was a trend in human resources circles to criticise the ‘deficit model’ for managing people. Instead, at that time, the preferred approach was to seek to overlook the negatives in someone’s approach and instead focus on positives and to encourage those positive elements. From a personal perspective, I highly value the development of positive relationships with colleagues (seniors, subordinates, peers, externals) since this is a basis for cementing trust and enjoyment in work, and it also allows frank conversations and the ability to focus on improvement; work should be a positive social experience. That said, the problem with a ‘being nice to make things nice’ approach (which rejects talking about negatives, or problems, and ducks personal accountability) is that it creates an *opposite* environment. If I tell you that you would be more effective doing X, and I ignore mentioning that you are disastrous at Y, it creates three, four, or five issues: (i) you continue to think that Y is OK; (ii) you think doing X will make you better, with nothing else changing; (iii) when X doesn’t work it proves doing existing things like Y is OK; (iv) in X not working you will assume most of what else I say is rubbish; and (v) if I am not straight with you, and you find out later that X is a bad approach, there is no basis for us building trust.

The issue with not dealing with, and eliminating, bad management practice is that we assume that adding better practices will make things better. It is a flawed logic, as John Seddon would say, if we try to ‘do wrong things righter’, and is clearly not very sensible. There is a theoretical basis for this phenomenon; in a system (like an organisation or a team), any adjustment will be interconnected to other aspects in the system. Instead, the trick is to *remove* the elements which cause disruption (like negative leadership approaches), to reduce negative effects (like demotivation of people or a lack or appropriate focus in work); the system itself will readjust to a steady state of higher performance. Essentially, if you do not remove negatives first but simply add positive leadership approaches, it is rather like trying to push water uphill. Effective leaders and managers should do the right things right. This means identifying and dispensing with incorrect thinking, bad practice, and self-defeating behaviour. If we are honest about how we lead, we must be ready to take new perspectives and dispense with old assumptions. There are *bad* ways to lead; many are well-established, visible, and often repeated, yet simply do not yield good results. As a responsible professional I cannot let these pass without challenge, which is why we have this chapter. Read it with care and with an open mind.



## **Ego, charisma, and narcissism**

The idea that “Leaders are born and not made” has largely been consigned to the dustbin of history and is now rarely cited (perhaps with the exception of mentions by people who do not have any other justification for being in leadership!). Of course, that is not to say that people never fall into leadership by reason of circumstance, education, and privilege; it happens. However, their success will always be influenced by the effectiveness of their approach in the role and, in a world of changing circumstances, that person’s ability to adapt to evolving contexts.

People in leadership roles who succeed by luck are not really excellent leaders, just lucky ones. In conservation we do not want to succeed by luck, we should instead prefer a reasonable probability of success with the best level of predictability as is possible. Predictable success (where acceptable performance achieved yesterday is likely to be achieved today, and tomorrow, and in months ahead) is more likely to deliver a sustainable future than is luck. If predictability is pursued, and we do not succeed, or bad circumstances arise (i.e. bad luck), then at least we know what we have done and why and can learn from the harsh experience. Later chapters discuss how results data can be analysed to sift out lucky outcomes from predictable outcomes. We will explore ‘luck’ further in those chapters and examine different occasions and types of outcomes, and what we can learn or do about them (since clearly sometimes a lucky outcome is something we can learn from in a positive way for future reference). However, a leader who *relies* on luck is less likely to learn from it.

We must recognise, with a sense of realism (since we live in the real world after all), that most leaders, or at least the ones that become visible to us, appear to project some level of charisma, charm, ego, or presence (call it what you will). The question is whether charisma is itself a trait of effective leadership (i.e. that charisma is a cause of leadership success, or not), or is charisma an artefact of human psychology and behaviour that just happens to be associated with leadership? By way of comparison, there is some evidence that taller people tend to succeed in executive careers – is this causal? Clearly not. It is just that tall people get noticed and promoted; tallness is nothing to do with management effectiveness, there is association but no cause. We must treat charisma with similar caution. However, there is more to the issue of charisma.

### ***The problem of ego***

Studies of Fortune 500 leaders have identified that many portray narcissistic tendencies, unethical practice, and even sociopathic behaviour (Blair et al. 2017; Stein 2013; Lubit 2002; Rijsenbilt & Commandeur 2013; Pech & Slade 2007). Is narcissism what is needed for successful leadership? Again no; these are traits which drive a person into a role or profession, arising from their ambition and pursuit of fulfilment (which in egocentric people is often about power and superiority over others). There is also a possibility that the systems they operate in, including commercial markets which are reliant on achieving short-term goals and have a profit focus, merely encourage people with those self-centred behaviours rather than those people who consider wider groups of stakeholders, or who value sustainability, or welfare or other helpful social or ecological perspectives. Narcissism is a well-researched theme in leadership studies. Many leaders tend to have strong charisma and well-developed egos, but this is likely a factor of how they got into leadership and not whether they are effective in carrying out a leadership role.

Nevertheless, the part played in leadership by charisma and ego remains a point of debate, and many a leader would cite their charisma as a key trait. Having some personal charisma is a helpful attribute, but it is not a substitute for real leadership. The problem in leadership roles is

that ego and charisma can quickly become a negative feature and have a disastrous impact on the success of the team or organisation which is being led.

The role of the leader carries the risk that the person in that role identifies so closely with the job that they conflate their purpose in the role with themselves as an individual person (emphasising ‘I am your leader’ rather than ‘I am leading you’ or ‘I am leading us’). The meshing of ego with leadership rarely ends in optimal performance and can be disastrous. The most destructive leaders in history, whether political, military or industrial, tend to be ego-driven, as identified in the literature (Burkle 2016), as is also the case with recent examples of corrupt and damaging behaviour from individuals in corporate business, commerce, and media (Boddy 2016).

At a practical level in the field of wildlife conservation, are there similar problems, and should we really be concerned about ego? After all, many successful people are ego-driven and charismatic, maybe even a bit narcissistic. If that is true, are we measuring success in these people in the correct ways, and how does this reflect in their career development, role, profile, or reputation? Does conservation get the leaders that it really needs? This might seem like we are attacking a straw man (i.e. addressing an unrelated issue to appear to create an argument – in this case for a different type of leadership). This is not the case; powerholders are known to act in ways that subordinates react to accomplish their desires (Fiske 2010; Gruenfeld et al. 2008). Clearly, ego and charisma are real issues for people in all walks of life, and we need to learn how to self-manage those aspects so that, as leaders, we are not limiting ourselves by the unknown impact of our perspectives and behaviours on the people we work with or wish to influence.

More than this, in conservation, we are more interested in the sustainable recovery of species and ecosystems of concern, which has very little to do with any single person’s ego. Do we really need to worry about these personality traits at all? Well, ego-driven leaders have vulnerabilities. There is a reverse effect upon ego of which we must be aware. People in positions of power tend towards being self-objectified, even subconsciously when gratified by others (Inesi et al. 2014). In other words, subordinates may ingratiate themselves or massage the egos of the powerful to achieve what the subordinate wishes. Essentially, people suck up to an ego-driven leader to get their own way or to manipulate the leader’s thinking. Bad, unhelpful, or inappropriate things may get done under the unwitting stewardship of an egocentred leader. Even in the conservation sector I have seen organisations waste hundreds of thousands of pounds on facilities which have little added-value or never get utilised on the whim of a subordinate who could pull the right decision-making strings. A self-aware, purpose-driven leader (i.e. not ego-driven) will be less vulnerable to this kind of distraction or deception.

The fundamental problem with ego-driven behaviour is that it distracts the leader, and everyone else, from the real job, the purpose of conservation work. If the whole team is focused on keeping the leader happy, or the leader’s reputation intact, then that is time taken away from doing the real work of conservation. Few leaders would tell someone that their job is to keep the leader happy (although staggeringly, I have heard it said to me by one boss!), but even if it is unsaid, a leader’s ego-driven actions can by default drive the team into a mode of working that is leader-pleasing rather than purposefully focused on conservation.

So what should an effective, yet charismatic leader do *to avoid* this problem?

### *Towards a solution for ego*

Frankly, for individuals with deeply embedded personality traits such as narcissism, any effort to shift their perspective is unlikely to be effective, since the behaviour is too closely associated with their self-identity (Jacobs 2009). Only in-depth counselling would solve the problem. For an organisation it is better that they just leave. However, for the vast majority of people, being

aware of the lure of ego is enough to enable each of us to consider how to overcome its potential pitfalls.

In Kouzes and Posner's (2007) thoroughly researched and best-selling leadership commentary *The Leadership Challenge*, the authors make a particular point of reminding aspiring leaders to actively seek 'humility as an antidote to hubris'. Essentially, as a leader you must be mindful of the allure of ego and be active in humbly considering each situation that you encounter and reflecting on your own practice rather than slip into complacency or the misplaced assumption that 'you know best'. Understanding your true value as a leader is an important part of your personal leadership ethos.

Another way to think about your true value is this: when you finish in your leadership role and leave your organisation, people are likely to be quick to forget your contribution. This is normal, because workers live in the present work situation, not past successes. We also know in conservation things can change so rapidly that what was achieved in the past can sometimes become a footnote. Do we really want to be remembered for a few silly stories or anecdotes about mistakes we made or minor successes now largely forgotten? Probably not. The best leaders *are* able to leave a legacy which lasts beyond their tenure, and we see this in the best conservation leaders. A successful conservation career will be reflected in sustainable results, spread across a wide field of influence, over a career lifetime and beyond. To achieve this, the only way the best leaders can succeed is through other people, namely their teams and the people they inspire, encourage, and develop to take on the work in future generations.

As a leader, your only true legacy will rest upon whether you have developed and encouraged the next set of leaders, people who are capable and self-aware, think in a mature manner, have a broad perspective, and work successfully with others. If you are successful in developing other leaders during your time in a leadership role, then you are giving your organisation the best chance for sustained success in the future. You will certainly be remembered by those people for your contribution. As Tom Peters, the renowned leadership guru (Peters & Austin 1985; Peters 1992, 2005) and practitioner states:

Leaders don't create followers, they create more leaders.

This solution, to develop others, may seem limited – surely there is more? Clearly, yes there is self-awareness, self-control, and a re-orientation of one's thinking from an ego-driven to purpose-driven mindset (i.e. achieving conservation goals). However, in terms of a leader's tangible effort, the active development of others, to give them full capability, responsibility, and ability to constructively debate or raise concerns; that coaching action is concrete and visible.

This responsibility is one reason why these attributes of developing others are seen in the highest levels of the Seven Stages of Leadership (Chapter 1). A highly effective leader is less bothered about themselves than they are about developing the organisation (largely meaning the people in it) to achieve its purpose. The opposite is sadly true for the narcissist and ego-driven leaders who are largely remembered for particular egocentric traits, over and above any actual contribution they may have made in the job (good or bad).

As simple as it sounds. The inner solution to egocentric leadership is to actively choose not to be egocentric. Perceive yourself as a leader being defined by what your team achieves, make decisions based on active reference to the purpose of your organisation (not personal preference), and seek feedback from trusted others concerning your approach and its effectiveness. All of these choices require deliberate effort and repeated practice before they become routine (Coppin & Barratt 2002), so they become valued habits and part of one's 'mindset'. We will explore all of these facets of change in later chapters.

### **Illusions of control – management by numbers, win-lose, and zero-sum perspectives**

When in a leadership or management role it is easy to slip into a mode of working where the tasks that you undertake are performed to carry out the role rather than to take the team (or organisation) forward. This is sometimes termed a ‘silo mentality’ (MacDonald 1998); in other words, we do our bit and that is enough. In the 1970s and 1980s, there was a trend (which continues to this day, although under other labels) for pursuing ‘Management by Objectives’ as advocated by Peter Drucker (1976). His analysis suggested that if a leader has an objective, they can set sub-objectives to the management team, each of whom themselves can set sub-objectives to their subordinates and so on. All that is then needed is to monitor those objectives, by reviewing progress up and down the hierarchy – and by magic, performance is achieved. It is deceptively simple, and plausible, but it is fundamentally flawed and simplistic.

#### ***The problem of control***

Unfortunately, all that happens with these cascades of information is we end up managing the objectives themselves rather than understanding and improving the work. Management by objectives leads to a reporting-and-review culture, where people spend time at their desks writing reports or reading reports or in meetings with other people talking about the reports (Seddon 2003). This is not ‘management’, and it is certainly not leadership, and it is unlikely to encourage those people in charge (with responsibility and authority to make decisions and allocate resources) to address the issues that will make the organisation work better. To catch a phrase, it is simply the ‘work of management’ which is not work at all (J. Seddon, personal communication).

This ‘work of management’ also leads to self-fulfilling illusions in the mind of the leader. If they read the reports and look at the numbers, they assume that they understand what is going on, when frankly they do not. These illusions are not reality; they do not describe what people are contending with in their work. The danger is that the leader has a false sense of reality which may only encourage that leader to get people to similarly *not* address the real issues. This is a worst-case scenario, but it is one that I have observed in organisations during my own career, where people do what the boss asks even when they know it is not what is needed to improve performance (or continues to fail to deal with the relevant problems for the organisation).

At worse people get into building a fiction (dare I say it, lying) about what is going on or what results are feasible to feed the hierarchy that has set their objectives, targets, and sometimes irrelevant results which are requested in reports. It happens in health service, police forces, and schools (Seddon 2008), so it must occur in conservation organisations. This has been known with carefully reintroduced rare species being hunted by powerful people, yet the loss of the reintroduced population not being publicised by the local team. A different, specific example from Brazil is the discovery of a sole reintroduced female Spix Macaw (*Cyanopsitta spixii*) found killed by a powerline but not reported by the person for fear of disrupting programme objectives and funding (Juniper 2004), despite the importance of the death and the cause of death on the release initiative. That person wasn’t being deceptive or disruptive; they wanted the programme to continue, but the expectations and priorities which reflected the culture of the programme inadvertently drove this undesirable behaviour.

Unfortunately, if you are a person who wants to take control, you are assuming that gaining control will actually achieve control and will secure your desired outcome. In reality, this is only one of many possible outcomes, so in effect is unlikely. Systems theory tells us that it is more likely that in pressing for control you will only end up *losing control*. The explanations for this

are explored in later chapters, but in short, the reasons why efforts to control actually *reduce* control include the following.

- People's motivation can be undermined, so they work less effectively.
- Effort to correct results makes a system perform even worse (the phenomenon of 'hunting').
- Teams are inadvertently set to work against each other's interests (goal displacement).
- Bureaucracies can be formed (e.g. report writing and reading, running meetings) which consume time and resources at the expense of value-adding conservation work.

In addition, managers who like to 'make things achievable' often break work down into targets. For example, if you find the achievement of a core purpose very challenging the temptation is to break it down into sub goals which get to a point of goals based on methods (e.g. 'deliver 5 education events', or 'dig 3 ditches') which might not relate at all to achieving the overall desired outcome, so the organisation ends up chasing trivial objectives ('deliverables') and not achieving the important outcome (conservation of species and ecosystems of concern).

### *Towards a solution for 'control freaks'*

A different mindset is required, *moving away from control*, towards something different – *influence*. 'Influence' is *not* about psychological manipulation, nor 'getting your own way', but instead involves transparency in communication and a sense of realism about what can be affected (e.g. by an intervention) and what cannot be changed. Influence is also about encouraging followership, based on people making choices. It is a move away from 'what we can control' (i.e. not very much) towards 'what we can affect' (which is much more and has wider impact).

Influence also recognises that people who work for you have many varying motivations, and we cannot 'manage' people in the sense of controlling them. Influence is also focused on continuous improvement, not elimination of error. Influence recognises that natural variations in outcomes occur; some good, some bad. The ideal is to minimise the variations in outcomes, towards zero, to increase predictability. With predictable outcomes, it is easier to answer the question 'how can we now make these results predictably *better*?'.

Improved control is achieved by understanding and developing predictable processes. For example, if we are recovering a population of a rare species, we develop processes where reproduction and survival of juveniles into productive adulthood are achieved and, thereafter, consistently achieved over time. This is enabled by learning and using innovation and creativity to adapt procedures with the demands of work. This requires an understanding of results over time and having insight into what affects success and why things go wrong. With the Mauritius kestrel (*Falco punctatus*) as one example, many years were spent learning, often from mistakes, how to successfully breed (and then accelerate breeding) and fledge kestrels and enable survival in the wild (Jones et al. 1995). Over time, a predictable process led to the exponential recovery of the kestrel population.

As an effective leader you need to get closer to the work by understanding key measures of performance and how they relate to what the processes of work are actually delivering. You then need to understand those processes, how effective they are, how they link the activities undertaken and the resources used over time. For many managers, this is a completely new set of skills which need to be acquired and include:

- being able to 'see' process performance,
- understanding patterns of improvement, and
- managing methods for innovation and testing.

Those disciplines of leadership are addressed in later chapters (Chapters 6, 8, 10, and 11) and can be applied to a whole range of activities: captive breeding, fundraising, anti-poaching patrols, replanting regimes, or any other area of work you might consider worth the attention.

### **Blame, coercion, and self-fulfilling management**

When things go wrong, a usual reaction is to seek the person or people who caused the problems and hold them accountable. This usually translates into direct blame by the manager towards the staff member or between peers. This situation is so prevalent, and occurs so often, and the behaviour is so ingrained and automatic that we have a term for it: ‘blame culture’.

Not many people would consider that they endorse a blame culture – it is unattractive and negative. However, a leader with a controlling ‘Theory X’ mentality (McGregor 1960) would expect to have to supervise, blame, and discipline people on the assumption that people are lazy and uncommitted.

#### ***The problem with blame***

A Theory X mindset considers that apportioning blame is a necessary part of discipline and setting expectations on staff. Similarly, coercion is considered by some to be the only way to get people to do something. However, that is not the case, and coercion is damaging and at best provides only short-term benefits (Herzberg 1968). Furthermore, where a leader blames team members for problems, errors, and so on, each of those team members will also get into a mindset of blaming each other. Teams end up blaming other teams for problems that occur and conflict follows. Worse than that, where a team (or person) makes an error, they may attempt to deflect it onto another person or team.

Worse still, people working in fear of blame may end up hiding errors or problems, so that they do not get blamed. A suppressed problem or error will fester, or a failure will be hidden, and learning opportunities are lost. In general, people will avoid responsibilities, which is a self-fulfilling prophecy for the Theory X manager! The only direction for performance is downward.

#### ***Towards a solution to blame and coercion***

Deming (1982) is quite clear on the need to *eliminate fear*. Anyone who considers fear to be a legitimate motivator at work needs to seriously explore the psychology of motivation more deeply (see Chapter 7). Fear is based on an extrinsic motivation (from outside factors). The motivation expert Frederick Herzberg (1968) describes people’s response to this as ‘Movement, not Motivation’. With fear people move, but they are not motivated to move. Rather than drawing upon the inner energy and creativity of a person, fear drives people to do what they can to avoid the fear (or the sanctions that they fear). Avoidance and avoidant behaviour are important consequences, since people are driven away from work to focus upon other issues to eliminate the fear; essentially avoidance is a problem caused by a leader’s bad behaviour. Deming (1994) states clearly that leaders should ‘drive out fear’. This is not an abstract concept nor should it be minimised; it is an especially acute and real problem for those people working in fear of their manager. I have witnessed this personally in colleagues; it is ugly, creates a bad work culture, causes ineffective work behaviours, errors and poor performance (for some employees it can be traumatic or depressing). To eliminate fear, as a leader you need to have a clear mindset: *reject the use of fear as a leadership strategy* (let’s be frank: some leaders *value* using fear to motivate high performance in people, others use it to gain respect from the workforce: yet it does neither). Second, *you must eliminate blame*.

Eliminating blame starts by understanding that most problems and performance issues arise from the design of the work system and NOT individual people (Coppin & Barratt 2002). This means we need to focus on work (i.e. discuss actual problems and improvements) and NOT people (i.e. don't use blame and fear). One easy way to practise this is when faced with bad performance, whereby what you say to people changes from 'what have you done?' to 'what do we understand has happened here?'. A second thing is to discourage others from blaming each other. A third is to get people to focus on solutions. These approaches will be discussed in later chapters (Chapters 5–10).

### **Lying and concealment, fake engagement, and fake consultation**

Most people are likely to consider lying and concealment of information as being approaches so obviously negative that no one with any sense of credibility would consider undertaking this kind of activity in work. Sadly, in the real world of work, ambition, and power politics, in many organisations this type of dysfunctional behaviour does occur.

#### ***The problem with lying and fakery***

If I am at my most sympathetic, lying and fakery by leaders is driven by severe lack of confidence or fear in the individual concerned. However, it is usually a function of narcissism or even sociopathic tendencies (including not caring what is truth or not, nor its effect on others). Whatever the motivation behind lying, it is the impact of this type of negative behaviour which is most important to understand. With that understanding we also need to recognise that *insincere efforts* are also a form of lying, and *insincerity* is part of the same problem (consider the importance of integrity and 'what we say and what we do' covered in Chapter 1).

An easy trap to fall into is one of fake engagement and fake consultation. This is where the leader seeks to hear the views of the team (or partners and stakeholder groups) and carefully sets up a process for this to happen, such as running town hall meetings, focus groups, staff consultations, or a survey but then simply ignores the findings. In this instance, the outward demonstration of running the engagement, yet still not utilising the information provided in people's feedback is not 'clever' but actually amplifies the negative impact of the fakery. The damage caused by this deceitful action is fourfold: it wastes other people's time and resources, the leader loses the value of the insights provided by others, most people will realise that their suggestions are ignored and will be less willing to contribute in future, and finally the integrity of the leader will be questioned. Even a narcissistic leader should be concerned by at least one of these problems!

If you think this type of fake consultation is mythical, it is not. I am relaying an exact example which I witnessed in a workplace, led at a strategic level in a large organisation by a senior leader. Thankfully, they left the organisation long before I did.

#### ***Towards a solution to 'faking it'***

'Do not lie' is an obvious first principle. However, in some circumstances withholding information *is* required. If you have to keep things confidential (such as upcoming job losses or a failed funding bid), then simply say "I am not authorised to give you any more information".

A second principle is this – *only consult with people if you are truly seeking information*. If you do not have the time, or resources or do not want their opinion, then say so, with dignity and respect. This is called 'straight talking', and you have to develop broad-enough shoulders

to take the consequences. If you can take the flak and stick to your personal values and integrity when doing that, then people will respect that. If you lie or deceive you will not.

A second principle involves longer-term steps, to *establish a working team that is responsible and capable to manage information and make decisions themselves*. This makes lies valueless (because everyone needs to know what is really going on) and makes consultation largely irrelevant (except perhaps on formal issues like recruitment of staff or redundancies) since we are already talking to each other. This type of team development cannot be achieved overnight, but Chapter 7 provides insights into how to develop these capabilities within your team or multiple teams. Establishing and maintaining core values and behaviours with your team is a fundamental leadership process, and we will examine this in the Chapter 7 discussion of team building. You can use team values (agreed with the team members) to eliminate blame and fear and to encourage openness and support. Thereafter, it is down to the leader to ‘walk the talk’ and actually do the things they say they want seen to be done, in word or deed.

### **Illusions of strategic and visionary leadership**

Leadership is often described as a ‘strategic role’, and the importance of visionary leadership is often discussed in conservation circles (Bruyere 2015; Webb et al. 2022). This perspective is founded upon the expectation that leaders have a ‘big picture’ view of their organisation, thinking out and beyond the organisation itself and forward in time from the present. Both of these aspects are important and necessary. The downside is that focusing on outside and the future can cause a distance from the realities of today and the capabilities and current constraints of the organisation.

#### ***The problem with the visionary***

This type of distant leadership has been described by John MacDonald as ‘Chateaux Management’ (MacDonald 1998), reminiscent of the First World War generals who conducted the affairs of war many miles from the desolate conditions of the front line, giving orders to send troops on futile advances, with inappropriate commitment or methods, across treacherous landscapes at horrendous loss of life. The generals carried no understanding of the harsh realities of the front-line battlefield. While we like to think modern managers have got over this problem, it is still seen on an almost daily basis. Even the most modern ‘strategic leader’ can suffer the same fate and, as a consequence, set expectations, which their team fails to understand, or resents, or finds impossible to implement.

Whilst having vision of what your organisation, project, or team can achieve in the future is a good thing, being the visionary leader is less helpful. If a leader assumes that they solely have the vision, and that their vision is the one which is valued by others, they are in for problems.

#### ***Towards a solution for the ‘visionary leader’***

The quality of a strategy (or a vision) is determined by the information it is based upon. The quality of the information will be a function of the people from whom you collect it. Make sure you ask people in your organisation their views of purpose, vision, strategy, and goals. Seek their views and also make an effort to see what they do. Attend the places where they work in the field, or in the town hall, or up in the forest canopy, so that you understand the issues.

In addition, the leader needs to speak to relevant stakeholders, communities, suppliers, and partners to understand their perspectives. Insightful leaders will bring their own elements into



this sense of vision for the organisation, but there is no point simply driving through your vision. *A vision needs to inspire people, and also engage them* (by which we mean their commitment to be part of it), and that commitment will arise only if they feel they have had a part in developing it. After discussions have taken place (to collect views, opinions, insights, and other data), you must then involve people in building a shared strategic view. Vision building is a specific, deliberate leadership process involving data collection, engagement, and communication.

### **False hope and lack of reality**

Leaders should be aware of the influence that they have just by being in a position of authority. The way they act and what they place value upon will influence the attitudes of their staff. A sense of optimism or negativity will impact upon the team, whether the leader intends it or not. The same is true for the leader's vision, by which I mean the aspirations and dreams that are explicitly shared with the team. If these messages happen to be supported by a personal charisma that engages the team, then that team will 'buy in' to the idea and support the effort. The downside of this is when the vision or expectations are unrealistic.

### ***The problem with lack of reality***

An unrealistic (or potentially damaging), yet compelling vision, will obviously cause trouble.

Leaders are people who believe so passionately that they can seduce other people into sharing their dream.

— Warren Bennis (Bennis & Biederman 1997)

A vision that remains unfulfilled (if it is unrealistic) will generate resentment or disillusionment amongst staff. At worst, it will create unrealistic expectations in followers. Followers could make poor judgements about what is feasible or not, causing waste, failure, and chaos. Hope needs to be translated into achievable actions and results, otherwise it is just a pipe dream.

The key issue is how leaders frame their messages (Ogden 2016), but more important, I suggest is how the message translates into action. We need to move beyond a debate around "good science, straight talk, and honest dialogue" (Patten & Smith-Patten 2011) and "realism based on good science with a rejuvenated sense of purpose and aspiration" (Swaigood & Sheppard 2011), as helpful as those attitudes and considerations of psychology might be.

We need to develop further and move into a leadership stance of good science, honest dialogue, and *purposeful action*. Psychology is after all about *behaviour* not just mental states.

### ***Towards a solution for false reality***

A sense of reality is one of the most important traits in any leader (Coppin & Barratt 2002; Black 2019, 2021), although no one can claim to be completely objective. The challenge for a leader is to be open-minded enough to see the constraints and implications which we would otherwise prefer to ignore. This includes an ability to seek feedback if the relevance or success of an idea is not clear to oneself. Reality might not be absolute (Lewis 1932), since people have different perspectives, but it is not entirely subjective. Sharing perspectives and listening to alternative viewpoints are part of building an understanding of wider reality. Another element is using available data to tell you what is going on. This includes an ability to identify the problems that can be addressed. Optimism is important, but it must be focused on the purpose of the team, why it exists, and what it aims to achieve.

This is why having the input of many stakeholders when building vision, devising goals, and making key decisions is important. A broader perspective provided by others will enable a more realistic view of the way ahead. That is not to say we should avoid being ambitious, since ambition is a critical component in building momentum for our programmes and projects. We simply need to temper ambition with reality. Similarly, it is not to say we should always share decisions, since some will have to fall solely on our lap as our own responsibility, but that does not prevent us from consulting others to inform what we consider when we personally make a decision (see later Chapter 10 and Chapter 11 for the range of different decision-making approaches and strategies).

The best leaders know how to describe what they hope for because they have a clear view of what is feasible in the short term and can translate that into their purpose, priorities, decisions, and actions. Also, they communicate in ways which resonate with the needs, expectations, and hopes of the people that they work alongside. I label this mindset as being the ‘thinking-feeling-doing leader’ (remember the balance of head, heart, and guts discussed in Chapter 1). It requires self-awareness, and the balancing and adapting of one’s approach to context, and continually reflecting on purpose (asking yourself and others: are we doing the right thing?).

### **First steps in leadership – avoiding major pitfalls**

The previously suggested solutions introduce some of the ideas and approaches covered in this book. Clearly, the rest of this book is aiming to provide you with insights, methods, and mental skills to avoid the risk of bad leadership. The practices advocated in each chapter aim to assist you to install a highly effective leadership approach which will enable you to drive effective conservation of species, ecosystems, and biodiversity.

As a first step in reflecting on previous sections in this chapter (concerning negative models of leadership), consider the following issues as you develop your own leadership mindset. You will see that there are references in each topic to later chapters where the issues are addressed. The intention of this book is that your progression through topics will help you to develop step by step your own understanding, the development of your personal leadership ‘ethos’, and establishment of a clear sense of how you can be a successful leader in wildlife conservation (Chapter 12).

#### ***Take some steps in humility***

A humble person is not downtrodden nor are they a doormat. Instead, a humble person understands that they do not have all the answers, they are open to the world around them, but they also have strong sense of value and self-worth (Schein & Schein 2018). To act with humility is totally different from being humiliated! It is very difficult to humiliate a humble person! The strength that comes from being a humble leader is a willingness to keep learning to remain adaptive in a changing world. You draw people together to work on the issues at hand. This means that you need to draw on new sources of power and influence (see Chapter 3). Essentially, it is a sense of reality.

In acting with humility, you are a more dignified leader operating with integrity, which is a position of strength. Your message is about what is required, not about you. A leader who operates with dignity is unlikely to be considered ‘weak’. The important aspect of humility is that you seek out solutions beyond yourself. This leads you and your team to explore the real issues in the system (Deming 1994), namely the conservation work, ecosystem, science, species needs, and threats rather than basing your ideas upon assumption and opinions (Black et al. 2011). Humility drives you to encourage evidence-based practice and data-informed improvements. You become better at asking questions that will provide useful answers.

***Focus on working on areas of influence rather than trying to impose control***

Stephen Covey, the popular and influential management writer and practitioner of the 1980s and 1990s, was particularly interested in our personal effectiveness, especially as leaders. He advises people to consider all of their concerns in life (the things spinning in one's head) and divide them into things within our area of concern and things within our areas of influence (Covey 1989). His suggestion is to focus more on things we can influence. In my training sessions I refer to my colleague John Barratt's model for making choices and influencing outcomes, the 'control-influence-no control' continuum (Coppin & Barratt 2002). Influence is important because when it comes to getting conservation work done, we have to rely on others, very rarely can we do it ourselves. We need to be in a position to influence how they work remotely from us (see Chapter 4).

Conservation is the business of change, whether improving situations for species, recovering habitats and landscapes, introducing sustainable practices and behaviours in people, or removing threats and degradation (Chapter 10). This means that we have to make our approaches influential for achieving these changes. To do this in conservation, surprisingly, does not always involve projects (Chapter 11).

Indeed, projects can be some of the worst methods for achieving change (Seddon 2003). For example, addressing behaviour change in stakeholders such as hunters or landowners is wholly unsuited to project management, since it requires a process of relationship building and establishing trust (rather than, e.g. running it as an education project or a sales exercise). Similarly, engaging the support of fishers to collect data and change techniques to support coastal marine recovery (e.g. seen in the Seychelles, Madagascar, and Comoros) requires long-term relationship building, development of understanding, and engagement in a commitment which aligns with their needs for a sustainable economic future (Figure 2.1); this cannot be achieved by simply delivering an education programme which has been less successful in marine programmes in coastal fishing communities, for example in Peru.



**Figure 2.1** Newly protected coastal marine reserves in Comoros are now being managed cooperatively by local octopus fishers, all local women, and stocks have increased through actively managed no-take seasons.

*Source:* Photo credit: Dahari Comoros

The nature of this type of work means that we have to devise ways of working that involve more than just imposing solutions but instead a focus on enabling the evolution of change. These approaches to change management are investigated in depth in Chapter 11.

### ***Avoid blame and eliminate fear by seeking knowledge***

To eliminate blame you need to adopt an explicit ‘no blame culture’. Choosing to avoid placing blame is a key value in your leadership approach. Replace ‘seek out who to blame for failure’ with ‘seek to understand why problems have occurred’. This requires a mental shift to focus on the work, not the people (see Chapter 3). If a failure or problem occurs, get alongside people who are doing the work and involve them in analysing the issue and how it could be done better. This also involves persuading other people not to focus on blame (or a feeling of being blamed) as much as it is about you having the same mindset as their leader. At a fundamental level, assigning blame is a futile and self-defeating exercise that has little relevance to an understanding of performance (Deming 1982), as is demonstrated by a knowledge of variation in systems (Chapter 6). It is far more important that your team seeks knowledge, to understand what is actually happening (Chapter 5). The notion of psychological safety (Walters & Diab 2016) and its importance in conservation work in enabling people to innovate, raise questions and concerns about emerging biodiversity issues, and seek improvements is only now beginning to be properly understood in conservation organisations (Loffeld et al. 2022).

### ***Get to know people***

At the very simplest level, even getting to know your staff needs to be taken seriously and not ‘faked’. I have personally attended ‘get-to-know-you sessions’ led by a manager who instigated them over six months *after* starting in their role! They had already been working for months in an office adjacent to all of the offices of their staff. It would have been better for that leader to drop into the office a couple of times a week to say ‘hello’ from day 1 in the role. Treating people with dignity is fundamental for good leadership (Chapter 7).

A leader’s relationships with people in the team (or wider organisation) is important and can be best summarised as building ‘Mutuality’ (Coppin & Barratt 2002). A mutual relationship involves development of trust, being attuned with each other, clarity of shared expectations, a win-win mentality, provision of direction, coaching and support, recognition and appreciation, and an overall interdependence in the relationship. Clearly, this develops over time and adapts to context and team members, but its development is paramount. It is the core of human cooperative effort.

If you are someone who finds having discussions with the team as a somewhat difficult exercise, then practise getting to know people. Saying ‘hello’ and smiling is a good start. Learning people’s names is vital. Asking them about their job, the work, how things are going is next. These things might seem obvious and trivial, but they can easily be forgotten in a job when funding applications, management reporting, budget development, and strategic planning workshops need to be undertaken.

### ***Purpose is the start point for any leader, not vision***

The most important aspect to establish for your project, your team, your organisation is the purpose of your project. All leaders, knowingly or not, work in a system. For example, an ecosystem is clearly a system, but so is a forest, a protected area, a species recovery project, a village, or an NGO (Chapter 8). A system is defined by its purpose (Deming 1982), namely its enduring reason to exist. Purpose should be the reference point for decisions, strategy, and day-to-day

work (does it meet our purpose?). In contrast, a vision is a picture of where we want things to be (or to be like) in the future.

Aside from avoiding the ego-driven notion that you are the sole person with vision for your organisation or project, there is a practical first step needed before you start vision-building. The best models of leadership focus on understanding the correct “purpose” of that system (Deming 1982) and how that influences the way people and work are managed (Scholtes 1998; Game et al. 2014). The purpose of the system is fundamental to the design of the system – its elements, activities, and resources. For example, priorities for an offshore island reserve are different to those for a wildlife corridor. A system which is purposed to include human communities in the landscape is different to one purposed to exclude human use. Only once you have a clear purpose, and you have the team and key stakeholders who support of it, can you develop a meaningful vision of what you want to achieve (Chapter 3).

Thereafter, the point of any vision, and by that, I mean: a view of what the future should look like (whether outcomes, results, context, achievements, cultural shift, or a combination of all these things), is that the vision is shared by the team and relevant to other stakeholders. The only way to achieve this is to share the task of vision building with the wider group of people (see Chapter 11). If a leader fails to do this, the vision may not be realistic, it may not be inspiring, it may simply seem like ‘the leader knows best’. It will not encourage others to follow.

### ***Be ready to engage with the outside world***

Leadership in conservation is not just about you and your team. You need to engage with the wider world. This will enable you to mature as a leader and to gain a broader perspective (see Chapter 1). This might mean engaging with stakeholders or partners with whom you do not see eye to eye, and this might seem risky. A key trait is to be ready to listen and to get their perspective, which we will explore further in Chapter 9.

### **Benefits of avoiding poor leadership**

Many of these negative aspects of leadership (ego, control, blame, fakery, ‘being visionary’, lack of reality) are actually *valued* by protagonists who use them (i.e. poor leaders). Indeed, poor leaders often overtly value these negative traits as key ingredients or secrets of success (“I have charisma”, “I have my finger on everything”, “I don’t suffer fools gladly”, “people are my most important asset”, “I am a visionary” “nothing happens without me knowing about it”). However, these people are missing the negative effects of such behaviour and the loss of followership that occurs.

The beauty of eliminating each of these frankly pathological conditions (or deadly sins of leadership) is that there is an instant beneficial effect once they are removed. By removing one problem you get a different response from people, so your leadership momentum is increased, because people become more proactive, little by little. The horsepower of the team is increased because there are more horses (people) contributing, not just all the work going through you.

If a leader ceases to lie and starts to share information frankly and with humility, they will start to build trust in others. If a leader shows a sense of reality, people will start to share ideas or information which may be uncomfortable but important to know. If a leader loosens control, people will innovate, they will find better ways to use resources. If a leader suppresses their ego, people will share problems and suggest areas for improvement. If a leader can stop blaming people, those people will share difficulties or errors, or faulty methods and will seek improvements if problems occur or results are declining.

By eliminating the negatives you can change, over time, the ‘culture’ of your team. The culture is the team’s norms of behaviour (what people tend to do automatically) and

the ways of thinking in the people who work around you (their assumptions and mental disciplines).

If you start to achieve this in your team, you are encouraging followership. You have started to lead.

### **Case Box 2 Clear purpose and sense of reality: lessons from a species lost to extinction**

A focus on the wrong things and its effect on a species is most dramatically illustrated in the fate of the po'ouli (*Melamprosops phaeosoma*), an endemic and taxonomically unique honeycreeper in Maui (Figure 2.2). The bird was entirely unknown (even to the Polynesian community) until its discovery in 1973. After its discovery, unsurprisingly, the species was studied intensively (as practically as possible as it lived in a remote and difficult-to-access location), yet critical questions around declining population trends and threats were ignored. This seems remarkable in the light of the fact that never more than a handful of individual po'ouli were ever observed (Black & Groombridge 2010) with population estimates indicating a decline from 76 birds per square kilometre in 1975 to eight birds per square kilometre in 1985 (Groombridge et al. 2004). The Hanawi NAR reserve was established in 1986, but there was no direct protection of the species until the 1990s, when fencing was constructed to exclude feral pigs, a potential predator of nestlings and eggs. Little effort was directed at the species' biology and ecology of po'ouli, so there was little understanding of population size and clarity around threats (Black & Groombridge 2010). In the 1980s, a pair was observed laying multiple eggs, but only a single fledgling was raised despite two nesting attempts and the surviving chick eventually died, most likely due to poor weather causing abandonment of the nest (Powell 2008). These observations suggest that the wet cloud forest zone to which the species had become restricted may not have been its preferred habitat. Not until 2002 was a translocation planned and attempted, to create a pair from by then the final three remaining individuals, which ultimately, despite best efforts, failed (Groombridge et al. 2004). Despite some follow-up effort, the po'ouli is now presumed to be extinct.

A number of lessons can be drawn from this po'ouli case study:

- Understand the species to confirm the conservation purpose: how many, status (decline/stable?), habitat, threat.
- Define the initial purpose of the scientific work: to protect, to recover, to simply observe?
- Establish a plan to address the purpose.
- Collect data and design and implement actions (are we doing things right?).
- Review against purpose and check if purpose is correct (are we doing the right things?).

The species was unknown, so a scientific study was undertaken, but although the population was clearly low in number, no work addressed its recovery, even when later counts indicated decline. The purpose of the programme was never properly defined. No knowledge related to its recovery (e.g. breeding biology) or actions (e.g. taking a nest for observation or a partial clutch for hand rearing) undertaken to improve the species' situation. Effort was unfocused (poorly purposed) until sadly, it was too late.

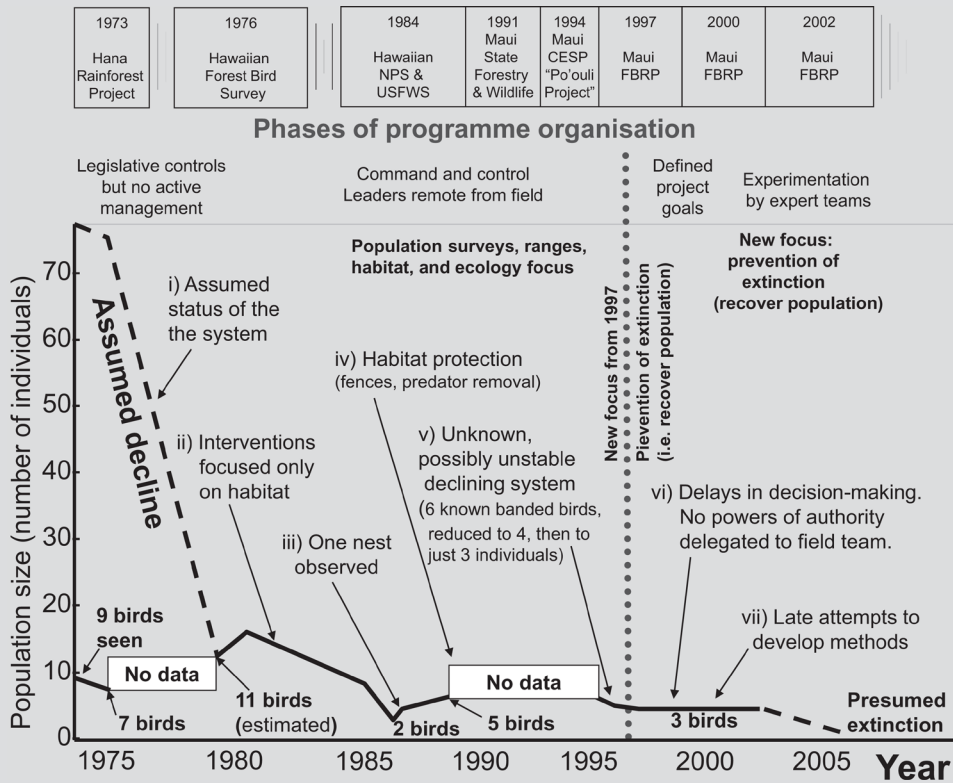


Figure 2.2 Roadmap of the population decline of the po'ouli (*Melamprosops phaeosoma*) showing interventions (annotations) and phases of management which oversaw the work (top boxes).

## Chapter reflection – a first step to effective leadership is to reject bad leadership ideas

Consider the following issues in shaping and developing your leadership approach:

- Ego-driven behaviour is self-defeating and discourages people from assisting you.
- Avoid game-playing management which assumes humans are motivated by carrot and stick.
- Leadership is about building effective relationships; get to know people with whom you work.
- Avoid a blame culture as it only stifles improvement, innovation, and high performance.
- A common sense of purpose is the driving force of the team.
- Vision is not the sole realm of the leader, but one shared, discussed, and built with others.

**Exercise 2 – experiential reflection on impacts of bad leadership**

Reflect on your own leadership experiences and, in particular, your experience of bad leadership.

- (1) What examples of bad leadership have you encountered? Aim to identify poor approaches and the negative consequences and negative impacts. Is it a question of style (i.e. “I did not like how they did X) or is it about negative impact (this bad thing happened as a result)?
- (2) Consider circumstances when you felt compelled to take a lead – write down the example.
- (3) On what occasions have you taken a lead (or been a leader) when your approach back-fired? Did you fall into any ‘bearpits’ mentioned in this chapter (egocentrism, controlling, blame culture, lying, fake consultation, distance from the real work, false hope).
- (4) What thoughts come to mind in how you can become a ‘thinking-feeling-doing leader’?
- (5) Consider the po’ouli case study (CASE BOX 2) – what would you do in those circumstances?

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### 3 Understanding new perspectives in conservation leadership

#### Personal Perspectives – Introduction

If we are ready to dispense with old notions of leadership, relying on hierarchy and power, and no longer insist that our own intellect will be a suitable source of solutions in a complex world of ‘wicked’ problems, then we also need to be ready to replace those notions with **useful** leadership methods and concepts. We need to understand how people work (psychology), how the world and the organisations in it work (systems theory), how our understanding of what is happening develops (theory of knowledge), and how data that informs our decisions and actions actually behaves (theory of variation). Those areas of learning are part of the long-term leadership journey.

That said, reflecting on the Seven Levels of Leadership discussed in Chapter 1, we cannot expect to absorb everything in one go. Leadership learning requires an accumulation of knowledge, insight, experience, experimentation, internalisation, open-mindedness, and reflection. Alongside this, we develop new perspectives and values. You do not pass a test and become a leader. You *become* a leader, and thereafter continue to learn how to become a leader, and over time a better one at that. If this learning process is not followed consciously, then that learning may not occur at all.

This chapter aims to open the door on several new concepts which will start your journey into new and more effective approaches to leadership. The concepts will remain relevant as you mature as a leader and will support you as you apply other approaches in new contexts to enable you to operate with increasing effectiveness. The chapter presents behaviours for you to consider and to test in your own role. Unlike poor leadership habits dispensed with in Chapter 2, these new areas of capability will remain relevant in your future professional career. Continued relevance is a good marker of their validity.

Effective leadership behaviours do not become obsolete as you develop your leadership capability over time. Effective leadership behaviours do not become self-defeating. They are behaviours that, if effective now, will not become a barrier to future effective leadership. These approaches are not fads, or trends in management, but solid principles. As you open yourself to learning new approaches, have confidence that they will continue to assist you as you develop as a leader.

#### Sources of power

Traditionally, leadership is associated with power (French et al. 1959), although it is now well-recognised that there are different types and sources of power which can be applied by

individuals in the ways that they shape other people and their work.

**Legitimate power** is derived from a position in an agreed hierarchy, which in the work environment usually means through formal roles (Raven 1958). This normally relates to levels in an organisation chart and also the documented responsibilities and levels of authority described in job descriptions. Whilst useful, legitimate power is a lower level of power, most called upon by people establishing their leadership status (a 'Level 1' leader; see Chapter 1). By being reliant on hierarchical power, the leader will have to refer up and down reporting lines (chains of command) to get decisions made and authority to get things done, which can slow down progress, stifle innovation, and add cost (Seddon 2003). Legitimate power is also difficult to establish external to one's own organisation so has limited effectiveness in partnerships or working with external communities.

**Financial power** (and authority) can be an important factor as highlighted in Mattson et al.'s (2011) discussion of the role power within complex multi-agency projects in conservation, where money is one important aspect. Sometimes, the power balance can be mismatched, with the funding holder wielding decision-making authority over and above its expertise or knowledge of the project or how resources should be allocated in practice. In these instances, clear and effective governance structures including decision-making authority (e.g. within agreed budgets) are important (Black 2018). Allocation of resources between partner organisations is key, and suitable governance and decision-making around finances need to be formalised (see Chapter 11 on governance). This will not happen by magic. It is the role of the leader to put these aspects of governance in place.

**Coercive power** is the ability of the leader to apply punishment, which may be in the form of verbal reprimand or a formal disciplinary procedure (including investigation interviews). Particularly unacceptable coercion includes shouting (which aims to cause discomfort or feelings of inferiority) and at worst physical punishment. These direct physical embodiments of coercion do sadly occur (unpleasant as that may seem). Coercion that is more likely to be encountered in the work setting is more indirect, such as giving undesirable jobs to people as a form of punishment (Faiz 2013). However, other psychological coercion is also not uncommon, including passive-aggressive behaviour, deliberate ignoring of specific people, and so on. Clearly, anyone relying on this type of power base needs to be careful so as not to alienate other people, breach company policy, or even break the law. It is, essentially a 'Theory X' approach to working with people, based on the incorrect assumption that people do not really want to work (McGregor 1960). Coercion generates a self-fulfilling prophecy since followers will tend towards only working when being coerced and thereby will not be proactive, creative, or ambitious in themselves (Eden 1992).

**Reward power** is the opposite of coercive power and is based on a person's ability to offer rewards, whether pay levels, (including actual payment) or being able to offer other forms of recognition, whether verbal praise or in terms of prizes, publicity, or sharing good news with other influential people. On the face of it, reward power seems legitimate, positive and helpful; however, the principles and values which a leader holds will influence the helpfulness of utilising reward power. For example, if a leader assumes people are uncreative, they may consider offering people a reward (or incentive) for new ideas; however, this approach fails to generate creativity in people (Scholtes 1998). In essence, the leader is wanting people to comply with their expectations in a reciprocal way (you do this, then I will give you that; do this for me, and I will do that) in a transactional sense (Tourish 2008). Engaging compliance is useful but limits followers to one-way contribution (following), and the leader should be aware of this whenever applying reward strategies. Essentially, the leader needs to consider whether people are chasing the reward itself or pursuing the purpose of the work that you want them to carry out on your

behalf. Time after time, reward systems pull people away from their core purpose (Deming 1982, 1994; Seddon 2003) so that people focus either on not ‘failing’ or alternatively chasing just the reward itself (instead of focusing on the inherent value of the purpose of the work).

**Referent power** concerns the personal characteristics of the leader and followers’ admiration or respect for that individual (Kudisch et al. 1995). Followers may also identify themselves with the leader in some way and decide to do things that they think the leader would want them to do. A leader with a strong ethos can encourage referential associations by followers, for example replicating their value systems when relating to external communities, or when applying scientific principles to work or decision-making. That said, the leader must also always maintain their own humility to identify when people are unhelpfully copying the mantras or habits which the leader themselves has established. This can be tested by the leader asking followers in the team from time to time, ‘why do you think I am asking you to do this?’ and then establishing whether followership comes from understanding or merely through ill-considered imitation.

**Expertise** is clearly important in the conservation sector, whether in terms of technical field skills, biological or veterinary knowledge, cultural knowledge or social scientific skills. Depending on the context of work, all these technical areas of expertise or other skills sets are important. The power derived from expertise is driven by the superior knowledge or skill in the person holding that knowledge and ability (Raven 1992). From a leadership perspective, if the leader holds the expertise, they have some responsibility in passing on that expertise to the wider team (to make the work of the organisation sustainable in the long term). By observation, the best conservation leaders are those who have mentored others and encouraged the development of expertise within their team. More than this, a leader’s preparedness to give away expert power, by calling in other experts, is a significant capability (Black et al. 2011) as it indicates a willingness by the leader to have the organisation learn and increase its ‘power’ (based on knowledge and capability) above that of the individual leader themselves.

**Connection power** is derived from personal links with influential people (Hersey & Goldsmith 1980). This is important where we have stakeholders with permission-giving authority (such as governmental decision-makers) or people with access to resources (including funding bodies), people with public profile, those with access to expertise, or within organisations, those with hierarchical power. Sometimes, these links can be arbitrary such as through social connections or family, and others can be driven by a leader’s own reputation and effort to make connections. Personal networking is a useful competence in the toolbox of any leader. In conservation, this should not be limited to geographic proximity but involve wider outreach, including experts and practitioners in other fields.

**Information power** involves convincing others with logic (Raven 2008). In conservation, we are used to applying scientific data in decision-making (although it is worth recognising that some public campaigns are more inclined towards emotive appeal than data). As a practitioner community, the ways that conservation organisations are utilising data to get across the message of focus, urgency, priorities, decisions, and funding requirements is an area where new progress is being made, such as the IUCN key biodiversity areas (Eken et al. 2004), the ZSL EDGE species approach (Washington et al. 2015), and the Durrell Index (Young et al. 2014). Less priority and influence are placed on the use of current data (such as the capability of conservation processes or current population status identified in current patterns of data), and leaders need to consider how the logic of data is applied to steer other people’s efforts within conservation organisations (who currently tend to use a hierarchical setting of aspirational goals rather than real-time data). Conservation practitioners tend to value data-driven and evidence-based approaches, so devising sensible metrics which will help teams to identify success, failure, and opportunity for improvement are vital for helping them to improve their work. A key learning

point is that holding onto information (the traditional ‘knowledge is power’ maxim) is NOT helpful. Norbom and Lopez (2016) note that *information-sharing* may be the most important factor since this raises a leader’s standing with followers. This is important in conservation since scientific data is critical to work design, decision-making and planning, as well as evaluating progress or the success of outcomes (Black et al. 2013).

### ***Other practical sources power (personal behaviour)***

Overall, any one leader can draw upon one or more sources of power and utilise them at different times. Research has shown that in leadership, some sources of power are more effective than others. Norbom and Lopez (2016) provide support for expert, reward, coercive, legitimate, and connection power but not for information power. The idea that having information gives you power is counterproductive; a leader is much better off sharing information and encouraging collaboration.

Within conservation and environmental management literature specifically, Evans et al. (2015) highlight Grint’s (2010) typology of power and influence, highlighting generic factors of ‘person’ (behaviours, characteristics), ‘position’ (hierarchy, bureaucracy), ‘process’ (what leaders do), ‘results’ (resource use, sanctions, conflict resolution), and ‘purpose’ (direction and motivations). Other areas of practice conducted by leaders also have an influential effect on people around them. Four more specific dimensions of leadership practice are raised by Bengtson and Fan (1999) in relation to landscape conservation: land stewardship, ethics, collaboration, and scientifically informed decision-making. Mattson et al. (2011) discuss leadership in the complex American ‘Yellowstone to the Yukon’ multi-agency conservation programme and highlighted the importance of vision, learning, power (including money), problem-solving, and community engagement.

Whilst these elements appear as areas of practice, they actually reflect leaders’ chosen sources of power and influence, namely economic, social, information power, and so on. The important point is that effective leaders use these aspects consciously. They understand the power of being a budget holder and seek to use that influence wisely. They understand the power of engaging local communities and proactively take time and make the effort to build those relationships.

### **Influence versus control: a sense of reality**

We now understand, from modern studies of motivation psychology across many socio-demographic groups in regions of the developed and developing world, that people’s motivation at work is driven by a sense of autonomy, stretch (i.e. cognitive demand in the work), and belonging (Deci & Ryan 2000; Ryan & Deci 2000). The danger with any leader exercising power is that they focus too much on control and outcomes, thereby treating colleagues as a means to an end (Cable 2018) rather than a potentially autonomous, self-motivated resource.

My colleague John Barratt discusses the difference between control and influence in his collaborative book *Timeless Management* (Coppin & Barratt 2002). He considers that some people often consider situations as being either something we can address (something we can control) or something on which we have zero impact (where we see ourselves as powerless). For practitioners like Coppin and Barratt (2002) and Covey (1989), as leaders we must leave this ‘either/or’ mindset behind and move towards considering how we *influence* situations and other people. The reality is that we can influence things to some degree, and our measures of success should reflect this.

Influence is not an either/or but rather a sliding scale of impact. At the top end of this spectrum is high influence, nudging towards control. But in reality, after all, what do we *really*

control in our lives? What we eat? What our children eat? (probably not, in the latter case!). At the other end of the scale (i.e. low influence), a leader's impact may be very indirect and probably achieved through other people. The learning point is this: there are many areas of life and work in which we can exert influence, so the trick is to find out how we can achieve this to a greater extent and, therefore as leaders, shape the world around us.

### **Humility, service, integrity, and trust**

A leader who is prepared to influence, rather than expecting to be able to control, needs to engage a humbler approach to working with people. But how does 'humility' work in practice? As mentioned in Chapter 2, humility is not low self-esteem or servility nor is it weakness. Cable (2018) suggests that servant leadership is all about the leader having the humility, courage, and insight to admit that they can benefit from the expertise of others who have less power than them. This is demonstrated by the leader seeking out employees' ideas and identifying the unique contributions people can offer. This generates the culture of learning which we know is important in conservation organisations (Black et al. 2011).

The start point is preparedness on the part of you as leader to accept that you do not know everything nor have all the answers. This is actioned by a readiness to listen to others. This means giving people your full attention. It is also an outward passing on of responsibility and autonomy to more junior members of the team, getting them to think and act for themselves, develop ideas, innovate, and explore improvements. Humility starts with conversations (and listening) and ends with trusting others to get on with important work.

A further somewhat more difficult step is also required. A humble leader has the strength to listen to opposing ideas. This skill in listening involves not reacting to what is said but to absorb and use the information taken from what someone says to inform your wider view (J Copsey, personal communication). If a method is viewed by others as inappropriate, explore the reasons why; is there something YOU have not considered or is there something that THEY have not considered (and which you may not have communicated properly). None of these things are personal attacks, it is information. Accepting it as information requires you to be bigger than your ego, to bring in a rational sense of what you are hearing rather than being personally overcome by emotion or being solely steered by your self-identity. This ability to look at wider issues (in organisational design terms – how the system is working) gives leaders greater power and influence, not less. Even better, being able to encourage some level of dissonance in the team will generate more creative thinking and debate amongst staff which will energise the development of ideas and innovation (Black et al. 2011).

### **Purpose, vision, and values**

Plenty has been written about the importance of developing a vision for enabling a leader to take an organisation forward and improve its effectiveness. The idea of 'visionary leadership' has almost become a catchall or at the very least a prerequisite for 'effective leadership' and has become an accepted topic in any discussion on leadership. Although the ability to communicate a vision (i.e. a statement which describes and communicates aspirations and possibilities and direction) is important in a specific way, it is different to being a 'visionary leader'.

Observations of effective conservation organisations suggest that 'being visionary' is not necessarily important, but vision does have a discrete part to play (Black 2015). However, to suggest that vision is the centrepiece of an effective leader's toolkit is incorrect. Vision sits alongside a number of other elements, including mission, purpose, goals, objectives, values,

principles, ethos, strategy, critical success factors, KPIs, and so on. The leadership and management literature is not short of a technical term (or two), and we need to get familiar with some of these terms so that we can apply them (usefully) as tools in our organisations.

For simplicity, I encourage leaders to focus initially on three things – purpose, vision, and values.

### ***Purpose***

A purpose is the reason the team/project/organisation exists (a process and a role will also have a specific purpose). The purpose is long-lasting, essentially permanent, unchanging, and a reference point for the design of the organisation, including its goals, strategy, processes, roles, capabilities, decisions, and so on (Black 2015).

Sometimes, the purpose has a time limit attached to it, and in this case, some people like to use the word ‘mission’, for example ‘To put a man on the moon and return him safely by the end of this decade’. Once achieved, the team can either (i) establish a new mission or (ii) pack up and go home. However, the end point of the mission must be something tangible and meaningful. A mission that is curtailed because the money has run out is not a reason to pack up and go home (rather, if it is worthwhile, we should seek more money!).

At an organisational level it is, if anything, even more simple. The Durrell mission ‘Saving Species from Extinction’ is a good example (Young et al. 2014; [www.durrell.org](http://www.durrell.org)); it is clear, memorable, meaningful, enduring. It guides what they, as people in the organisation, do today, tomorrow, and in ten years’ time. It helps them to decide what work they do and what not to do. Will activity X help us to save species from extinction? If the answer is ‘no’, then people should not waste time doing it. This can be applied to the design of a species reintroduction, through to a decision to build a new café in the zoo.

In conservation, the trick with establishing your teams’ purpose or programme purpose (i.e. one which you set for a specific project within a larger organisation) is to identify a purpose that makes sense in the ecosystem of concern (including accounting for threats within that system). Purpose will define the system within which you work and the processes within that system.

By way of illustration, using an analogy suggested by Peter Scholtes (1998) which I will use several times, if you have an activity ‘cleaning a table’ we can picture the work, materials, methods, and skills for that activity. However, if we define the purpose as ‘cleaning a table to prepare it ready for surgery’, the methods, process, materials, and skills needed to carry out that purpose are much more clearly defined.

Clarity of purpose is fundamental. Consistency of purpose, meaning that everyone involved in the work is focused on the same common perspective, is absolutely vital. In contrast, if we find ourselves at ‘cross-purposes’, we will soon get ourselves in trouble. If we have different purposes, we will follow different goals, different methods, and seek different results. Long-time management guru Ed Deming (1982) could not be clearer about the central importance of purpose. He lists ‘Constancy of Purpose’ in the staff team as one of his key philosophies. A common purpose is vital for harmony, focus, and agreed rationale when planning, making decisions, or solving problems. Purpose defines how you spend your time. Purpose is the reason the team, the organisation, you as leader, exist.

### ***Vision***

A vision statement is a declaration of an intended future situation (or ‘future state’), and it describes, sometimes in detail what the organisation will achieve, what it will look like

(Coppin & Barratt 2002; Kouzes & Posner 2007). The reason for having a vision statement is to inspire people to commit to developing the organisation and its work to achieve that desired future. A dull vision statement will not inspire nor will one that is too unworldly. A vision statement has to be ambitious, and it needs to describe change. Most vision statements are written in the present tense, such as:

‘Our vision is to be an organization where . . .’,

or

‘The vision of this programme is to . . .’.

Many organisations spend a lot of time carefully crafting an eloquent vision statement. However, there are two specific requirements: (i) that the wording is clear, and the descriptions of the future are relatively unequivocal (ii) that the development of the vision includes input from representatives of all the people who need to be inspired by it (including stakeholders).

An important aspect of vision is that *there are many possible visions* – the skill of the leader and their team (and potentially other stakeholders) is to identify the one vision which best describes the shared future situation wanted by people (Black 2015). This is different from purpose since an organisation will have only one purpose, with little variation over time, but it may develop and redevelop its vision over time. A vision may last for five or ten years and be reviewed and changed as circumstances dictate.

One quirk of conservation is that we work with animal populations and landscapes which may take a long time to recover (trees, tortoises, climate effects). These extended timescales mean that in conservation we may be working with a vision of 25, 50, or even 100 years (Jones & Copsey 2018). For example, if we are replanting a forest, we need to envision what it will look like once the change is completed, and that may relate to 100 years’ time. This gives us a sense of reality and has practical implications, because the work we do in our career lifetime may be steps along the way. In the example of forest regeneration, the team may only deliver the careful sequential establishment of successional growth of some plant species and communities rather than the final establishment of mature forest itself (which would be the preserve of later generations – so how do we secure their support? This would also be part of the vision).

### **Values**

If an organisation (meaning its leaders) can explicitly state the values and behaviours that it wants to have within its teams, as adhered to by its people in their work and decisions, then writing these down is very useful (Black 2018). A list of stated and agreed values will provide a framework to challenge uncompliant behaviour. For these reasons, ‘values’ need to be developed carefully with consultation and consensus from the workforce rather than being imposed from above (compliance is not about ‘command-and-control’, we are instead seeking commitment).

The best organisations ensure that their values are known and understood by everyone. This enables individuals to challenge inappropriate behaviour in the safety of endorsement of that challenge from senior staff. From time to time, an organisation or teams within it can assess how they are collectively adhering (or not) to the values and whether their behaviour needs to be changed. Sometimes, by agreement, the values themselves need changing. Values will be specific to any organisation or team, but a number of general themes often come up which need to be explicitly stated, such as respect for colleagues, respect for external stakeholders (even if they do not agree with us), encouraging learning and improvement, basing decisions on science and data.



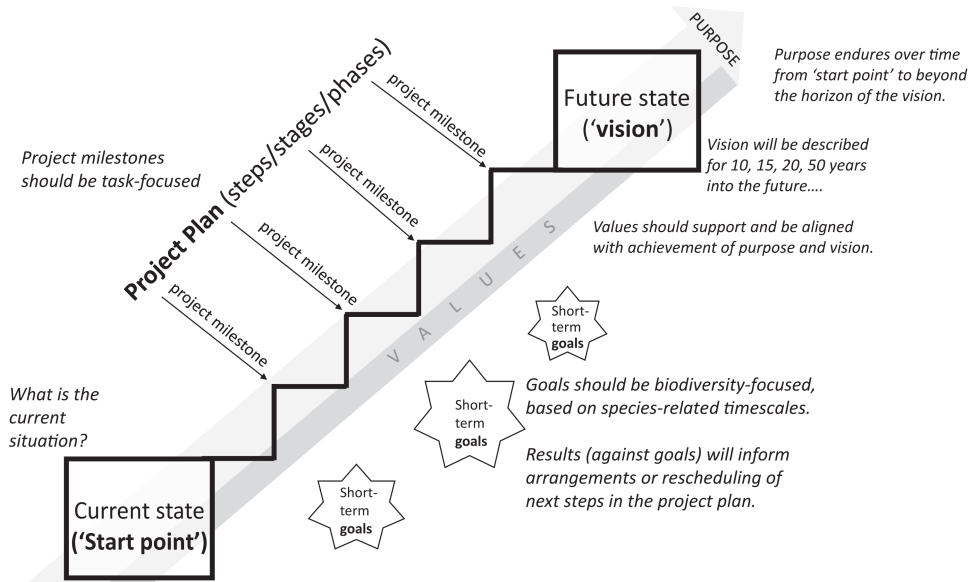


Figure 3.1 Elements in managing the progression of an organisation: 'The Change Model'.

### Putting it together

Overall, there needs to be consistency between purpose, vision, and values (see Figure 3.1), and this fits within the time constraints and project plans constructed for your programme. A sensible start point is to understand the start point itself! The start is the present state of the organisation and its wider context. Next, there is a need to establish clarity on what needs to be the focus (purpose), what needs to be changed (vision of the future), and how you are going to go about it (values) and through what tasks (project plan). It is vital that the perspectives provided by purpose, vision, and values are shared by people in the organisation and that people properly engage with these statements. Strong and capable leaders can accelerate the progression of a programme by engaging people to follow this clear and meaningful common direction.

### Strategic and operational leadership

One difficult aspect for leaders to develop is strategic thinking and how they relate strategic priorities with operational management (i.e. long-term direction vs. day-to-day or month-to-month activities). Business school training over many decades has brought plenty of sophistication to these considerations and with it some complications to the discussion. Many terms have become commonplace like mission, objectives, goals, critical success factors, KPIs, process measurements, loss functions and horizon scanning, and so on. These elements alone are complicated enough before we get to consider financial aspects of gearing, discounting, financial ratios, and so on.

To get to grips with the topic of strategy, the basic function of strategic management is to understand, in broad terms, what we should do operationally (day-to-day). Strategic understanding of the operational context is based upon two things – the wider world and the future. A strategic approach must be operationalised, so for example if we have a strategic approach to

acquisitions (e.g. purchase of land for protected areas, then that only means something if we can operationalise this) through the legal right to acquire land, funding, capacity to implement and so on). This gets difficult if we use the wrong disciplines for some of these aspects.

In general terms, any organisation has three *basic* strategic requirements (MacDonald 1998):

**Marketing strategy:** This will include a *funding strategy* in most conservation organisations, but since many also derive donations from the public (or even direct sales) the term ‘marketing’ is still relevant. For government-funded organisations, marketing is less pertinent, but it is still needed as within this discipline sits your *communications strategy*, which will always be important (aspects of social media, scientific dissemination, community communication, and so on fit within this). Other specific strategies within the umbrella of ‘marketing’ will be relevant depending on the organisation, such as donor relations strategies, PR strategies, brand strategies, and membership strategies.

**Financial strategy:** For example, financial management such as budgeting is a rear-view measurement method of strategy development. Even if we ‘forecast a budget’, the forecast element has virtually nothing to do with budgeting as a discipline. Future budgets are predictions based upon understanding of the past. Future financial management should be focused on a couple of questions:

- Will we have enough money (or will it run out)? This is addressed with cashflow planning.
- Do we have enough money assigned to the right activities (and costs). This is a budget.
- Can we continue to be a viable organisation. This is informed by the profit and loss account.

Then we have subsequent questions:

- Where is the money coming from (income forecasting and funding plans)?
- Do we need to replace equipment or assets (asset planning and capital expenditure budget)?

Organisations should have an asset register to understand the value and lifecycle of equipment and facilities. They should also understand their assets, reserves, and liabilities, through a balance sheet.

**Operational strategy:** This is an outline of the work that needs to be done. The best organisations have clearly defined core processes (conservation work including conservation planning, lobbying, ecological/species recovery processes, education work, community engagement, etc.) and support processes (HR, finance, purchasing, partnership management, data management/IT, maintenance and facilities management, marketing, media). Some organisations will have research strategies. Most organisations will operate through partnerships and other supplier agreements, so will need partnership strategy and/or supplier strategy within their operational strategy. Some organisations may have a geographical perspective to their operational work, such as which countries or regions they work in, or do not work in. Others may focus on particular taxa (e.g. reptiles not birds) or disciplines (community-based conservation, marine conservation, reforestation, species recovery).

Clearly, the elements of operational strategy must be coherent and mutually supportive. For example, a partnership strategy that is too rigid may constrain the ability for innovation in new areas of work where new external expertise is needed. Strategy must ensure that the organisation does not miss what is happening in its current context and any wider contexts.

## **Your organisational boundary – what is ‘in’ and what is ‘out’**

One of the critical aspects in understanding your organisation is knowing what is within the organisation and what is outside (Coppin & Barratt 2002). This is a strategic as well as operational perspective. If you understand your boundary, you can manage interactions across the boundary (e.g. agreements and procedures with suppliers), you can choose how permeable your boundary is (when to share information externally and when not), and how closer relationships like partnerships are defined where there are shared processes (such as budgeting on shared projects, decision-making, hiring shared staff, and so on). All these elements can be reviewed and changed. In fact, this is a necessary thing to do when external factors change. If new threats emerge, how do you respond? If there is a change of government in your focal country, how do you adapt your engagement processes to build new relationships?

You can also strategically decide what is ‘in’ your organisation – its responsibilities and work, and what is ‘out’ – and will be left to other organisations’ responsibilities and work. This view prevents ‘scope creep’ where your teams take on more and more work and lose focus on the core reason that they exist. Scope creep will overstretch your resources, probably waste time and money and will reduce your organisation’s ability to be effective. Depending on what you are leading this could affect a team, a project, or a whole organisation. Be careful in defining which work responsibilities you accept on behalf of your organisation and be careful about what you give away to others.

Sometimes, there are very good reasons to take on extra work. In a Durrell species recovery programme in Madagascar, a project was very successfully designed and implemented to rescue and recover a rediscovered duck, the Madagascar Pochard (*Aythya innotata*). The birds had retreated to a remote lake and had clung on in very small numbers (about 25 individuals) for decades in a remote and less-than-suitable habitat, unnoticed by science. When rediscovered, the programme made quick innovative attempts to recover the population, including captive breeding in particular. After analysing the difficulties which the species suffered even in its last lake refuge, Durrell and Birdlife International scientists worked to identify a suitable alternative release location (G. Young, personal communication). Once the new location was identified, it became clear that local people’s participation in changing agricultural techniques and use of the lake would be critical to recovery. This required a change in scope for the programme, so the project developed a community engagement element to the work, with new skills and knowledge needed within the team and new responsibilities and resources to be established on the ground. The scope of the project had changed, and the internal capabilities of the programme, and its measures of success, also needed to be adapted. This shift in scope occurs in many species and landscape programmes (Figure 3.2).

A final aspect of boundary is the geographical scope of the organisation. This will be understood in a strategic context in terms of location of work, sites, and so on. For larger organisations, it may be defined as the regions in which they conduct projects and programmes. It may also define whether the organisation works in terrestrial, aquatic or marine environments, or urban areas versus wilderness areas, or biodiversity hotspots, or islands, or tropical forests, or Spanish-speaking countries, or developing nations, and so on. Clearly, these geographic boundary choices are important as they inform the operational aspects of the programmes being undertaken and the types of staff, buildings and facilities, and partners that are engaged.

## **Adapting leadership to context – expecting variation in people and teams**

An important aspect to consider is that your leadership approach should be less about style (how you do things) and more about substance (what you say, what you do, your commitments),



*Figure 3.2* A community conservancy programme in Kenya has engaged in work with women from local villages, who, although not politically influential, can steer the commitment of families in support of sustainable grazing regimes. This type of work extends the skills needed in the programme team beyond species monitoring and development of grazing plans.

*Source:* Photo credit: Grace Ingram

including your priorities and how you allocate resources (Kouzes & Posner 2007). A focus on substance is important when understanding strategic context, but it is equally important when you consider personal behaviour and interpersonal context and the management of different teams. The ability to adapt your leadership approach will influence followership or at least meaningful followership. An important competence is to understand how to adapt according to context – adapting your message, your actions, commitments, priorities, and allocation of resources.

Recent trends in leadership writing tend to talk about ‘hybrid leadership’ (Gronn 2009), where they mean adapting style according to circumstances, culture, and so on. A deeper examination of leadership, and a mature consideration of levels of leadership competence, tells us that this type of adaptivity is inherent in the most effective and well-developed leaders (or ‘mature’ leaders, noting that this does not infer an age requirement for that moniker). The best leaders adapt according to the maturity of the team, and the development maturity of each team member (different in each case), relative to the tasks and processes required, and to the performance, constraints, and boundary of the organisation.

### *Situational leadership with individuals*

Blanchard and Hersey (Hersey & Blanchard 1969) recognised the different leadership styles (and here we mean ‘approach’) required in different encounters with individual employees.

They devised a now-famous ‘Situational Leadership’ model (Hersey et al. 1979), which characterised two dimensions of leadership behaviour: task behaviour and relationship behaviour that the leader provides to followers. The key principle that they identified was that no one style is optimal to use all the time. In fact, in some contexts one leadership style may be very successful, but in another context using the same approach will be a complete disaster.

Blanchard and Hersey’s work identified that the correct leadership style will *depend on the person* being led (the follower) *and the particular task* which that person is expected to undertake. The leader has to recognise the level of competence and commitment the person has for the given task, as this will enable the leader to understand the situation in terms of the ‘task’ and the ‘maturity’ of the follower (competence and commitment).

Leaders can call upon four categories of leadership styles, categorised into four behaviour types (Hersey et al. 1979); Directing, coaching, supporting, and delegating. Each leadership style would be relevant to different situations.

- Directive behaviours involve clearly telling people what to do, how, where, and when.
- Coaching behaviours include questioning, listening, giving feedback, facilitating, challenging.
- Supportive behaviours include listening, supporting, encouraging, and being present.
- Delegating behaviours involve giving authority, handing work over entirely with full trust.

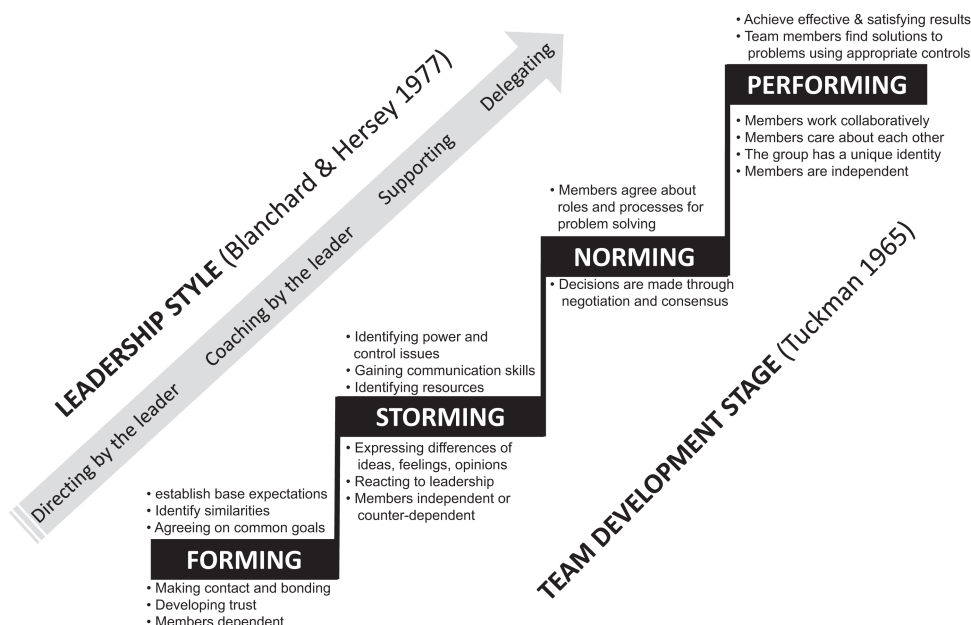
Good leaders identify each person’s competence in terms of professional development and personal motivations and then apply flexible leadership approaches to maximise the potential of their staff. A *directive* style involves close supervision of the work. *Coaching* is a highly interactive process with the employee taking on more responsibility for ideas, tested out with the leader’s input. *Supporting* involves the leader providing moral support to a person who is competent but may lack confidence. Finally, a *delegating* style involves the leader passing over all responsibility to the worker.

This is an important notion: leaders need to adapt their style to the people in the team and the work that they need to do. Ideally, the leader should be looking to develop the person on the task so that eventually the person can be delegated the task in full (after being initially directed, then coached, and supported along the way).

In all of this, *the specifics of the task are important*. The worker might be highly skilled, confident, and motivated in their job role, or very good at other tasks, but if asked to perform a new task requiring new skills or methods, that same person should be treated as a beginner. This can be done with dignity (with explanation that you intend for them to be able to take on the task fully in time), and as long as the leader adapts their style appropriately, a fast learner should be able to progress quickly through coaching and support to be fully delegated the task. In complex tasks, this may take more time and more effort on the part of the leader.

An effective leader should be looking to make the team as self-sufficient as possible – able to take on tasks and be responsible for their delivery. A good leader may start by directing tasks but will be able to coach, support, then fully delegate the task to team members as they mature in their skills and experience. The more that is delegated to the team (according to capacity) the more time the leader frees up to consider wider issues of improvement, scope (boundary of the project) constraints (e.g. getting more funding), developing key partnerships, building important relationships (e.g. with communities or with government), and so on.

An important learning point is that there is no one best approach – it must be adapted to context (especially the task being undertaken). However, equally, it is still important to remember that there are leadership behaviours which are *never* the best approach so ensure that in your leadership choices, you very rarely, or ideally never, fall into those bearpits (see Chapter 2).



*Figure 3.3* A schematic illustrating the matching of leadership style (Situational Leadership) with the stage of team development being encountered. The correct leadership approach will enable the team to progress to the next level of development and ultimately, higher performance.

### *Team development from ‘forming to performing’*

The best-known team development model was devised by Tuckman (1965) and is known as the four-part ‘Forming-Storming-Norming-Performing’ model. This model introduces the importance of understanding the development stages of a team over time and also how teams can get locked in unproductive stages of development. This model and other aspects of team leadership will be discussed in Chapter 7, but at this stage you can consider how the leader has responsibility for proactively steering that development.

One of the important observations by Tuckman was how the leader’s role changes during the team’s development, to enable the team to mature over time and achieve high performance capability (Figure 3.3). At each stage the leader’s approach will be similar to the stance taken with Hersey and Blanchard’s (1969) Situational Leadership model previously mentioned.

- **Forming (team formation):** the leader directs the team, sets expectations, roles, and direction.
- **Storming (dissonance):** the leader coaches the team on how to disagree and solve problems.
- **Norming (settling down):** the leader supports the team in improving processes and performance.
- **Performing (high performance):** the leader delegates work for the team to manage themselves.

Here we see how an adaptive management approach based on sound principles can apply different styles in different contexts, focusing the substance on clear purpose, vision, values, and

sound work processes adhered to by the team. This is important to consider when working with people and partner organisations, which have different cultural backgrounds to our own.

### **Cultural context**

This book does not aim to detail the differing cultural contexts encountered by the conservation leader. However, clearly having a leadership approach that is adaptable and appropriate to cultural context is really important. The approaches that are described here are appropriate across cultures and have been successfully taught and applied in every continent, but that said, some important principles are worth keeping in mind when working with people of different cultures, or when moving from one cultural context to another. These principles apply in Western cultures (although are often forgotten) as much as in any other. I draw on experience in programmes which I co-led on leadership in transnational organisations with John Barratt and reflects principles in his book *Timeless Management* (Coppin & Barratt 2002). These principles have subsequently held true in work I have done with organisations in Asia, South America, Europe, North America, and Africa:

- Maintain the dignity of others through graciousness and personal integrity
- Provide clarity in expectations, instructions, and messaging
- Maintain mutuality through assertive win-win communication and by building trust
- Focus on the work not the person, keeping things simple

A key point for working with people in different cultures and educational backgrounds is to meet with them in a place of dignity. Even if you do not agree with their value systems, their world view, religion, economic choices, or social norms, if you are able to treat others with dignity by listening and seeking to understand, it is much easier to find common points of interest in which shared actions can be identified. Stephen Covey's (1989) book *The 7 Habits of Highly Effective People* includes one habit, namely 'seek to understand', which is easily relatable to this principle.

### **The role of the conservation 'Champion'**

One characteristic of successful conservation programmes is where a project or initiative is led by someone who is overtly perceived by the team and externals as the 'champion' of the cause (Black 2018). For a particular project they will be the 'project champion' – seeking for the work to succeed and for the project to deliver its outcomes successfully. In other contexts, there might be a 'species champion' who looks out for the recovery of the species of concern. This can be very important for less well-known or otherwise obscure species. In other cases, a community champion will be important, ensuring that activities involve local people and meet the needs of local communities who are committed to conserving the landscape in which they live. In some instances, there might be a combined leadership team who collectively "champion" the project as a group (Sutton 2015), which is particularly important on multi-agency projects.

This champion role is not a simple one of advocating for the cause. A project champion has the passion, expertise, and knowledge to drive the design of the work, to monitor progress, and to develop the organisation to be best capable of ensuring success. More than that, a champion needs to seek out knowledge that will inform the project. If it is a species recovery project, they will seek out knowledge of the species ecology and biology or, if this is not known, will find experts who have that knowledge. If it is a landscape programme they will seek to understand

the habitats, ecosystems, and land use in the region. If it is a sustainable resource programme, they will seek to understand the needs and lifestyles of people using natural resources.

A project champion may *not* be charismatic, but they will have a passion, even if wholly contained within themselves. However, even if the person is not an extrovert, they will demonstrate passion by what they say, what they commit to, and what they do – in other words, substance first rather than style. *People respond to what leaders say and do, so messaging is important, having discussions about key topics is important, solving problems together is important.*

The most influential people in conservation are those who step out and share their enthusiasm, whether in a low-key way or with great fanfare but which genuinely engages the enthusiasm of others. The *effort and interest of people becomes focused on the cause* and not on the leader. This is the true legacy of a successful champion.

### **Case Box 3 Global carnivore conservation programme**

I have spent time with a small leadership team engaged in a global conservation programme supporting a carnivore species living across a huge landscape across a continent, and specifically in 21 countries of very differing national cultures. The landscape is so large (millions of square miles) that realistic conservation effort might appear almost futile. Surely national governments can do something about this! Unfortunately, many of those national governments are not used to nor willing to collaborate, yet the species remains threatened in each country and often for very different reasons.

The programme was essentially initiated by biologists with a passion for the species and who wanted to understand the presence, population status, and threats which it faced. They pursued excellent work identifying the species range (a familiar species, nevertheless severely threatened with only a few thousand individuals remaining in the wild). The leadership team became heavily involved in IUCN and CITES work, lobbying for legislative support to protect the species against illegal trade, raising funding to support conservation on the ground, engaging with government officials to identify commitments to protected areas, and eventually development of wildlife corridors.

As they became better acquainted with the work, it became clear that local professionals were needed in each country to spearhead efforts on the ground. This required the leadership team to get acquainted with hiring the best people locally, identifying in-country structures that could support people in their role, identifying training for professionals in new skills. The leaders also developed a peer network so that nationals would work with colleagues in adjacent countries, building up links and networks. The leadership team explored further collaborations involving other species-focused organisations, landscape planners, government departments in wider conservation planning in areas where the species was present. In time, these champions became key players leading large landscape collaborations affecting multiple countries and multiple species.

They still have a long way to go, but with a network of in-country partners their impact on conservation in the continent has grown significantly. A small leadership team of four people, in collaboration with colleagues, has generated a significant advance in conservation in a short period of time. Their skills in leadership, lobbying, funding applications, mentoring, networking, and sharing have enabled this progress far beyond the original scientific remit envisioned by



the project. These behaviours had become so embedded in their work that the leaders were never really aware that it was 'leadership' – they were just getting on with the job and evolved their roles as the context around them (the system) demanded it. Their skill was keeping their eyes open to the opportunities and the interventions which they could influence.

### **Chapter 3 reflection – initial perspectives on leadership**

Consider the following learning:

- A leader can draw on a range of sources of power to influence others.
- Expecting to control everything is unrealistic. Instead, focus on what you can influence.
- Influence is not 'getting your own way' but rather humility, service, integrity, and trust.
- Purpose, vision, and values help you to set out the way the organisation should work.
- Marketing, financial, and operational strategies map out what the organisation does.
- Defining your organisational boundary (what activities are in and what are outside) is a key element in providing clarity and focus to the team.
- Expect variability in people's capability and commitment. Use different leadership styles (directing, coaching, supporting, and delegating) to meet the needs of the staff involved.
- Be an advocate or 'champion' for the focal species or ecosystems of concern.
- Expect the team (or teams) to mature over time but accelerate this with active leadership.
- Embedding leadership into the job, and what we need to be doing, *is* effective leadership.

### **Exercise 3 – sources of power used when leading others**

Reflect on the sources of power that you lean on when trying to influence others.

- (1) Are these the most useful sources of power?
- (2) What might be the effect or impact on the follower?
- (3) What alternative sources of power would be better?
- (4) How could you access alternative source of power?

Think about some upcoming situation where you need to get others to do something for you.

- (1) What would be the best source of power in each case?
- (2) What would you say to communicate your request to reflect and draw on that source of power?
- (3) Consider rehearsing the conversation with a trusted colleague and ask them for feedback on:
  - (a) how you came across to them.
  - (b) how convincing your line of discussion was in influencing them to respond positively.

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- ZSL EDGE of Existence Programme. [www.edgeofexistence.org/](http://www.edgeofexistence.org/)

## 4 How leadership affects conservation design

### Personal Perspectives – Introduction

The conventional view on leadership is that its importance rests on the charisma of the leader for influencing people to follow or the leader's capability to set direction or to be decisive, or possibly all three. Sometimes, the ability to take risks is mentioned. More cynical observers may comment on how the organisational culture is influenced by a leader, possibly for the worse. The early chapters attempted to help you recognise and dispense with the negative aspects associated with leaders. Chapter 3 allowed you to turn a corner in your understanding and has, hopefully, opened your mind to the modes of leadership thinking which will influence more positive approaches. Remember that all of these new modes of thinking are based on sound theory and observable effective practice.

This chapter draws on insights gained from many colleagues, especially Hugh Doulton, Kerstin Opfer, Samuel Leslie, Christell Chesney, Hanna Mounce, Goutham Narayan, Thirza Loffeld, Sarah Durant and her team, Parag Jyoti Deka and his team, and colleagues at the Mauritian Wildlife Foundation.

Leaders have a particular role in ensuring the organisation is aligned and functions correctly. This is not an abstract concept but is reflected in the design of jobs, budgets, the setting of goals (and targets if that habit has not been consigned to the dustbin), the direction, description of values, the tone of day-to-day interactions within and outside the organisation, the management of meetings, setting of priorities, the questions being asked, and so on. This is a significant range of tasks for the leader and difficult to get right without the correct mindset. It is the difference between getting people to pay attention to you (which is egocentric and in the long term, unhelpful) and getting people to pay attention to what is important, namely the purpose of the organisation and the needs of species and ecosystems of concern (including needs of human communities living in ecosystems). Purposeful organisational focus is vital. Leader-focused organisations are at best a bad distraction and can become self-serving and unsustainable. History is littered with examples of such failure.

The advantageous side-effects arising from purpose-driven leadership is twofold. If you stay in the same organisation for many years, you can influence it to develop and adapt to new circumstances so that it remains effective and successful. If you move between organisations throughout your career, you can apply the same principles and thinking wherever you go. If the areas of work covered in this chapter seem like 'not my job as a leader', then *beware*. If you do not work to influence the machinery of the organisation, it will develop itself and become your master! Conservation cannot afford to become trapped by inertia.

## The notion of leadership ‘ethos’

Ethos is simply the set of values, perspectives, and priorities which you, as a leader, draw upon in your personal approach (Hannah & Avolio 2011). Ethos is part of your character, but it is important to note that your character is *not* a limited prewired aspect of personality but is considered in the wider psychological sense of learnable layers of self-awareness and self-regulation which emerge with experience and conscious consideration of personal values or accrued beliefs (Hannah & Avolio 2011; Coppin & Barratt 2002). In terms of leadership, the importance of ethos is that you will either consciously or unconsciously refer to these values when designing the organisation, its work, and the development of people in the team. This chapter includes several organisational examples to indicate how leadership values (‘ethos’) have directly influenced the design, mode, and direction of the work. Links to further information on each example organisation are provided.

## Work design and the purposeful organisation

How does a leader influence the design of work in the organisation? The obvious initial answer is through the leader setting tasks and checking results; this is normal supervision. However, as we have seen in previous chapters, if a leader’s thinking (i.e. their leadership ‘mindset’) has particular biases and expectations (or ways of seeing the world), the design of the work will be shaped primarily by those expectations and not necessarily the actual requirements of the work.

This is a surprising aspect of learning for a leader but can be appreciated if we consider this from the perspective of followers. Biases in a leader may not be seen by the leader themselves but are seen by the staff members. The team see illogicality in the requirements a leader sets, usually in the mismatches between the leader’s view and actual work requirements since, fairly obviously, the staff are the ones who do the work (Seddon 2003).

So how does a leader get around this potential problem? It is a question of leadership perspective. The most important thing a leader can do, as has been highlighted in all the chapters in this book, is to define the purpose of the organisation (Deming 1982). With that the leader must also ensure that specific purpose is correct, enduring, and consistently understood and followed by everyone in the organisation (or team).

The consistency in people’s understanding of purpose is critical. I once worked in a field project which included investigations into alien invasive species; when an invasive animal was encountered it was humanely destroyed. When veterinarians volunteered for roles in the same project, they came with an ethical concern for the welfare of each individual animal which they encountered. This occasionally caused arguments and friction when a decision to euthanise an alien invasive animal was taken by fellow project workers. The workers were effectively working at ‘cross-purposes’, with different agendas; the key is to *get everyone to follow the same purpose* (Black 2015).

Purpose defines the work (Scholtes 1998). The leader can ask: ‘What work is required to deliver the purpose of the organization or project?’ and ‘Who are the customers of the work (i.e. the beneficiaries, which can include endangered species of animal or plant) and what are their needs?’. In other words, the leader needs to have a mental perspective (i.e. a way of thinking) which considers to whom the output of the work is directed. Whilst in conservation programmes these ‘customers’ are likely to be species and ecosystems, many projects often also need to consider the people living within those same landscapes (Black & Groombridge 2010; Black et al. 2011), sometimes complicated by them having conflicting needs.

***An outside-in view of cheetah conservation in Africa***

A purposeful perspective on the organisation involves an outside-in viewpoint. An outside-in view of the work needs to start with understanding the needs of the species, ecosystems, and people in the landscape. If local people have a negative impact (e.g. through poaching or offtake of limited natural resources), then those people's needs still need to be considered (i.e. specifically, why they need bushmeat or wood in the first place in this example). This allows the leader to consider the broad context and boundaries of the project's work. For example, the work of The African Range-wide Cheetah Conservation Initiative (<https://cheetahconservationinitiative.com/>), also known as the CCI, is largely a landscape-based scientific and community-based programme but also includes active involvement with CITES and political lobbying on wild-life trade controls, since cheetah populations in some countries are exposed to illegal pet trade offtake. The boundary of the work (see also Chapter 3) is defined by the needs of the species (including addressing threats).

If leaders are able to develop a purposeful organisation, and the purpose of the organisation is clear and relevant, it becomes far easier to define which things are for the organisation to fix or for it to make efforts to encourage others to fix. It helps leaders to decide what is inside the boundary of work and what is outside. CCI pursues work in Southern Africa supporting communities involved in protecting the landscape linking Zambia's southern Kafue National Park with the Simalaha Conservancy, to retain the link with the rest of the Kavango Zambezi Trans Frontier Conservation Area. This work feeds into a multi-ecosystem, multi-species landscape conservation initiative but also has direct benefit for supporting cheetah range conservation. The work with partner organisations enables the boundaries of the CCI and subsequent use of resources and effort.

***Social concerns in tiger conservation***

Clearly, in scenarios where the people living in the landscape are part of the problem, defining their needs is more difficult; indeed, as conservationists should we really need to meet their needs? It might not be our responsibility to meet those needs, but we do need to consider solutions and suggest them to partners or government. For example, if people are being moved out of a new protected area, they have a need to find a new home. If not, they will most likely return and cause difficulties. If people are living in a protected area legally, but are overusing scarce natural resources, what need do they have for taking those resources, and can alternatives be found for them? If people are suffering conflict with wildlife, what needs do they have which can be mitigated by action on the species or protective resources given to the people? As examples, some species conservation programmes have become involved in capture and relocation of problem animals, for example the work by Wildteam in Bangladesh conserving tigers in the Sundarbans ([www.wildteam.org.bd/](http://www.wildteam.org.bd/)). It is not conservation work as such, but the ethos of the leadership is to be supportive of communities to enable those communities to support (or at least tolerate) the presence of dangerous animals.

***Purposeful partnerships***

In conservation, leaders are constantly faced with decisions about priorities, where there is a need to place effort, and what sources of funding to chase (to support chosen areas of work). Sometimes, leaders may be tempted to pursue funding which could take the organisation off purpose (due to the funder's priorities being different to the project's priorities). An organisation may also be tempted into areas of work where it lacks the required expertise. Both situations should be avoided where possible, and certainly managed with care, as illustrated in several examples.

- A mammal and bird species conservation organisation became involved in the protection of freshwater fish in one location. Whilst this was valid work and relevant to the communities of the area, the project was best delegated out to experts in freshwater conservation.
- A different landscape conservancy organisation wanted to manage the reintroduction of large wild mammals (work requiring some animal management and species expertise) to enable natural regeneration of its nature reserves. Through partnership, the reintroduction was delegated to a separate expert species conservation organisation.
- In the Cayman Islands, the local NGO has high levels of expertise in management of blue iguanas. However, for specialist veterinarian work and scientific analysis (Figure 4.1) they seek support from an external partner (with resources and expertise readily available).



*Figure 4.1* Partnership in action. The field team at Blue Iguana Conservation (BIC) in Grand Cayman prepares and analyses blood samples and parasites alongside veterinarians from WCS. Samples are taken to the United States for further analysis. The availability of external expertise through this type of collaboration allows local NGOs to prioritise resources and people within their boundary of operation.

*Source:* Photo credit: Shannon Farrington

A core element in a leader's ethos is deliberate setting out to establish a purposeful organisation and reinforcing particular purpose in what they say and what they do. Tom Peters (Waterman & Peters 1982) encourages leaders to get organisations to do what they are best at, to 'stick to the knitting'.

### **Developing people as purposeful, independent workers (especially in the field)**

Conservation work requires that professionals often work away from their immediate supervisors, for example when conducting activities in the field. This means that it is best for each worker to be able to be independent in terms of skills, responsibility, and equipment; a situation needed in many other work situations (Seddon 2003).

Assuming that people have the necessary skills and task knowledge, it might be expected that a simple set of instructions (e.g. to carry out monitoring each day for six weeks of the field season) would be a fairly straightforward instruction which most people should be able to carry out. This assumption, however, reflects conventional cause–effect (or command-and-control) thinking and can raise up unexpected complications. A problem occurs if the working conditions cause people to reprioritise their energy and effort to complete the task. One example might be fieldworkers placed for six weeks in a relatively demanding mountain environment; fatigue might make the work a challenge, so the workers focus more on completing (or surviving!) the six-week cycle that they do on other aspects, for example accuracy of measurement, completeness of recording, coverage of whole research location, or daily records. The result is a patchy data set which may undermine the monitoring requirements of the project.

Of course, any of these things can be neglected, depending on the choices made by an individual fieldworker. The same is true if the location is affected by bad weather, illness in the field team, and so on. This is not deliberate neglect on the part of the staff members, it is more a displacement of goals caused by the design of the work. This is a real and familiar issue, although some leaders are able to overcome these problems. How do those teams overcome the problem? Is it by making the instructions to staff clearer and more explicit? If the instructions are too vague in the first instance, yes, improve the procedure, but usually the clarity of task instructions is a minor factor; it is the design of the work that is critical.

### ***Maui forest bird recovery***

In the Maui Forest Bird Recovery Project ([www.mauiforestbirds.org/](http://www.mauiforestbirds.org/)), the team rely on capable student volunteers each field season, so there is a constant influx of new people who need to be trained on monitoring protocols and then be held responsible for applying those instructions under their own direction over many weeks. In past years the training was very clear, but still there were occasions when data sets were incomplete or inaccurate (Mounce 2018). The reason was that the student volunteers (staff) were not fully invested in the project. They were keen, they knew the objectives of the programme, and they knew the importance of monitoring. The problem was they had not internalised the purpose, goals, and factors critical to the team's work well enough to make decisions about priorities in the field.

To overcome this, induction training for these staff was redesigned, extended to one week with more time spent on learning and discussing the purpose and priorities of the programme and less on arranging logistics and packing for the field. New starters were also required to explain and deal with questions on these issues with members of the public at a community event. This internalised the issues for the new staff. The result in subsequent field seasons is that there are much fewer problems with data gaps and errors than had been previously occurring with student volunteers.



The ethos here is that volunteers are part of the team and need to be as invested as a salaried professional staff. In general terms, the same is true in any programme. All staff need to feel part of the team, understanding the purpose and values of the project, its main objectives, and priorities.

### ***Dispersed leadership for regional offices and remote projects***

Conservation staff are often dispersed from their main office or headquarters. This means they may need to act as ‘ambassadors’ for the programme in the leader’s absence. In these instances, staff need an unambiguous understanding and a real sense that they have a share of the responsibilities of the leadership role. This type of commitment and investment is not delegated to people. Staff have to have a sense of belonging and personal affinity with the project, as their employer. People need to understand that, to some degree, they have to contribute to leadership at the next level up (i.e. actively support their manager). This takes courage on the part of their leader, since the leader has to believe in the capability of their local staff and be prepared to ‘give away’ a little of that leadership; the ‘I lead’ must become ‘we lead’. The rewards, however, far outweigh these costs (or risks) to the leader.

### **Influencing your organisation’s focus on biodiversity**

One would think that a focus on biodiversity is uppermost in the mind of all conservation leaders. Whilst this is generally true, it is also true that under certain circumstances the relative importance of direct work with biodiversity can be eroded by increasing emergence of priorities around budgets and funding, political support, partnership development, publicity, and media profile (Black et al. 2011). At worst, examples have been suggested where leaders appear to prioritise their own job security or pensions rather than pursue meaningful conservation effort (Powell 2008). It is also likely that some individuals pursue conservation purely for personal career satisfaction, although simple personal observation suggests this is less common in the conservation professions than in other sectors such as commerce, financial services, academia, or industry.

Examples where conservation purpose has been lost to following human organisational agendas are worst-case scenarios. Most discussions of conservation leadership tend to reasonably assume that leaders have a commitment to biodiversity. However, when we talk of ‘commitment’ what does this really mean? To assist us with this, the Conservation Excellence Model (Black & Groombridge 2010), which is discussed in more detail in Chapter 8, is a conservation management framework which makes explicit reference to a leader’s commitments as defined by the following three principles.

#### ***Commitment to biodiversity recovery should be clear to everyone***

Leaders are expected to commit in terms of what they say and also in general messaging around conservation issues and the purpose of the programme, provision of resources to assist work on biodiversity, direct involvement with partners and other stakeholders working on biodiversity issues, a recognition and encouragement for people’s efforts to conserve biodiversity. The basic message is:

Commitment is expressed through conscious consistency in what a leader says and what they do in support of biodiversity.

A leader’s non-verbal behaviour is as important as what they say, in fact, when there is inconsistency between the two, it is what is done which tends to be followed by others.

***Focus and commitment should be expressed in practice, time, and resources***

At a practical level, the leader needs to ensure that the programme purpose and the efforts of the team are focused on the species, ecosystems, habitats, and landscapes of concern. If the focus is too woolly, there will be ineffectual messaging. A leader needs to be asking questions about how the work that people do is affecting species and ecosystems of concern. Budgets that are set and funds and resources provided should be delivering outcomes for species and ecosystems of concern.

***The work should be based on science (species, ecosystems, social science, and psychology)***

Conservation work is informed by science so where scientific knowledge is available it should be utilised. Where scientific knowledge or data is not available (e.g. knowledge about an obscure species or a poorly understood ecosystem or a remote region), it should be sought in practical ways to support informed interventions (Jones et al. 2018). A commitment to science and knowledge should be conveyed in the coaching provided to staff and the partnerships developed with other organisations. Chapter 5 explores the topic of knowledge and offers ways in which different types of knowledge can be valued by leaders.

Where the programme team is itself weak in a particular area of expertise, the leader should be prepared to go outside for help (Black et al. 2011). Where this currently barren area of expertise is needed over the long term, it is wise to establish the capacity within the programme itself so training of staff, recruitment of specialists, or knowledge transfer from outside partners is helpful. If resources are scarce, then a long-term partnership (e.g. with a university) could be a good way of keeping expertise close and cost-effective, in exchange for offering field sites for academic researchers.

A programme leader may or may not be an expert in focal species, landscape, or ecosystems of concern. However, the leader's ethos should sensibly take account of characteristics and needs of biological systems (and human societal systems) of conservation concern.

- **If you are an expert**, consider: *should my expertise be transferred to staff within the programme or should I (selfishly) hold on to it myself?* For the sake of the programme, you should share your expertise out and coach and develop staff to a high standard of capability and knowledge. If not, your time will be consumed by the minutiae of work which (although interesting) is not the sole focus of a leader's role. Do it all yourself, and the overall work intervention will take too long to make a difference.
- **If you are a non-expert**, ask yourself: *what do I need to know about our focal biodiversity and the methods of intervention needed on the programme?* You should have sufficient knowledge to question colleagues and decide whether resources, time, or people are being adequately used.

**Optimising conservation performance and continuous improvement**

Leaders will usually want to improve the performance of their project wherever possible and a reasonable assumption is that any reader of this book would have this mindset. I have heard it (wrongly) asserted by some managers that they are “not interested in the words ‘optimize, maximise or minimize’, since these suggest limits to improvement”. They are only interested in better or best and worse or worst! Whilst there is some sympathy with this view, it is systemically incorrect, since it focuses on the level of result achieved as being the defining characteristic of achievement. Systems (ecosystems, organisations, social systems) do not work like this.

The Theory of Variation (Shewhart 1931) tells us that although one result may be ‘better’ than another, there may be no real difference between the two and no knowledge of what the next future measured results will be; whether ‘better’, ‘worse’, or the same (Deming 1982). However, with the correct examination of data derived from a given system we can discover its performance, which will have limits (upper and lower) from which the best outcomes can be predicted (i.e. optimum performance). These analyses and insights are discussed in Chapter 6. What leaders need to understand as a start point is:

Improvement is achieved by working on the system, not by a focus on results (or intended results).

This assertion is a major challenge to anyone who has been brought up on management by results or the old saying: the only things that can be managed are things that can be measured; these are fallacies (Deming 1994; Scholtes 1998; Seddon 2003). That is not to say that organisations should not measure or monitor results; however, if we want to be effective the emphasis is that *we use results to inform our understanding of the system*.

We need to understand how the system is behaving and what it involves (processes, people, inputs, controls etc.) so that we can make improvements to get better results. If we focus only on a ‘better result’ we will not have the knowledge to ensure that we will continually achieve those better results in future. This is the fallacy of working to targets.

*We should seek results data not just to see the results, but to understand what is going on (good or bad) so that we can seek to continually improve.*

**Continuous improvement** brings our understanding of results to the actual working of processes, to identify properly tested changes to method (task, timings, resources etc.) to get better results. Once we see improvements, we get the changes embedded and solidly established, then we seek further improvements. Each time we change the system a new system arises which can be optimised; thereafter, it is changes in the system of work that enables us to ‘re-optimize’ in future improved systems. This continuous cycle enables us to improve outcomes or to adapt to changing circumstances; both being the basic requirements in conservation of species and ecosystems of concern, namely removal of threats and recovery and re-establishment of populations and habitats. These approaches are covered in depth in Chapter 6, 8 and 11.

### ***Population recovery in critically endangered bird species***

At a basic level, continuous improvement was applied to the development of artificial nest protection for several endangered bird species (Figure 4.2). Different approaches to nest box design, location, and predator deterrents have enabled significant improvement in nesting, hatching, and fledging of many species, both in captivity and in the wild. This type of continuous improvement in conservation initiatives tends to enable one of two positive outcomes: either an exponential improvement in performance or a step-change improvement in performance.

- Exponential improvement shows accelerated uplift in performance over time.
- Step-change improvement enables performance levels not previously considered attainable.

These radical changes in performance level are now demanded across the conservation sector as threat levels increase despite the valiant progress made to preserve species and ecosystems in recent decades. Understanding improvement is an essential competence in conservation leaders.

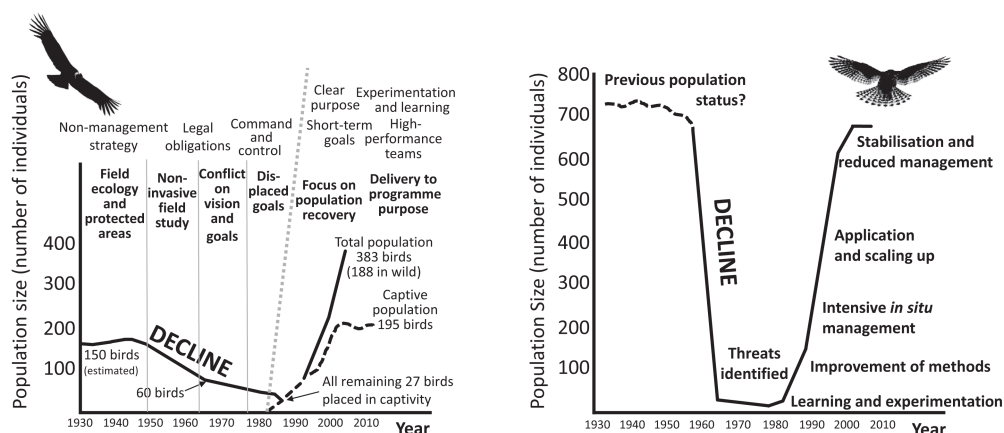


Figure 4.2 Recoveries of the California Condor (Snyder & Snyder 2000; Black et al. 2011) and Mauritius kestrel (Jones et al. 1995; Black 2018) are examples of exponential improvement in population recovery, achieved by testing and improving intervention methods.

### Ensuring staff well-being through straightforward benefits and welfare

Managing the basic well-being of staff is a simple aspect of working and leading whilst keeping the dignity of others in mind (including one's own well-being and dignity). This is an area of discussion which has only recently been seriously raised and debated within the conservation sector (Loffeld et al. 2022a). The conservation sector is typically underfunded, yet the work which is involved often tackles difficult problems, and staff are overstretched. Furthermore, people in the workforce tend to be vocationally oriented, may work in difficult or demanding conditions, and sometimes operate in locations remote from other human society (Black et al. 2011). In a purposeful task-oriented culture (Handy 1976, 2007) which is common in conservation projects, the work is the king and the relative distress or pressure placed upon the workforce can be considered secondary within the thinking of the managers who are overseeing the work. There may also be an over-riding culture of restraint where there are restrictions on the use of resources and time (Hofstede 2011), such that the pervading ethos is 'we will make do and put up with things'.

Whilst staff well-being is important clearly, however, conservation organisations do not exist for the benefit of the staff; at an economic level the ability to carry staff needs (such as sickness absence) is often limited to legal minimum requirements. That said, it should be noted that there is an observed tendency in charities (including NGOs as commonly present in the conservation sector) for the workforce to expect, over time, that the organisation is run for the benefit of the staff as much as for the beneficiaries of the work. This results in a shift towards a specific 'Person Culture' (Handy 2007), where the people within the organisation become the important focus and not the purpose of the work. Leaders in conservation charities and NGOs should be alert to this risk and keep people focused on their conservation purpose.

Well-being is, however, clearly important. It needs to be managed carefully and purposefully. People need to be kept safe, they need rest, they need to be able to perform to their best ability. They certainly need to recover if ill or injured. They also need some sense of security in the job (or an alternative job might entice good staff to leave, which only causes difficulty for the leader). Maintenance of staff well-being is definitely in the leader's interest (Chesney et al. 2023).

Some needs are hidden (or leaders have a blind spot to people's needs). This type of blind spot has often been experienced by female workers, who might have leaders make assumptions about a woman's capability, ambition, or priorities which are wholly inaccurate, and this creates significant unfairness in the workplace. At worst, women might experience harassment, and this needs to be addressed by the leader (Loffeld et al. 2022a). The same can be experienced by workers from different ethnicities, religions, nationalities, or community groups. Care must be taken by leaders not to make assumptions in all of these respects.

A leader needs to decide how their ethos relates to people's well-being. The leader's ethos will inform recruitment, selection, team building, training, pay and reward, retention, benefits, and other support mechanisms.

### ***Pygmy Hog Conservation manage staff well-being***

The Pygmy Hog Programme is administered and managed by the local Indian NGO with external funding and support from Durrell ([www.durrell.org/conservation/species/pygmy-hog/](http://www.durrell.org/conservation/species/pygmy-hog/)). Staff are Indian nationals, many of them living in local communities, employed in a wide variety of roles. As a local organisation the Pygmy Hog Programme makes sure that benefits such as driving lessons, mobile phones, flexibility in time-off from work (e.g. to fit agricultural seasons for family farms), and savings schemes provide incentives to retain the goodwill and commitment of the workforce. Some roles include on-site family accommodation (to keep the sites secure). While the budget for salaries for the project is limited (compared to government jobs), the overall package of care and the stimulating working environment make working in the programme attractive.

There is a high degree of staff loyalty and retention in the Pygmy Hog Programme (P. Deka, personal communication), demonstrated by staff being ready and willing to be on call if an emergency occurs, for example, if there is a threat of wild elephants encroaching on or damaging the soft-release compounds which are adjacent to nearby fields and forest (G. Narayan, personal communication). As a mutual benefit, the staff members themselves can return to their family's or neighbours' fields to harvest crops which might also be under threat from elephant crop raids. This simple mutual respect aids both general staff well-being and overall programme effectiveness.

### ***General safety and wellness of staff***

An area of concern in some locations is the physical safety of staff. This includes transit into dangerous areas (e.g. warfare, civil unrest, criminal activity, terrorism), solo working (especially for women), or dangerous environments (cold, heat, disease, dangerous animals). Leaders must remain aware of these issues, particularly if new developments arise. We cannot dismiss these issues as 'it was just like that in my day, so get on with it'; this is an ignorant and neglectful approach. The organisation must be designed so that these elements are minimised or eliminated. A personal leadership ethos will steer management decisions and policy on these matters.

The same is true for when considering how to cater for mental health issues. Should a leader just consider things like their staff's isolation, loneliness, depression, and anxiety as 'normal' conditions in the conservation workplace? If not, why? What reasonable support can be put in place first to minimise the onset of mental health issues and then to support staff who are suffering distress. Even more important, as a leader, it is important to provide a space where people can discuss these issues without fear of judgement or reprisal (Loffeld et al. 2022a), where they feel psychologically safe.

An important part of your ethos is to understand the needs of others, even if you do not have those needs yourself. Are you bothered enough about your staff?

**Valuing the engagement of local communities**

The part that can be played by people living in the landscapes in which conservation is undertaken is a question which has become increasingly important in recent decades (Nilsson et al. 2016). Human population growth, migration and refugee movement, climate change effects, growth in illegal wildlife trade markets, and degradation of water catchments, desertification (accelerated by human landscape use), and human–wildlife conflict have brought human issues and biodiversity issues into the same sphere of concern in many locations.

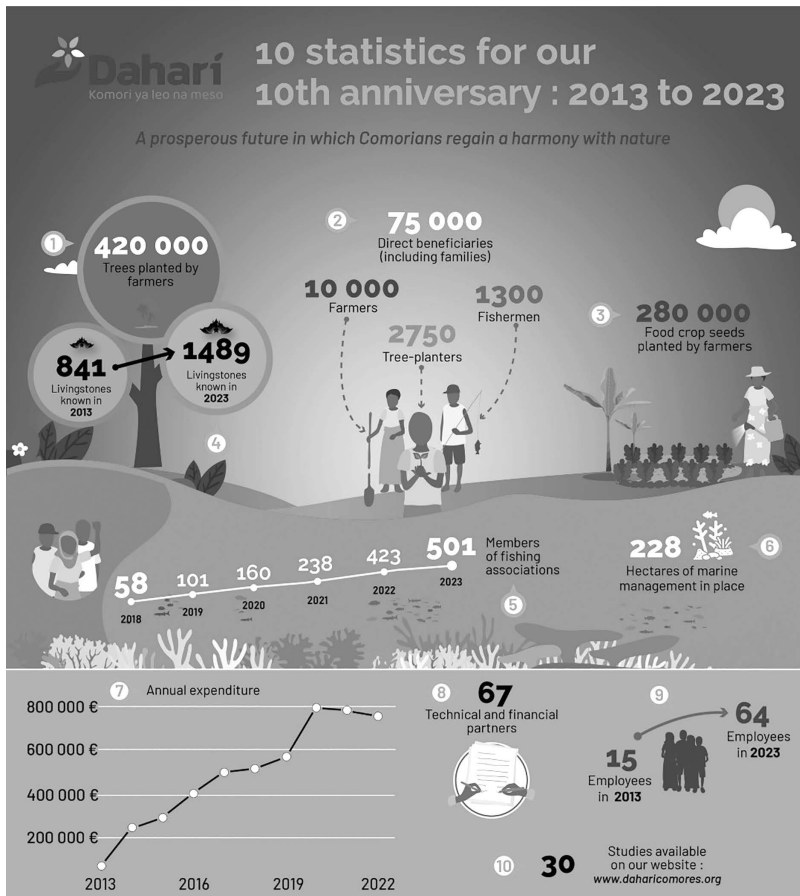
To a certain degree, working with human communities has previously been seen merely the *de rigeur*, ‘the thing to do’ particularly for scientists who might perhaps have preferred to focus on species and ecosystems to attract external funding. Some organisations that lacked expertise at working with people became engaged in community activities, so had to seek out expertise in education, support, engagement, and co-opting volunteers. This was successful in many respects, bringing new competence (such as social sciences) into the sector. Research suggests that local communities value involvement where (i) conservation-related livelihoods are possible; (ii) conservation benefits outweigh previous unsustainable behaviour, and (iii) people are empowered to manage natural resources (Nilsson et al. 2016). However, there have been many failures, and some local communities living in particular landscapes have subsequently been left ‘in the cold’ by short-term projects which have ceased funding, and the professional staff who had been working in the community have moved away.

Leaders must surely give serious consideration to interaction and development of relationships with local communities, whose needs may diverge significantly from our own, perhaps even being antagonistic to our conservation interests or social norms, yet which must be properly considered and proactively engaged. A leader will hopefully have a positive ethos towards their own project staff (reflected in the way that teams are managed), but is the approach to outsiders in the community consistent with these same values? It is worth serious consideration.

***Developing long-term engagement in Comoros***

The Comoros is an island nation situated on an isolated archipelago northwest of Madagascar in the Mozambique Channel. The islands have suffered some of the worst deforestation in recent decades. Where once there were dozens of rivers found across the country, now only a handful of permanent rivers remain, since water catchment from montane forests has been significantly reduced as the forest cover has disappeared. The only remaining forests are found on mountain peaks, with most fertile land converted to agriculture (Doulton et al. 2015). A local NGO Dahari was set up in the early 2010s (<https://daharicomores.org>) with a remit to reverse the degradation of the landscape by increasing farmers’ agricultural yields to reduce pressure on land (through improved methods and technology) and through reforestation efforts involving local farmers.

Dahari has been successful in engaging local people, many of whom can remember the previous forest and notice the reduction in rainfall within their lifetime. Local people are dependent on the land and water to grow crops, so they realise the importance of the forest in this process. As a result, with support from crowdfunding initiatives and conventional grants, Dahari has worked closely with villagers to replant tracts of forest. Regrowth over the coming decades can recover functioning ecosystems. Local people know that they might not see the outcome in their own lifetime, but their value for the needs of their grandchildren motivates them to contribute, aiming to make a difference while there is still time and resources to do it. Dahari has connected closely with the community using radio, theatre, films, public events, and being active in farming communities with training, equipment, and advice. They also carefully engage trusted public figures to support the programme.



**Figure 4.3** Infographic summarising the results, progress, and impact achieved by Dahari Comoros (<https://daharicomores.org/>) across a balanced set of metrics, including biodiversity, landscape, social, and organisational (people, financial, scientific, partnerships) data. Leading organisations have a good understanding of this range of information and use it to enable management, decision-making, setting of priorities, and establishment and assessment of plans.

The Dahari programme has since expanded (see Figure 4.3) in partnership with Blue Ventures into marine protection, with community co-managed inshore fisheries as part of sustainable marine resources management in Anjouan. Local associations have now been established and have overseen a number of temporary fisheries closures to allow natural replenishment of fish stocks. Members of these associations have been involved in international exchange visits to similar programmes in Madagascar and Zanzibar. There has also been significant investment on training of fishers in sustainable techniques. The emphasis is on active partnership combined with local responsibility.

### *Engaging communities across large landscapes in Morocco*

Another successful community engagement scheme is run by the High Atlas Foundation in Morocco ([www.hihatlasfoundation.org/](http://www.hihatlasfoundation.org/)). Their development programme involves local

farmers who are provided with fruit trees and other species in a regional agroforestry initiative that aims to return deserted hillsides to woodlands with resultant improvements in biodiversity. While the immediate driver is commercial cash crops, the long-term benefit plan is for transformed landscapes (Opfer & Black 2019). Training programmes enable improved agricultural practice as well as spin-off cottage industries for women in the communities, and local schools are engaged in the programme. One key development has been the transition from NGO-managed local tree nurseries towards establishment of community-run horticultural nurseries which are staffed by a member of the local community. The nursery manager oversees the preparation of saplings for distribution of trees and seeds and provision of advice to local farmers. The commitment to moving skills into the community establishes permanency and frees up NGO staff for other roles and responsibilities as well as expansion of the programme.

### **Personal reputation and influence on political support for conservation**

Conservation organisations rarely have high degrees of power in the contexts in which they operate (whether politically, economically, or socially). In some situations, they have indirect power (e.g. from legislation and potential law enforcement), but this apparent advantage can cause additional conflict, suspicion, and antagonism from communities or interest groups. Those negative reactions essentially erode the opportunities to get things done and may see potential allies withdraw support from conservation activities for fear of unwanted attention or opposition.

Advocacy is an important issue in some conservation work. Should conservation leaders advocate for species or for local people, or for both? How do you get the correct balance? If you work with politicians, are you interested in their needs, or the public need, or your own need, or the needs of species, ecosystems, or the wider world? Some of these decisions will be down to personal choice. A leader needs to decide how to tackle political elements of their work, and how it relates to your own personal values and ethics. For example, how will support be gained from local leaders, politicians, and community elders (political, social, family, or religious leaders)? Are less powerful groups like women (in some communities) to be considered? Are the views or involvement of children (who after all will be tomorrow's adults) worth considering? Is the wider public (including the global public through social media) relevant and useful? How do each of these groups relate to the short-term needs, long-term needs, funding needs, permission needs, involvement needs of your programme?

As a leader do you choose to seek and meet people personally, to get to know them, or keep things professional? Do you develop networks through conferences and meetings, or through direct work activity? Do your personal style and the cultural norms of those you engage with require a relational approach or a work-related approach? Do you know the needs and expectations (including cultural and social norms) of the people that you need to meet, lobby, and from whom you need to gain support?

Clearly, as a leader you need to draw on your own personal value system and understand how to draw your approach in such a way that fits the purpose of the organisation. It is an approach which should be deliberate, value-based, and purposeful, yet natural. The source of this balance is personal integrity.

### ***Leadership ethos and stakeholder engagement by the Pygmy Hog Programme in India***

The story of the Pygmy Hog Programme and the work of Goutam Narayan and Parag Jyoti Deka over the past 30 years in Assam is eloquently documented by Jane Goodall (Goodall 2010).





*Figure 4.4* The keeper working area at the Pygmy Hog captive facility at Guwahati State Zoo. The Pygmy Hog leadership team oversaw the design and build of the facility, plus the recruitment and training of keepers for this rare species, the only zoo collection of the species in the world. A simple, low-cost, functional design, matched to high expectations of animal management is a key part of the Pygmy Hog leaders' ethos, and they set world class standards which other departments in the zoo are now beginning to follow.

*Source:* Photo credit: Simon Black

I can concur with her enthusiasm for the project, since part of my own programme consultancy work gave me the excellent opportunity to see the work conducted by these men and their dedicated teams in action in Guwahati and Sonai Rupai, Nameri, and Orang in Assam, India. It is clear that the Pygmy Hog Programme (now led by Parag since Goutam's recent, much deserved retirement) is one of the most effective captive breeding and species reintroduction initiatives in the world. Noticeably, despite being a small NGO, the programme has significant reputation and influence in the state, and in Indian conservation, offering training to other professionals, coordinating work with India's major national programmes for tigers, rhinos, and elephants as well as supporting capacity building in captive population management at Guwahati state zoo (Figure 4.4). This enables the programme to benefit from excellent support from the management teams at state national parks, wildlife sanctuaries, and the Assam Forest Department. The personal ethos, willingness for collaboration, sharing of skills and resources, and mutual

support have enabled Goutham and now Parag to nurture productive long-term relationships which mean a small programme, which nevertheless carries significant expertise, has significant influence in a country of high biodiversity.

### **Serving critical needs of communities in response to wildlife conflict**

One of the major issues that cause aggravation between species conservation efforts and community interaction relates to negative human–wildlife relationships (Peterson et al. 2010), often referred to as ‘human-wildlife conflict’. Crop raising, livestock predation, encroachment of homes (as pests), and human casualties represent typical issues for people living alongside some endangered species. Typically, retribution-killing of animals or removal of habitat (e.g. burning forest thickets) is undertaken by people to protect their interests.

A somewhat superficial but often advocated method for dealing with these problems is compensation schemes, for example for losses of livestock to large carnivores (Leslie et al. 2019), but these only aim to ‘move the problem along’, economically speaking; people have to tolerate the problem in return for cash. If as a leader you are considering the use of compensation schemes to support your initiatives, ask yourself: will cash work in the community with which you are working? The answer may be complex. Compensation may not be acceptable in some cultures or seen as a bribe by others. Increasingly, it appears that efforts to meet and understand people (their motives, habits, expectations, social rules, and subsequent behaviours) are a much better way of finding out how to get communities to work alongside conservation. Money might not be needed at all.

*People need to be confident that they are being heard: this is a question of leadership integrity.*

Does a leader’s ethos include *real* engagement with local people living in the landscape? Are you, as a leader, genuinely interested in what people have to say? Is there respect for their traditions, education, and experience? Do you have empathy for their struggles and difficulties (even if their solutions conflict with your own ideals)? Is there an understanding of the sense of threat that they experience? Do you have any shared interests or needs?

It is easy for your staff (whether you work in an NGO or a government institution) to consider people as the problem. It takes humility to see that ‘the problem is the problem’. It takes even greater humility to see that, in some instances, the project team themselves might be part of the problem!

### ***Understanding the needs of people struggling with tigers in the Sundarbans***

A positive ethos towards people living in the landscapes (in fragile ecosystems or alongside endangered species of concern) can open up a better understanding on how to design interventions that are sustainable and beneficial to biodiversity. This offers an illustration of how personal value (for people) has practical value for conservation work.

Conservation teams in the Sundarbans of Bangladesh work to assist villagers who are threatened by attacks from tigers on livestock as well as occasional devastating attacks on humans (especially fishers and honey collectors). Tiger density is so high and human communities are so near to tiger habitat adjacent to rivers, estuaries, and inlets that conflict is an almost daily occurrence (Reza et al. 2002; Aziz et al. 2013). Tiger teams from Wildteam offer a service to support families who suffer such attacks, as well as training volunteers in the best responses to tiger threats (Saif et al. 2018). Discussions with local people have revealed that despite the pressure from animal attacks, there is a surprisingly high level of respect in the community for tigers (S. Leslie, personal communication). Local people’s tolerance is so high that on occasions when

tigers kill people, the major problem is not the tragic death of a family member but rather the speed of response by the tiger team, which determines people's acceptance of the tiger threat. If the team appear to respond slowly it causes huge dissatisfaction and a loss of faith in the conservation programme. Simple operational measures (like prioritising an initial visit to the affected family) can get teams out to villages, be seen by affected persons, and can prevent any difficulty being associated with the overall tiger conservation initiative.

When conservation leaders understand expectations within communities, this knowledge can often identify more opportunities than problems. That said, it takes a particular leadership ethos to explore these motivations and experiences which can then reveal significant solutions. Old adversarial approaches to communities are unhelpful. Instead, a mindset which seeks wins for both sides (win-win) can often unearth new alternatives.

### **A perspective on human diversity in conservation organisations**

Diversity in the workplace is a very relevant element of organisational dynamics but is only quite recently becoming part of the discussion within conservation circles (Straka et al 2018; Loffeld et al. 2022a). The issue has been largely raised by interest groups (such as women's groups) or through critical appraisal of management during some of the more thorough professional evaluations of specific conservation programmes (Amavassee et al. 2022; Chesney et al. 2023; Nery Silva et al. 2022). The topic will be addressed in later chapters (See Chapters 7, 9, and 10) but is raised here as it is an aspect which needs serious consideration by any leader when they consider their own personal leadership ethos and the expectations which they place on their organisation (Kouzes & Posner 2007). At this stage, we are just scratching the surface of these issues – what does diversity in people mean for the ethos of you as a leader?

### ***The post-colonial paradigm***

Conservation grew out of a Western colonial perspective (from the 1800s through to the first half of the 1900s) which viewed wild landscapes, the indigenous communities living in those landscapes, and the wider world from a particularly 'superior' perspective (Adams & Mulligan 2012). Those people who were doing conservation tended to be well-educated professionals, usually from privileged backgrounds (or relatively privileged) and who had time for particular interests in wildlife. Aside from this inherent societal bias, the subsequent commitment to conservation by these nevertheless privileged individuals is of course to be lauded; they raised concerns, influenced political action, and in some cases intervened to save specific species or landscapes which would otherwise have been lost.

A generation or two later, the modern pioneers of conservation largely still grew up within this colonial cultural paradigm (in Europe and even in the United States, New Zealand, and Australia, where people from indigenous groups do not feature prominently in the published pioneer conservation work of the 1950s, 1960s, and 1970s), and they themselves trained and inspired people who are now still working in the sector, often in positions of leadership. The legacy of the colonial perspective is therefore inevitable in the conservation sector, whether we like it or not (Adams 2003). Even the current education given to the latest generation of professionals, now in their twenties and thirties, is shaped by the same educational model, albeit somewhat liberalised and informed by the presence of a myriad of international faculty and students.

The growth of national expertise and the academic institutions in countries with high biodiversity has improved global perspectives on issues of biodiversity loss. A number of

high-biodiversity countries have, in the post-colonial period, nurtured strong national interest and responsibility for preserving their own biodiversity and capacity in-country and are less reliant on outside expertise.

Yet, for all this change, the sector is still transitioning through a phase of ‘de-colonialisation’, which means that it is a leadership issue. How does this sit with a leadership ethos relating to management of staff, organisation of their work, and interactions with the communities in which you work? Do post-colonial issues shape your leadership approach?

### ***Ethnicity and diversity in culture and religion***

Barriers can be real and intended, real but unintended, perceived and intended, or perceived and unintended. The conservation sector needs to pay particular attention to this issue in relation to people from minorities and indigenous groups (Cronin et al. 2021). A leader needs to consider their personal paradigms about culture, ethnicity, and religious beliefs and should take consideration of the needs of others when formulating policy, procedure, and practice (Straka et al. 2018).

For example, in recruitment and promotion, does the leader ensure that recruitment takes consideration of potential cultural barriers (even if they are only perceived as barriers)? These barriers need to be avoided to ensure recruitment of the best and most suitable team members occurs. There is no point advertising a role if good local candidates do not apply because they feel that they will be overlooked anyway.

Are working systems, training days, and days-off (including vacations) aligned with people’s religious beliefs or cultural traditions? In situations where there are people from highly different liberalised cultures working in a traditional local landscape, do you expect your liberalised staff to adapt to local norms or do you expect locals to learn to accept the unfamiliar ways of outsiders? What will be the effect either way, on the morale of staff, or on the support of local people? How will you explain or discuss this to your own staff? These are all tests of your personal leadership ethos.

Language can also be a barrier to involvement and engagement. Sharing with external organisations can become problematic where language barriers occur (Lewis 1996). For local NGOs, it is outward language barriers to communication in written work that occur, having implications for accessing funding or external expertise, or building reputation and influence.

Deep-rooted belief systems in local cultures can offer opportunities and difficulties when designing conservation interventions. How does your leadership ethos navigate around these types of difficulties? Do you stick with methods that you know, or do you consider ethical, cultural issues when identifying what can be done to support species and ecosystems of concern? What are the implications for biodiversity in the long term or in the short term?

### ***Educational paradigms***

Whilst conservation work clearly requires interdisciplinary skills, it is traditionally considered a scientific discipline (Jacobson & McDuff 1998), so the workforce tends to be heavily loaded with graduates, postgraduates, and PhDs. Is this warranted in all areas? Some staff will be poorly placed in terms of opportunity to progress and receive training, particularly those from developing countries (Loffeld et al. 2022b), yet the skills in a diverse workforce, including traditional knowledge need to be better valued. Can the educational development of existing staff be the road to building capacity within your organisation, within your locality, within the region that your programme conducts its work? The Mauritian Wildlife Foundation enjoys a strong

representation of local professional staff through to the most senior leaders, but it required many years before the organisation was best placed to enable and nurture these opportunities for local people (the work previously being led by a predominantly international staff team). Some international organisations such as the African Cheetah Conservation Initiative have been purposeful from the outset in identifying local people to lead and coordinate national programmes. Other large NGOs have some way to go on this.

It is sensible to take time to reflect on the degree to which you value educational background of people (book knowledge, field experience, local knowledge, or traditional knowledge). Do your biases make sense in the context of the programme that you are operating? Do recruitment processes make assumptions which exclude potentially good candidates, such as where the post is advertised or the level of qualifications and experience required? Do arrangements in the organisation favour highly capable but less interested people or less qualified but highly committed people? Do you personally value the development of the capacity and capability of your staff?

A much more diverse approach to the development of people is needed (O'Connell & Carter 2022), and leaders need to explore how new types of networks for learning and sharing can be developed for themselves and their staff. This requires an open mind and a willingness to seek new expertise outside your own organisation to build greater capacity within. The advantage of increased and diversified capacity is that this creates a more resilient team, with knowledge which is more adaptable to new challenges or changes in circumstances.

### ***Gender and sexual identities in conservation***

People of certain gender and sexual identities may encounter barriers at work, and leaders need to be ready to provide support. Issues relating to the sexual identities of participants and professionals in conservation have barely been explored to date (Tulloch 2020). There is often an ongoing learning process, especially in locations where the local culture is more traditional or has particular biases (e.g. having men in positions of authority rather than women). Like any diversity issue, leaders need to tackle barriers to effective work and avoid risks to staff well-being (James et al. 2023). Leaders and colleagues who are allies in supporting people through difficulties are an important element of the team.

Women in particular suffer discrimination and harassment on a regular basis in workplaces (Rinkus et al. 2018) in all countries of the globe, without exception (see Chapter 10). A leader must not ignore this, nor should it be downplayed or trivialised. As a leader, your personal ethics around supporting colleagues, preventing harassment, and challenging inappropriate behaviour and discrimination should be keystones in your leadership ethos.

### ***Women in leadership***

Female leaders have particular challenges, now being surfaced in public discussion and recent research. Typically, women in leadership have to achieve better results and push for a higher profile than their male peers. Paradoxically, when they assert themselves more, they are criticised more for that behaviour than would be the case for male peers doing the same thing (Bowles & McGinn 2005; Eagly & Carli 2012). Women are also less likely to push for promotion, based on inherent hesitancy or from restrictions in personal life. These are real issues for women to navigate. Even if the barriers do not discourage women in leadership (and it probably *is* discouraging), these sorts of petty criticisms and indignities waste people's time when they could be doing the job of leadership.

Female leaders can provide particular insight and support for increased diversity in the workplace (Gupta 2019). It is unfortunate when some female leaders choose to copy the negative approaches of the ‘role models’ around them (usually male leaders) when those modes of leadership can be very outmoded and ineffective. Unless you have a really strong view of what good leadership looks like, copying another leader is perhaps best avoided. Any leader should seek an ethos that resonates with both the challenge of the job and one’s own personal values and priorities.

*Valuing diversity of thought and not just ‘people like me’*

Finally, we should consider whether we value diversity in thought. Conservation is a multidisciplinary activity. Aside from obvious differences in paradigms between scientists and social scientists, economists and police, within those disciplines, and the multicultural backgrounds of people of all nationalities, there are also people with different neurological perspectives (e.g. autistic spectrum). These differences should be valued and utilised and only recently are being considered within the conservation community (Trisos et al. 2021).

People sometimes operate in ways which may present difficulties to others. Whilst leaders may naturally challenge behaviours which violate the dignity of other people, accepting different people for their quirks and idiosyncrasies is also part of the job. Leaders may need to encourage colleagues to see the ‘allowable weaknesses’ in other people; Belbin (2012) uses this term to help people understand the value of different contributions (strengths and weaknesses) made by different people in groups. We are encouraged to overlook some distractions and irritations to allow a person’s contribution to shine. From a systems’ perspective, these irritations are ‘background noise’ (variability) in people’s behaviour. Our acceptance of difference can be achieved through deliberately transparent, safe conversations about our behaviours; what works and what doesn’t, what is helpful and what is not, what is needed and what does not matter so much. This is possible only in a high trust environment (Loffeld et al. 2022a), so immature discussions, teasing, and low-level bullying cannot be tolerated. However, if achieved, this type of clarity of discussion can be very beneficial and unthreatening. If your leadership ethos includes high trust and transparency as well as dignity for others, you may need to work actively to instil these values in your team.

**Case Box 4 Challenging the post-colonial paradigm  
(an anonymised example) in the Caribbean**

An NGO in a small island nation in the Caribbean has responsibility for marine and terrestrial conservation, including reserves on the many small offshore islands. It was funded by grant-funding bodies, typically big independent conservation organisations (labelled here as ‘BINGOS’) from North America and Europe. The BINGOS’ prior interest, commitment, and initiative had previously enabled researchers and conservation organisations to invest time and energy examining and addressing threats to the islands’ biodiversity (which included some rare endemic species). Typically, the international experts visited the islands, conducted work for a few months of a field season, and then left the maintenance work in the hands of this locally established NGO.

A local island national was hired to coordinate the in-country work, as the sole employee of the NGO. They had the support of local board of senior community members, but the work itself had to be conducted by volunteers; some from the community, local colleges, sometimes overseas students, and, on an occasional event-by-event basis, local schoolchildren and their teachers and parents. However, significant technical work (including invasive species eradication and endangered species monitoring) had to be conducted by capable volunteers. Several of these people showed capability and willingness to be trained, becoming a valuable resource to the NGO. However, they were not paid nor were they given opportunities to pursue qualifications in conservation or ecology.

Additionally, because the volunteers had limited hours to do the work month-to-month (due to their own personal paid-work commitments), they were limited in their ability to manage alien invasive species (which were able to access offshore islands on tourist boats). The good work from a previous season was often reversed by the time the next season of interventions were planned. In the meantime, after successful funding bids, the BINGOS sent in expensive professionals or contractors onto the island (at additional cost) to be housed for a field season (more cost) to conduct further surveys and interventions. Why was there no investment in local people? Why was there only one local professional paid conservation job? Why were local capable professionals on adjacent islands not hired while expensive US/European professionals did the work? What was the long-term plan for ensuring sustainable conservation work in that small country?

The underlying ethos of leaders making decisions in the BINGOS, whether conscious or (most probably) unconscious seems not to be helpful. A group of highly professional independent assessors reviewed this situation and shared the impression that local people considered that the international BINGOS were following, or at least very unhelpfully portraying, particular assumptions (an 'ethos' as it were) which suggested that:

- We (the BINGOs) in the United States/Europe have the best expertise and professionals ready and willing to travel.
- We have the best expertise back in the United States/Europe to follow through with the research.
- We have access to data and are trusted by funders to do a good job.
- Local capacity for conservation work is poor.
- Local people are too busy in other jobs to do professional work.
- Keen volunteers are available locally which is a cheap way of getting some tasks done.
- The project offers excellent fieldwork opportunities for our US and European students.
- We are in charge, and the local NGO can be thankful that we care enough to invest in it.

Whilst startling, and to be fair, probably only *unconsciously* held by the BINGOS, this narrative was apparent, and the actions and effects were real, not imagined. If there was ever an occasion when senior people should stop and reflect on their leadership ethos and consider how it manifests in behaviour, decisions, implications, and (in this case) costs, this case is a good example.

### **Chapter 4 reflection – a consideration of leadership ethos**

Consider elements of a leader's personal ethos raised in this chapter.

- Leaders who have clarity about their personal ethos are in a much stronger position to develop a purpose-led and value-centred approach to leading their organisation.
- Leadership ethos can include the following areas:
  - Purposefulness of the team
  - Work design (e.g. outside-in vs. inside-out mentality)
  - Focus on science and knowledge-based decision-making
  - Continuous improvement
  - Staff well-being
  - Community engagement
  - Political engagement
  - How you want to influence the focus of your organisation (or team)
  - The importance or value of partnerships and collaboration
  - How much independence your team members have
  - The balance of human needs (e.g. of local people) with wildlife needs
  - The value of diversity in the team
- The ability to verbalise your leadership ethos (which you may describe as 'the way I like to lead' or 'what is important to me as a leader') makes it easier for followers to understand what they are following.

### **Exercise 4 – personal development questions: understanding your own leadership ethos**

To draw together the key aspects of your own ethos, write down answers to the following:

(1) Personal leadership values

- What are my personal values as a leader?
- What values do I seek in the organisation(s) that I lead?
- What values make a difference to the way that my organisation(s) work and deliver results?

(2) What things (values or approaches) do I reject or overtly challenge?

- Behaviour and attitudes that I reject.
- Behaviour and attitude that I overtly reject.
- Whys of working which I challenge.
- Ways of organising work that I challenge.
- Ways of organising people that I challenge.
- Administration and rules that I challenge.
- Assumptions that I challenge.



- (3) What are my preferred ways of working?
  - Am I collaborative or do I prefer working/planning/analysing solo?
  - Do I consult with others?
  - Do I work alongside others?
- (4) What are my expectations of staff, volunteers, and professionals I work with?
  - What are my expectations on delegation, meetings, goals, problem-solving, and ideas?
  - How would I work with people in informal discussions, 1:1 meetings, appointments?
  - How do I manage discipline?
- (5) What is my mode of operation in emergency or extreme circumstances?
  - Do I direct everything?
  - Do I use pre-planned protocols?
  - Do I use planned methods of mitigation?
  - Are people clear of their responsibilities (and how)?
  - Do I stick to my values or do my priorities (and priority values) change?
- (6) What type of organisation do I try to lead and develop?

Describe what you would see, what you hear, how people behave, how you behave; their values, working principles, and ways of doing things, how they work with other organisations.

*You will have a chance to revisit these themes later in the book.*

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## **Part II**

# **Four areas of profound theory**

Knowledge, psychology, systems, and variation



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## 5 Using the theory of knowledge in conservation management

### Personal Perspectives – Introduction

The philosophical study of epistemology (Theory of Knowledge) has a long history, covering the nature, origin, and scope of knowledge, justification, rationality of belief, truth, and perception. Some people do not have the time, nor inclination, to pore over philosophical concepts like these. By comparison, however, few would ignore a philosophical topic like ethics as having a practical part to play in conservation management. So let's equally tackle the philosophical concept of knowledge for its practical implications and the tangible benefits in work, our use of time, and how we make decisions. If you are a pragmatist, and less inclined to explore this, consider a few questions.

- How does the way that I perceive data influence my decisions, and is that always helpful?
- Do others, such as those in communities with different cultures, see things the same way as me?
- If an urgent situation forces me to make a 'gut' decision, am I usually comfortable with this?
- Do I find it easy to justify a decision, particularly if the outcome is risky?

If the answer to these issues is 'probably not', then this chapter is likely to be useful. Conservation organisations face challenges of uncertainty, unpredictable outcomes, and unclear or incomplete information, and many influential factors are outside our control. During the 2020 Covid-19 pandemic and ensuing lockdowns and economic downturn, most organisations suddenly faced these factors overnight: shops, factories, hairdressers, hotels, and schools faced complete uncertainty on when to reopen, what they could (or could not) do, what customers wanted, what grants were available, how to work remotely, who they could layoff/furlough, how to protect staff from infection. Uncertainty of this type was already a common experience for many conservation organisations for decades.

My observation is that this uncertain context in conservation may have led to organisations utilising a seat-of-the pants approach to management and a propensity to engage leaders who could adapt 'on the hoof' as circumstances change. Unfortunately, these types of people often value 'firefighting' as their normal mode of operation, which does not enable organisations to progress or to establish predictability and sustainable achievement. Firefighting may make things worse rather than better. I have worked with control

charts methods since the late 1980s to enable improvement and know there are plenty of practical, well-established, helpful, and yet rarely utilised, alternative perspectives on knowledge and how data can be best utilised. Leaders need to learn these better ways of working and apply them in conservation.

### **Developing a working understanding of ‘knowledge’ and its complexity**

Natural sciences historically have developed on the basis of enlightenment through establishment of concrete facts, based on devising hypotheses and testing them through collection and analysis of data. This convention of knowledge has been the basis of conservation science. That said, conservation biology engages in a complex world of wicked problems (Game et al. 2014), and this complexity has required conservation science to draw on disciplines outside the natural sciences, including economics, social sciences, and psychology (Saunders 2003; Copsey & Black 2018).

If you are a pragmatic leader, before you switch off, consider these following aspects of knowledge:

- What do your team think about your performance?
- What do your colleagues in partner organisations think of your leadership?
- Do your community leaders trust you?

Many of these aspects of work require *assumptions* which are perceptions which are often far from concrete in their foundations, yet *they have a fundamental influence on work*. Such ‘flimsy’ knowledge affects work, and we have not yet begun to discuss the less familiar aspects of the landscapes, ecosystems, species biology, market dynamics, political biases, and hidden agendas that are part of day-to-day conservation activity. As effective leaders, we need to have the mental capacity (capability and competence) to juggle with these varying degrees of knowledge and still be able to make coherent decisions, solve problems, and encourage the people around us.

Further to this, within the conservation sector we can be required to explore cultures, traditional knowledge, history, philosophy, and aspects of management which, for natural scientists, means being drawn into realms which deal with forms of knowledge which are less familiar than the facts, proofs, and hypotheses encountered in the sciences. Even as new advances in areas of social science and econometrics draw in possibilities of more concrete data sets, it remains inevitable that conservation programmes will encounter less well-understood areas of human behaviour, societal expectations, and sociocultural dynamics.

It is not surprising that an interdisciplinary approach has emerged as being the best method for addressing, understanding, and solving complex conservation problems (Mallinson 1986; Clark et al. 2001; Fox et al. 2006; Bunnefeld et al. 2017). This places new expectations on conservation practitioners, in that they are likely to need to encounter people and issues less familiar than traditional notions of conservation work. As a leader, you are also likely to need to lead and collaborate with people who will hold a different disciplinary perspective to yourself. They could value aspects of knowledge upon which you, by contrast, may hold little value.

Some humility is required on the part of scientists in this respect. Kant’s philosophical observation was that we can never know ‘reality’ since it is, in itself, a phenomenon dependent on the mind (Lewis 1932 p154). To put this in a nutshell, for our normal understanding of scientific



knowledge, essentially as scientists, for any phenomenon all we can say is ‘this is what we know at the moment’.

The principles which we need to get clarity on are:

- What knowledge would be useful?
- What range of types of knowledge is available?
- When do we need to act on the knowledge (e.g. make a decision)?
- What risk should be considered when applying knowledge (to a decision)?
- What is the value of knowledge, and can it drive improvement (i.e. conservation outcomes)?

### **Temporal and spatial dimensions of knowledge**

Most conservation practitioners (certainly leaders) have a background in science (Jacobson et al. 1998), so in view of their educational background they usually prioritise dealing with facts and following evidence-based decision-making. While commendable, there are drawbacks associated with this bias. One of the particular features of conservation work is that it involves handling decisions and carrying out action in the light of uncertain or incomplete knowledge (Black & Copsey 2014), and circumstances commonly arise where hard facts are not available, requiring leadership and decision-making in the face of uncertainty (Martin et al. 2012). This contradicts the desire for more refined, definitive knowledge required by biological science. A conservation professional may either become fearful of making a decision without data, or they take too long seeking data to inform a decision which is critical in the moment. Neither helps, so a different management mindset (or if you prefer, an alternative set of mental expectations and assumptions) is needed.

The uncertainty of knowledge over time and across large and variable geographic ranges covering ecosystems, species, landscapes, human communities, geopolitics, climate change, and the like means that conservation practitioners operate under greater uncertainty than many areas of human endeavour. The situation is certainly true in cases of poorly known or rarely encountered species, particularly where they have retreated to a suboptimal existence in unfavourable circumstances that could not be considered normal for that given species. In sum, the specifics of species biology, ecology, and population status can involve many unknowns. However, the same is true at the other end of the scale, where we consider the impacts of human behaviour (such as market demand for natural resources), where the outcomes can be equally unpredictable and, frankly, in some instances quite baffling, with human beings making ‘irrational’ decisions and demonstrating ‘illogical’ behaviour.

### **The continuum of knowledge**

Human knowledge of the physical world runs on a continuum (Black & Copsey 2014). Scientific knowledge, for example that pertains to a species or ecosystem, may range from wholly unknown elements, to belief (on the part of scientists or local people), to the perceived (from general recollections of anecdotal observation), to partially known (suggested by data), to the fully established fact (Lewis 1932; Godfrey-Smith 2003).

From an objective point of view, science is not interested in belief, faith, or anecdote. However, in conservation, at an operational level, we sometimes have to reside in those less easily defined areas of knowledge (Jones 1999). This is one of the aspects of the science–practitioner divide (Sunderland et al. 2009; Gardner 2012). The conservation practitioner sometimes has to follow gut instinct (a form of belief) or apply a method ‘in good faith’.

Scientists sometimes suggest that for some data we can operate with relatively secure knowledge (i.e. observations in terms of confidence intervals), for example how many deer live in the wood. This assertion is not entirely well-founded. In reality, few scientifically asserted facts are truly ‘concrete’ (in layman’s terms) in the dynamics of natural systems. For example, the very question ‘How many deer live in the wood?’ provides an answer no more certainly known now than in one hour’s time, two weeks’ time, or two months’ time. Of course, we are able to measure, tag, and count every deer with a 100% check on coverage and devise a total population, for example 153 deer. This still leaves us with two potential complications. One is a sampling problem, since no check is infallible, or as Deming (1982) would say, a 100% check is not 100% accurate. However, second to this, ecosystems are not static; animals and plants (especially if seeds) may move in and out of the study site, be predated at any given moment, old or sick individuals die, young are born. Bodies decay, are eaten, carried away or consumed by fire, flood, or landslide. If we measure against a given question last year, we cannot be sure of the scientific accuracy or relevance of that result today. Even then, when we measure the presence of deer in the woods, detectability to humans is affected by the animals’ visibility, variation in landscape and vegetation, and weather, as well as nuances of measurement technique, technology, and error.

In natural sciences, we work around this problem by using sampling schemes and confidence limits, as well as specifying any underlying assumptions, to provide reasonable levels of certainty. Even if the most concrete fact is rarely concrete, we do have reliable scientific knowledge that can be considered by any reasonable consideration as ‘fact’. From an operational point of view, we can work comfortably with data that is ‘good enough’.

Essentially:

*conservation leaders must be comfortable with incomplete knowledge as a fact of life.*

When we get down to working with specific species, or in particular landscapes, the various points across this continuum of knowledge (from unknowns through to knowns) become obvious. With poorly understood, recently discovered, cryptic species our knowledge base tends towards the less definitive end of the knowledge spectrum. The landscapes and habitats in which these species reside will add to the complication (Collen & Turvey 2009). For example, newly discovered or rediscovered species occur in situations and locations that are more difficult to access or survey, such as tropical and subtropical forests of South America, Africa, Madagascar, India, and New Guinea (Scheffers et al (2011). In Europe, the olm (*Proteus anguinus*), an aquatic amphibian of the deep cave systems of the Balkan region of east central Europe, lives in locations accessible only by specialist, highly experienced cave divers during time-limited surveys in difficult conditions. Most survey work is conducted by indirect measures such as environmental DNA sampling and analysis. When seeking observations in less demanding but sparsely populated locations, where few people are present (perhaps local pastoralists, tribespeople, or even transient tourists) anecdotal and inconclusive physical occurrence data, including misidentification, can cause complications in decision-making and practice (Roberts et al. 2010). At this uncertain end of the scale data sources include anecdotal accounts, rumours, and traditions that scientists sometimes have to draw upon, for example in the search of the range of rare species (Black 2020).

How do we as conservation professionals wishing to lead in a science-informed or evidence-based manner get our heads around this? We want to gravitate towards ‘facts’, but this may slow or paralyse decision-making or at worst create a ‘them and us’ divide with local people who consider scientists as disrespectful and not worthy to trust with traditional observations and knowledge.

The saving grace in all this is an epistemological perspective, namely the Theory of Knowledge (Lewis 1932), which recognises that there is no such thing as an inestimable fact. Leaders

need to avoid the maxim ‘if there is no evidence, there is no fact’, since this observation is merely an opinion. A fact has meaning only under an operational definition, including for example, the metrics used to measure the fact. Too often, the operationalised definition is poorly or wrongly diagnosed, even in scientific circles. At best we recognise the assumptions under which an observation is considered.

A change in perspective requires humility. In the past, scientists have been quick to reject folk tales about unknown animals, yet recent species ‘discoveries’ by science are often prompted by existing traditional knowledge. Forty per cent of primate discoveries (as new species) since 1980 were informed by local knowledge (Rossi et al. 2018). We need to dispose of the often-misquoted homily that the plural of anecdote is not data. More accurately, it was suggested that ‘the plural of anecdote is data’ (Noll 1980), and scientific use of local knowledge and anecdotal reports by people living with less well-known species makes this ring true.

As well-informed conservation leaders, juggling many sources of information of varying quality and completeness (see examples in Leeney 2017), we need to become comfortable with notions of ‘reasonable belief’ as well as scientific fact. The Theory of Knowledge helps us to live within this slightly uncomfortable reality (Black et al. 2013). When we are required to use vague information, *the purpose of the knowledge sets the agenda*. If we have to make a snap, emergency decision we can work on patchier knowledge, essentially in ‘good faith’ (i.e. actually working in the realms of belief rather than fact). Thereafter, the aim is to build knowledge upwards, from the vague towards the strongly defined fact. We should avoid scientific bias in assumptions about acceptable or unacceptable information lest it causes us to make incorrect judgements or failure to act. Scientifically justified judgements or assessments of feasibility (e.g. locations for reintroducing an endangered species) can be changed in the light of social knowledge or assessment (Jhala et al. 2021). This is important where resources are limited or constrained (whether financial, infrastructure, or availability of biotic elements such as limited suitable natural habitats) for economic, political, social, or physical reasons.

### **Details and the big picture – operational and strategic interactions**

A vital leadership capability is being able to switch between understanding details of situations and then stepping back to see that detail within the wider picture and context (Black et al. 2011). This area of competence has been given the label ‘helicopter view’ and is about being interested in both strategic and operational issues. The importance of this mental capability cannot be underestimated. A leader who can get a handle on what people are dealing with and then being able to place it in wider context (beyond the insight of people working in the trenches) is one of the key areas of value that a leader brings into their organisation. Just as the capacity in highly intelligent people is the link between left and right brains, so the thinking capacity in the best leaders is to link the operational and strategic elements of the organisation into perspective.

### ***The Precautionary Principle***

The Precautionary Principle (Foster et al. 2000) is now well established in environmental thinking. Precaution suggests that *where an action is expected to have a negative consequence for a system then it should be rejected*, but where likely to have *an acceptable impact, should be undertaken*. This principle is important when we do not have concrete knowledge about the outcome of a situation one way (best case) or another (worst case).

Precaution is an important concept in management decision-making in general. The aim of precaution is to avoid a negative outcome for the species or ecosystems of concern. In

conservation, some inbuilt conservatism in decision-making has value, since extinction is irreversible and recovery impossible. This does not mean a conservative approach in all instances, such as conservatism based on economic constraints. Economic limitations are NOT reasonable cause for action or inaction since resources, although finite, are actually interchangeable. Finances can be redeployed, withheld, and redirected. Species are not interchangeable once extinct; ecosystems are difficult to recover once degraded. The balance within *the Precautionary Principle tips towards an over-riding priority for species' needs or environmental considerations*.

The Precautionary Principle is not reason to accept an absence of data but a prompt to seek better data to inform future action (Black et al. 2013). An example is the prompt given by a 'data deficient' categorisation under the IUCN Red List (IUCN 2023). Precaution buys you time to examine the situation further and make more sophisticated decisions when new knowledge can inform action.

### ***Principle of 'acting fast'***

The risk of extinction should not be accepted if there is a reasonable level of doubt. This perspective enabled previously unconsidered innovations in captive species recovery for the California Condor in the 1980s (Snyder & Snyder 2000). Current conservation approaches have learned from this to the point that the principle of 'Acting Fast' for species under threat is now much better understood: action should be applied, even in the absence of a sophisticated plan. The opportunity to hatch a clutch of eggs under protected situation at short notice has been applied to species such as the Madagascar Pochard (Deeming et al. 2015) and Maui Parrotbill (Mounce et al. 2014). The reverse has also occurred, namely a disastrous lack of action, most notably with the unexpected availability of a captive female Yangtze river dolphin, the failure to pair the animal with a male of the species which was already in a captive facility (Turvey 2009). The species has since gone extinct.

The principle of acting fast has been vital in addressing immediate threats, whether oil slick, bushfire, arrival of invasive predator, poaching, wildlife crime, or an alien infectious disease. An action-focused approach has been applied in the removal of amphibian species from the wild in the current chytridiomycosis crisis of the twenty-first century, with a similar approach taken when new market demand within the pet trade threatened remaining Ploughshare tortoises. Good decision-making around 'acting fast' has also proven vital in the case of the orange-bellied parakeet in Australia (Martin et al. 2012), where the wild population was brought into an intensive captive breeding system to enable its survival.

### **Opinion, expertise, and authoritative knowledge**

An important competence in any leader is having the humility to know when you need the input of experts to assist you in decision-making or implementation (Black et al. 2011). However, when seeking expert advice, the leader needs to be clear about the expertise and expected knowledge that are brought into a situation. Are you after the expert's *knowledge* (which may be informed, as discussed earlier on a sliding-scale based upon availability of data in the current situation) or their *opinion* (based on pre-formed expertise derived from other situations)?

Expert judgements can of course be very helpful when resources are stretched, or a fast response is required, and a shortcut 'best judgement' is needed (Burgman et al. 2011). However, some caution should be applied when considering expert opinion since bias can be present in many forms (McBride et al. 2012) and furthermore, be present in both individual and group

decision-making. Expert discussion processes allow consensus to be achieved more effectively, although there is a trade-off in time required, whether conducted face to face or not. There is also a risk of bias and agreement across peer groups rather than with the issue at hand (Burgman 2005). Methods to calibrate opinion are sometimes necessary (Martin et al. 2012). At the very least a structured group decision-making process is most useful for collecting views of multiple experts to eliminate bias and best understand the trail of thinking within an expert group (Black 2018) as discussed in Chapter 10.

A difficulty with expert opinions is that the approach tends to identify the expert (and their ego) with the opinion. I have shared discussions with renowned experts who have provided, with heavy assertion, opinions which ignore the basic facts which are known for a given situation. Unless a leader is consciously humble (by effort or well-embedded habit), they can be tempted to miss the point. This is why processes of problem-solving and decision-making need to be clearly understood and followed (see Chapter 10), especially with complex important decisions. Any decision-making rationale has to follow the best information available, rather than become too value-laden (noting this is inevitable to some degree in conservation), and certainly must avoid ego-driven assumptions.

Burgman discusses the use of experts in some detail (Burgman 2005). The hope when dealing with environmental problems is that we can draw on a decent base of knowledge from a range of experts. When discussing risk assessment, Crawford-Brown (1999) suggests direct empirical evidence, extrapolation (observations outside the range at hand), correlation (statistical association between measures), theory-based inference, and expert judgement can be combined. However, in light of these suggestions Burgman (2005) is realistic enough to state that most of these options are not available in environmental contexts, so expert judgement often comes to the fore.

Depending on the issues at hand, experts may converge or diverge in opinions. Consistency in opinion will depend on the evidence under assessment. Burgman (2005) makes the pragmatic suggestion of involving fewer experts to enable less divergence of opinions. That said, picking a diverse if smaller group of experts would be sensible. Knowledge attainment by committee is a problematic approach to management and is rarely seen in other operational situations.

A far quicker and arguably better-informed process would involve small experimental approaches which provide data, which can be assessed for upscaling, or rejection, and a new approach or the upscaled approach tested and onwards in a sequential manner. In this way, with data at hand relating to the current context, the manager of the process becomes the expert. This data-driven approach, essentially following the ‘Check-Plan-Do’ cycle (discussed further in Chapter 6 – check what is happening; plan what should be done next; implement it; check what is happening; etc.) is less commonly used as a management technique in conservation but is certainly one which needs further exploration and utilisation.

## **Knowledge for improvement**

Conservation work is generally focused on identifying potential improvements and implementing changes to achieve improved outcomes. This can be manifest in either the reduction of threats, degradation in ecosystems or habitats, or declines in populations, or alternatively, managed improvements in habitat quality, range, human behavioural change, or similar.

Scientific models tend to test the effectiveness of an intervention in terms of ‘before’ and ‘after’ as measured by particular indicators (population size, vegetation cover, pollution levels, hunting offtake etc.). From an operational and research perspective this seems to be an efficient approach, but it carries a number of weaknesses, most particularly in that natural systems tend

to change over time, have inherent fluctuations and cycles that may not fit the measurement window, and the changes in data may not be apparent until some time after an action has been implemented.

Current large-scale biodiversity status assessments such as the IUCN Red List Index and the Living Planet Index are conducted on any one species across relatively long intervals, so these assessments inherently function as retrospective late-warning indicators (Schmeller et al. 2018). Furthermore, in practice, conservation interventions, even at range-wide scales, are usually dependent on specifically designed approaches which are applied in local contexts (landscapes, human activity, threats, presence of other species, and variability in habitats). The extent of information in many instances is often fragmented, yet the need to make well-informed decisions is no less important. This mismatch between the needs of practice (i.e. making decisions and understanding the effect of interventions) and the needs of science (well-designed and replicable studies accounting for all necessary variables) are separated by the so-called science–practitioner divide (Travers et al. 2019).

Rather than agonise over this mismatch in philosophy, as practitioners, conservation leaders need to devise ways to reduce the gap. One first step is to worry less about there being a divide and consider it more as a *knowledge-action gap* (Roche et al. 2022). This change in perspective allows us to address issues to reduce the gap and requires two steps: (i) identify what knowledge is required and (ii) identify actions that can follow the new knowledge. If both are addressed, we move towards science-informed action, which moves fast enough to address the current pace of threats to biodiversity. Conservation leaders have the responsibility to explore better *early* detection of signs of critical changes (good or bad) to support proactive interventions. This means learning new methods not routinely used (Travers et al. 2019) nor taught in graduate or postgraduate conservation science but which are established in other sectors of management.

### ***Knowledge of species ecology and biology***

An essential part of the conservation leader's toolkit is sound knowledge of the ecology and biology of the species and ecosystems of concern (C. Jones, personal communication). The leader may not have all this information to hand but nevertheless needs to ensure that it is possible to access accurate insights. This makes obvious logical sense in terms of forming plans, but with endangered species our current knowledge might be skewed due to circumstances in the habitats and threats they presently face.

Some endangered species survive in less preferable marginal habitats simply because those locations are free from direct threats. Examples include the Mediterranean Monk seal (*Monachus monachus*) which birth pups in underground caverns even though this poses risk of pup deaths due to low ambient temperatures (Gucu et al. 2004), endemic birds in Hawaii which have moved to higher altitude habitats clear of avian malaria (Young et al. 2018), and similarly the Mauritius Fody (*Foudia rubra*) surviving in exotic *Cryptomeria* conifer for better protection against alien mammalian predators compared to more productive native habitat fragments (Safford & Jones 1998).

Basic understanding of population status, range, and threats makes sense only in light of sound knowledge of a species' ecology and biology (Jones & Copsey 2018) or at a wider scale knowledge of ecology and biology of a community of species in an ecosystem. A change in range and behaviour has implications for future conservation management actions and for future sustainability of a species or ecosystem. Where a species preferentially occupies a degraded habitat, it is important to avoid assumptions that this is the preferred option in its future conservation.

### ***Knowledge across geographic space***

Geographic studies are useful in serving to support prioritisation of effort, focus of action, and opportunity for innovation (Black 2020). This is particularly important when considering global and regional issues such as climate change threats to species range, invasive species encroachment, migration and seasonal range changes, water catchments, and land use changes. Many spatial data sets also relate to temporal changes to give an understanding of patterns of movement. Geographical knowledge is important in defining the boundary of work for your organisation. Whilst this type of information can be obviously gained from maps and GIS analysis, the challenge for managers is to keep geographical issues in mind when analysing other types of monitoring and evaluation data.

Geographical data can detect underlying problems in a given system. For example, an analysis of the population status of the Palila (Pungaliya & Black 2017), an endemic Hawaiian honeycreeper, indicated the number of individuals in the population in decline, suggesting a need for population management (e.g. supplemental feeding, reintroduction, or similar intervention). Strangely, however, the stability of that population (inferred by System Behaviour Chart rules) had increased. This anomaly is explained by the birds retreating to the most suitable remaining habitat, stabilising their survival, and making the population size less variable year on year. The conservation action needed to improve the situation is a very different strategy, namely to increase the geographical area of high-quality habitat (i.e. *not* population management) so that population recovery can follow its natural course.

This example of available knowledge is an important part of the leader's toolkit. Knowledge is more than mere information. Knowledge gives a leader insight and enables a move away from any personal technological or methodological bias (e.g. a preference for interventions to save species populations or an observed capability in the team to carry out such interventions). Instead, a leader should look at the requirements of the system (as illustrated in the Palila case, recovery of the species is best achieved by a methodological switch to habitat recovery).

### ***Knowledge of systems***

Most modern conservation projects tackle wide systems of species, habitats, landscapes, human communities, infrastructure, and economics. This requires knowledge and understanding of project impact on the full array of issues (species status, threat status etc.). Figure 5.1 offers an example of several data sets indicating the status of a population system. The same concepts can be applied to obtain knowledge of other systems, and in conservation this particularly concerns ecosystems. If we understand key indicators in an ecosystem (e.g. habitat quality, species presence, population status, ecosystem functions) we can develop chart-based monitoring and evaluation systems to explore:

- (1) The status of those systems (whether stable, in decline, or improving)
- (2) Whether changes relate to specific intervention taken to conserve those systems

Whilst these two expectations are considered the 'holy grail' of conservation science, and may in some cases be unachievable, or at least controversial in terms of scientific proof (as was the case for climate change effects for many years), as a conservation practitioner there are very reasonable and pragmatic ways of making this type of data analysis useful. They are a particularly important methodology to enable predictive conservation (Travers et al. 2019) and so better enable understanding of the challenges and opportunities for useful conservation interventions.

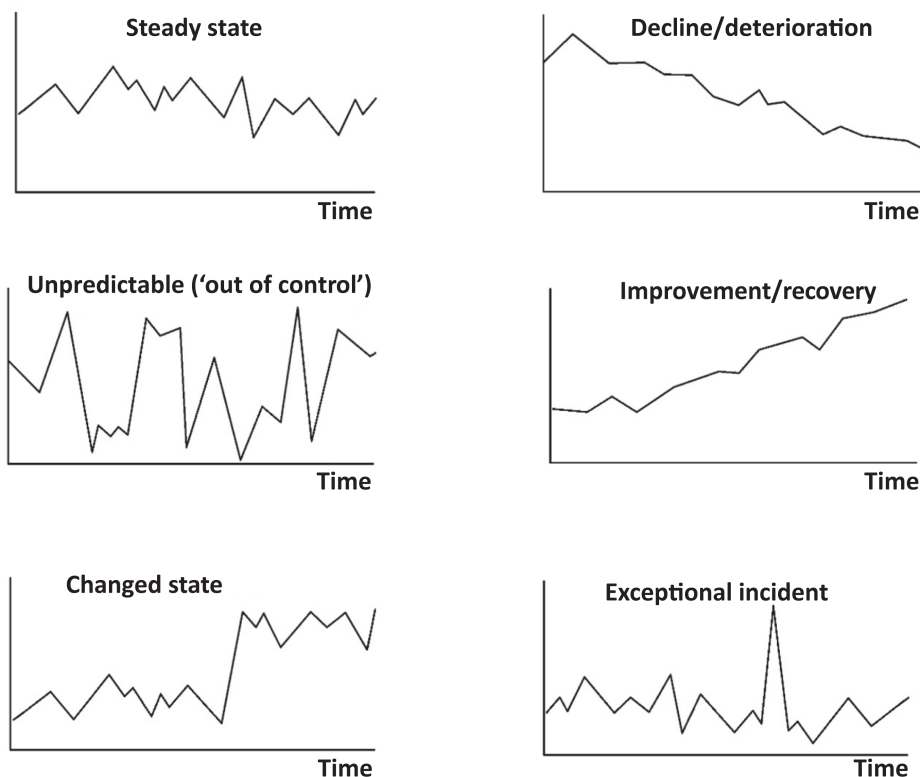


Figure 5.1 Differing states of a system. In conservation both ‘decline’ and ‘recovery’ are familiar, but understanding the differences in all these states is a vital competence when leading interventions.

If reasonable metrics of a conservation system are identified, then analysis of data over time and comparison with reasonable statistical rules can allow sequential hypothesis testing, relating a new data point to previous data points (Wheeler 2000). This concept will be explored in Chapter 6. If signals in the data suggest changes in the system, then actions can be implemented (or withdrawn), and continued monitoring can explore the subsequent effect. This enables precautionary testing of whether interventions work or not and whether they have the right effect on the system of concern.

This discussion represents an introduction to these ideas. Chapter 6 explores various methods for innovative analysis of data for gaining new insights into systems to inform problem-solving, decision-making, goal setting, and project planning. In the most extreme examples, an understanding of species ecology and ecosystem function can drive innovative use of *analogue species* in recovery efforts. A good example is the use of the Aldabra giant tortoise (*Geochelone gigantea*) as a grazing species on Round Island, Mauritius (Jones & Copsey 2018). Tortoises were introduced to take the role of extinct Mauritian endemic tortoise species, grazing on plant species and enabling natural germination of endemic plants and trees in the landscape. These tortoises (or at least their digestive tracts) have also proven important in the germination of endemic ebony wood seedlings (Griffiths et al. 2011) on another islet, Ile aux Aigrettes.



## Knowledge of data variation – understanding systems over time

An important aspect in understanding system dynamics involves understanding changes in data over time. This type of knowledge helps us to understand the behaviour of the system (population dynamics, ecosystem function, levels of threat, and so on). If you are leading a conservation project, you need to understand the systems that you are working within. Systems of concern include ecosystems, population systems (for an endangered species, or a prey species), disease systems (for emerging infectious diseases), economic systems (e.g. a market for wildlife trade), social systems (e.g. community co-management), or agricultural systems. We seek improvements in the hope that they benefit species and ecosystems which as living entities (or communities of entities) themselves cannot tell us if we are making a difference or not. If we were conducting healthcare, we could at least ask patients if they felt better. If we ask many healthcare patients, we get a good understanding of whether healthcare is working. Understanding variation in key data in this way is the next best thing, and in conservation it is largely the *only* ‘next best thing’.

Understanding variation in key conservation metrics provides insights into what I term “the voice of the ecosystem”, namely, how the system is behaving (Travers et al. 2019). This is what *data is telling us* is happening rather than us having to rely upon more arbitrary dissections of data based upon other priorities, opinions, assumptions, or methodological preferences. The beauty of exploring variation is that it is the data that is telling us what is actually happening.

A system can be in one of four different states (Figure 5.1) as measured by a number of parameters. Parameters (metrics) will vary according to context but, for example, the status of an endangered species could be measured by population counts, the number of breeding pairs, range, the number of accidental deaths, and so on. Where a number of metrics are used the combined ‘picture’ of the state of the system will be taken from the signals shown in all metrics of interest.

- (1) Steady state – where the parameters of the system vary within predictable highs and lows.
- (2) Decline – where metrics indicate the system is in a pattern of deterioration over time.
- (3) Improving – where metrics indicate the system is recovering to a higher state.
- (4) Unpredictable (essentially ‘out of control’) where the highs and lows could be catastrophic.
- (5) Changed – where a permanent shift is established (e.g. increased poaching for pet trade).
- (6) Exceptional incidents – where a one-off event occurs changing the status momentarily, then disappears.

In natural systems, we need to know the state of our system of concern, and we also need to know if that status changes. A *steady state* system that starts improving is interesting (especially if we have deliberately enacted something to improve it). A steady state system that goes into decline is a concern, as is a steady state system which becomes unpredictable. It is worth noting here that there is no such thing as ‘equilibrium’ in the open systems encountered in wildlife conservation and human social systems. Equilibrium state is the preserve of the laboratory closed system (and even there will be shifted by factors like ambient temperature, humidity etc.).

*A stable natural system is considered at ‘steady state’, where highs and lows are predictable*

Management strategies in each situation will be very different, even if the purpose is the same in each instance (e.g. recovery of an endangered species or habitat), and understanding these differences in strategy is central to effective conservation leadership. In conservation, we are

usually involved with effecting change and improvement. For example, with a measurable system of threats, we would be seeking an improvement shown as a decline in threats. A successful outcome of an intervention would be a permanent change as seen in the ‘Changed State’ example in Figure 5.1.

It is important to understand that a *stable system* is useful (because it is predictable), but it is not always optimal. For example, an endangered species population may have retreated to a marginal habitat and stabilised but not be truly healthy and thriving. It may also be so small that it remains under fundamental threat from an exceptional occurrence (e.g. hurricane or volcanic eruption).

**Exceptional occurrences** in an otherwise stable system are important. If we respond to them incorrectly it can generate instability in the system (making things worse). A correct understanding of the state of the system on which you are working is a vital component of a leader’s knowledge.

### **Avoiding misjudgements: Type 1 and Type 2 errors**

Two errors of judgement can occur when examining data familiar to anyone who has studied statistics (Wheeler 2000). These are errors of perception, seeing an effect or ‘signal’ in the data when there is no such signal (Type 1), or *not* seeing a ‘signal’ in the data when one actually occurs (Type 2). Clearly, in conservation, where we are looking at making positive changes or reversing negative changes in systems – falling foul of either Type 1 or Type 2 errors is a major problem.

- **Type 1 error – the false positive:** This is when you identify a change (or ‘signal’ in the data) when in reality no change has occurred, since the variation is just due to noise (unattributable factors). This is important if you assume an intervention to be effective when it is not (you will waste resources doing the same thing again in the future). In performance management this would look like attributing ‘great’ results to a programme when there has been no effect at all. The problem with this is that if next year’s results are ‘lower’ (similarly just down to noise), you are locked into having to justify a ‘bad’ result! A typical type 1 error would be to take any peak or trough in the ‘Steady State’ example in Figure 5.1 as a signal of good or bad performance.
- **Type 2 error – the false negative:** This is when you miss a real signal in the data, when you fail to detect an actual change. This would be typical of a decline in a species which is not noticed until it is too late, and the species has fallen to extinction. A science-based programme should be really good at detecting signals because this will inform good practice. A typical type 2 error would be to miss a downward decline or an improvement (Figure 5.1). When *exceptional* occurrences arise (see Figure 5.1) we need to decide if this is a one-off outlier or an incident which might give insight for changing the system. This point of decision is discussed later.

Clearly, the person making a deduction about performance on a point-by-point basis is at the mercy of chance. A lucky result (‘a fluke’) that appears in your sample may be erroneously considered definitive when it simply occurred by chance (Type 1 error), whilst a real effect may be masked by the other data in the sample (Type 2 error). Neither situation is helpful. Fortunately, management tools are available to help us avoid these predicaments. Better than that, if we get good at detecting real signals in data, we become able to design interventions that learn essentially from themselves, in other words the data informs our practice. It also helps us to avoid

incorrect strategies of improvement. **Other errors of attention** have been suggested, although they are less about statistics and data than they are about research focus.

In informal classification, a **Type 3 error** is ‘a good solution to the wrong question’. This could be identification of a problem, but prescription of the wrong intervention, or, perhaps, intervening too late. Building a fence to protect a habitat when a species is in fundamental population decline (i.e. remaining few animals actually need breeding in captivity) would be an example. Another example would be population monitoring of a species that is in terminal decline, without any intervention. This type of error has sadly been documented in conservation, so is one to keep in mind to avoid.

Again informally, a **Type 4 error** involves selecting the wrong questions for intensive investigation. Regrettably, I suspect this occurs in conservation. I know of colleagues investigating human–wildlife conflict with flagship species, only to identify that there is no real conflict problem for local people with that species but instead a problem with an entirely different, ‘unimportant’ species (which does not attract funding). In a nutshell, a type 4 error occurs whenever someone wants a question answered even if it is not a relevant question (perhaps due to self-interest, ego-driven preferences, or to defend or justify previous decisions or current priorities).

### **Methods to avoid misinterpreting data**

Management methods to help avoid errors of perception are available involving the analysis of longitudinal data (temporal and sequential data) at an operational level. One set of straightforward analytical methods for managers arises from the umbrella discipline of Statistical Process Control and are potentially useful in environmental management (Burgman 2005; Travers et al. 2019).

The methods have been dubbed ‘Systems Behaviour Charts’ or SBC (Black 2015; Black & Leslie 2018), a term which signifies the charts’ ability to demonstrate the general behaviour of a system (e.g. an ecosystem, a landscape system, a population system, a threat system, a social system) through the use of one or more indicators measured over time. Behaviour of the system is observed in patterns in data points relative to the mean and calculated natural limits for data derived from the system.

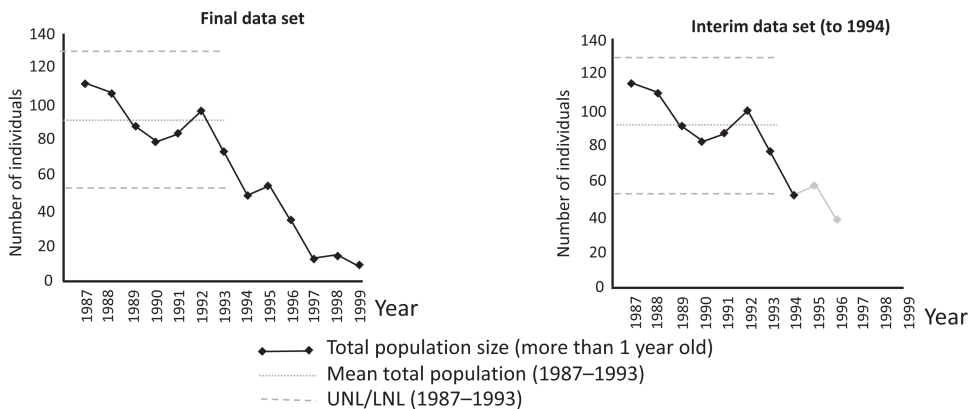
These methods will be discussed in Chapter 6, however by way of introduction we can consider the case study shown in Figure 5.2 and introduce the idea of power obtained from temporal data sets, even if data is available only in a relatively rudimentary, unsophisticated form.

### ***Knowledge of systems behaviour to predict population decline***

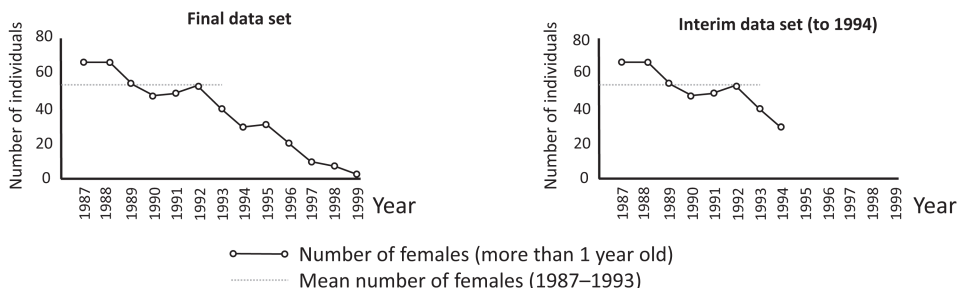
For a given population of ground squirrels in Idaho (Sherman & Runge 2002), annual counts of population numbers were methodically recorded by researchers on an annual basis over an extended study period. The data was not plotted on a visual chart by the researchers themselves but for the purposes of illustration is presented as essentially two sets of population counts (sections ‘a’ and ‘b’ in Figure 5.2).

The charts (Black 2015) enable visualisation of the ground squirrel population system over time. The patterns of data in both charts on the left of Figure 5.2 (Final data set) indicate that a particular decline is occurring by 1994. Both the total population and the population of female ground squirrels are in decline, indicated by the data violating two rules for SBC data, namely for chart (a) a point below a calculated lower natural limit, and in chart (b) by points below the mean for the data (both rules indicating it is a non-random signal in the data). This observation should prompt problem-solving or action or at least an investigation of the issue.

## a) Total population of ground squirrels



## b) Population of female ground squirrels



**Figure 5.2** Two simple System Behaviour Charts signal a population crash in ground squirrels (*Spermophilus brunneus*). The pair of charts ‘a) total population of ground squirrels’ indicating how the data at 1994 (right-hand chart) sees an unexpected fall below the lower natural limit (the subsequent points in grey for 1995 and 1996 confirm this). The pair of charts ‘b) population of female ground squirrels’ show on the right chart a signal by 1994 for points repeatedly falling below the mean. The combination of both data sets strongly indicates that non-random signal of decline in this population by 1994 (something specific is causing the change). In this case no action was taken, and the population was extinct by year 2000, when a simple grassland management could have been initiated up to five years earlier (prompted by signals in such charts) to prevent the loss (Black 2020).

In this case sadly no action was taken, and the population was extinct by the year 2000. Frustratingly, a simple recovery action could have been initiated five years earlier to prevent the loss. Precautionary testing could have been applied for this ground squirrel population; a minor change to grassland management could have been implemented in late 1994 and its effects explored in 1995 and 1996 to identify any effect and make adjustments where required. Had this been attempted at the time, a simple change in fringe grassland management in the mid-1990s to prevent succession of shrubs and trees would have enabled adequate grassland food sources and therefore natural recovery and persistence of the ground squirrel population. Sadly, without this decline being noticed (and therefore no motivation for action), the final loss of the population caught monitoring scientists ‘off guard’ in the year 2000, when they turned up for a fresh field

season to find no surviving ground squirrels left at the site (Sherman & Runge 2002). A subspecies lost forever. This example illustrates the potential power of SBC analysis:

Temporal data offers the ability to observe early warning signs and take preventive action.

Another method for seeing issues more clearly is Juran's (1989) Pareto Principle (discussed in more detail in Chapter 6), which allows data to be prioritised so that Type 3 and Type 4 errors of judgement can be avoided, and the leader is able to get the team to focus on 'the vital few' issues of importance. Both SBCs and Pareto charts are examples of how merely the method of presentation of existing data (with some minor analyses) generates fundamentally new and important insights. The power of these methods makes such tools an imperative for leaders to consider in their own decision-making and monitoring of performance.

### Using indirect measures of success

One difficulty in conservation is the lack of decent direct measures (metrics) required to support planning, decision-making, or problem-solving. Difficult-to-measure metrics include (Black 2020) the following:

- Presence of cryptic species or species in impenetrable habitats or with wide ranges
- Species behaviour in remote locations (e.g. penguins in Antarctica, olm in cavern systems)
- Changes in the impact of threats (whether positive reduction or negative exacerbation)
- Improvement of habitat quality or ecosystem function

At a methodological level, conservation science uses many indirect sources of knowledge. We need to become comfortable with 'non-factual' information to inform how best to run our programmes. However, we also have a range of other indirect measurement methods which are a routine part of conservation science research, yet with creativity can also add additional measurement power to a conservation programme. Conservation leaders need to be open-minded enough to consider creative ways to monitor change and understand program performance.

### Technological solutions (traps, remote sensing, DNA)

- Camera traps are a well-established method for getting indirect sightings of species. Researchers in Oman who have studied the Arabian leopard (*Panthera pardus nimr*) for decades rarely observe the animals in life. Individual leopards have been captured on only a few occasions (Spalton & Hikmani 2014). The first camera trap survey recorded leopards on average once every 29 days (Spalton et al. 2006), so in-person field observation at such sites would be unrealistic.
- Environmental DNA techniques enable analysis of water samples to detect species presence (Vörös et al. 2017) such as the olm (*Proteus anguinus*), a small aquatic salamander which occupies caves in the Dinaric Alps of Central and Southeastern Europe. It is rarely encountered except through resource-intensive specialist cave-diving expeditions (Šarić & Konrad 2017).
- Remote sensing using satellite images and drones (Platt et al. 2023) enables inaccessible populations to be observed and monitored (e.g. crocodiles, penguins, albatross, whales).
- On land, the cheetah (*Acinonyx jubatus*) is ostensibly an easily recognised species but is rarely encountered over most of its range since it occupies uninhabited or seldom-visited

locations. The discovery of a population in the Algerian Sahara occurred only relatively recently (Busby et al. 2009). Citizen science using mobile telephone technology allows the public to record chance encounters and build an understanding of cheetah presence in the absence of field surveys.

#### ***Field evidence (tracks, nests, kills, faeces)***

Although we are interested in management, not research methods, some concepts of field-based knowledge are worthy of comment, so that leaders can appreciate the constraints faced by their teams. Field evidence rarely provides direct data on ecology or population status of species or the functions of an ecosystem. Impenetrable habitats, remote locations, or behaviour of a species (e.g. nocturnal or fossorial) can make observations difficult. For example, the Sumatran rhinoceros (*Dicerorhinus sumatrensis*) is a large a mammal, 3m long and weighing 2000kg yet is notoriously elusive, only known in mainland Myanmar from tracks in the 1990s and in Malaysia from indirect evidence (Kawanishi et al. 2002; Magintan et al. 2010). Individuals on Borneo, discovered only in recent decades, may have disappeared (Pusparini et al. 2015). Experienced biologists have never seen the species despite years spent in the field, so indirect evidence is vital to assess presence, using knowledge of species ecology. Patrols or camera traps set on ridges, waterways, salt licks, and mineral springs offer the best opportunities (Rabinowitz et al. 1995; Havmøller et al. 2016). Many other species provide indirect indicators, which combined with statistical modelling enable inferences on population status, demographics, and range.

#### ***Threat aversion and reduction***

Threats are usually measured in terms of instances rather than measurable impact on the species or ecosystem of concern. Sometimes, however, the impact of threats lags behind the original threat presence (e.g. invasive predators changing trophic dynamics in an ecosystem). Usually, a programme would measure threat presence and species presence (i.e. species of concern) or habitat quality and then indirectly assess the correlation between changes in each as a measure of threat impact. By monitoring these effects decisions can be made on further interventions to address the threat.

#### ***Landscape recovery, habitat quality, ecosystem performance***

Habitats are usually spread over large geographical areas so typical measures include aerial photographs and satellite imagery, supported by ‘ground truthing’ from field surveys to compare with the wide-scale data. Ecosystem performance is also usually derived from indirect methods, such as water catchment, levels of foliage, and so on. Sometimes, simple qualitative indicators such as photographs of ‘before’ and ‘after’ scenes for a landscape can be useful (Jones & Copsey 2018) and are important when discussing those changes with local people and other interested stakeholders.

#### **Using local knowledge and traditional sources of knowledge**

There are many examples of local people providing useful information on species presence, status, behaviour, and ecology (Young et al. 2018). In the late twentieth century, there were instances where local knowledge of species was ignored or not investigated (even in the United

States, see Snyder 2004), so a species was categorised by science as extinct whilst still just surviving (then ultimately falling into extinction whilst unnoticed). When considering using local knowledge we should remember these past mistakes and be humble in our exploration of what local people tell us about their environment. Examples include late persistence of the Carolina parakeet (Snyder 2004), Chacoan Peccary (*Catagonus wagneri*) known only in the fossil record (Wetzel et al. 1975), Barbary lion (*Panthera leo*) in North Africa (Black et al. 2013; Fellous-Djardini et al. 2023), and the saola or spindle-horned ‘antelope’ (*Pseudoryx nghetinhensis*) in Vietnam (Dung et al. 1993; Schaller & Rabinowitz 1995).

Local knowledge has been more successfully used in recent decades, such as identifying isolated sub-populations of the elusive Arabian leopard (*Panthera pardus nimr*) prompted entirely by local sighting reports in regions not known to house the species (H. Al Hikmani, personal communication) allowing targeted scientific effort using camera traps to understand the population. Community knowledge is likely to help to cover large geographic areas or long time periods. Emerging evidence suggests that in some contexts non-professional volunteers may perform as well as experts in field identification of species (Austen et al. 2016), enabling increased capacity in identification activity without excessive vulnerability to error (Gibbon et al. 2015). Assessments of presence of cheetah, an extremely wide-ranging low-density species, have been assisted by local people and tourists being encouraged to upload sightings on mobile phone apps (Jedersberger et al. 2018).

### ***Respecting local knowledge when different from one’s own***

Scientific teams who engage closely with community members can more easily identify sensible localities to set cameras or collect samples in a timely and resource-efficient manner, or local people can be directly involved in data collection. On broader issues, such as the historical status of species populations, or contemporary issues such as routes of illegal trade or natural resource offtake, important information can be gained from local people. The scientific community has a poor record in considering local people’s knowledge, often due to professionals’ concern that some informants unconsciously exaggerate (e.g. to please the interviewer or for perceived reward), or that some socio-economic groups tend to overestimate information (Lunn & Dearden 2006). Again, from a leadership point of view, your conservation team needs to be coached in humility and skills of listening, to engage in discussions with local people with dignity, respect, and a suitably open mind.

Knowledge and reports by local people can be useful and should not be rejected outright even if the area or circumstances of a sighting appear unusual for the species. A number of species now under conservation are known to have been forced into unsuitable marginal habitats, such as New Zealand’s takahe (*Porphyrio hochstetteri*) inhabiting suboptimal grassland away from more preferable habitats now overrun by introduced mammalian predators (Trewick & Worthy 2001) and Mediterranean monk seals (*Monachus monachus*) which hang on in islands of Greece and Turkey (Güçlüsoy & Savaş 2003; Karamanlidis et al. 2016) by attempting to raise pups in underground caves rather than beaches to avoid humans (Gucu et al. 2004; Karamanlidis et al. 2016). Conservation based solely on these locations will not change the fortunes of the species, so different thinking is required from those leading recovery projects.

Unexpected occurrences do occur. For example, although sea turtles are a common sight in waters around popular holiday destinations like Réunion, Mauritius, and Malta, they are not known to breed in these locations due to disturbance of beaches by herdsman, fishers, and holidaymakers (Bertrand et al. 1986; Ciccione & Bourjea 2006; Ciccione et al. 2008; Fretey

et al. 2013; Reyne et al. 2017). A report of a female turtle arriving on a beach at a location many decades after previous occurrences might be unexpected but must not be rejected. Knowing the extended lifecycle of turtles and their fidelity to breeding sites, a ‘sudden’ reappearance of a breeding female should be expected. Informal surveys of sightings by locals are a sensible start-point for scientific study and design of future interventions and also get people on board with the idea of conservation. This is a real conservation issue now being faced in marine conservation as turtles return to these islands in the Indian Ocean and locations in the Mediterranean such as Malta (E. Dobbs, personal communication), where local people and visitors are currently less used to sighting these animals on beaches (S. Darlington-Black, personal communication).

### ***Participative methods for engaging with local and traditional knowledge***

Deeper, more qualitative methods of collecting local knowledge are also worthwhile. Approaches originally used in Participative Rural Appraisal (PRA) offer useful ways to capture local knowledge of ecosystems, landscapes, offtake, seasonal fluctuations, past declines, and species population status.

### ***Relationships with local community members***

If a conservation team can build relationships with local people, it will help to engage communities with the activities of the programme. Recent progress with marine protected area management in the Seychelles has been driven by local fishermen now engaged with the programme volunteering information on catches and suggesting plans for sustainable offtake (W. Accouche, personal communication). In India, mutual support of the local community by growing fruit trees in an enclosed compound away from deer and other browsing animals enabled the Pygmy Hog Programme in Assam to offer local people the gift of mature trees that could be planted in local people’s fields (P. Deka, personal communication). In Morocco, free training given by HAF to local people on tree planting techniques (Opfer & Black 2019) enables local plantations to be more productive for the benefit of families and farmers and enables agroforestry to establish and support recovery of landscapes (K. Opfer, personal communication). In Comoros, the local NGO Dahari have invited women who are local fishers involved in marine management programmes to participate on trips to see practices used by in-shore fishers in neighbouring Madagascar to support sustainable fishing (H. Doulton, personal communication).

### **Knowledge to accelerate innovation**

Some of the most successful conservation programmes have thrived due to innovation by the team and the active application of innovative methods. Innovation is not so much about pioneering methods but about the following:

- (1) Utilising existing methods or equipment in new ways
- (2) Learning from direct use, then adapting the method or equipment

### ***Innovating with existing methods***

Simple but effective use of existing methods or equipment in new settings has enabled significant progress to be made in conservation since the 1960s. Fencing of rare habitats, use



of captive methods such as nest-boxes or artificial dens in wild settings, trapping of invasive mammals, anti-climb bands on trees, pre-release training, have all arisen by application of an existing approach to a new setting (Jones & Copsey 2018). Grassland management and reforestation follow the same principles, utilising agricultural techniques to enhance wild ecosystems. The concept of rewilding and sometime use of analogue species (to replace extinct species) completes the circle by reintroducing ecosystem functions undertaken by wild species back into landscapes where a similar native species had previously been extirpated as has been enacted by programmes in Mauritius with Aldabran tortoises ([www.mauritian-wildlife.org/](http://www.mauritian-wildlife.org/)) and in the UK with European bison ([www.wildwoodtrust.org](http://www.wildwoodtrust.org)) as two diverse examples.

### ***Innovation by adapting with emerging knowledge***

An innovative method must be applied as a pilot study, with data collected to understand results. When data suggests it is successful, the method can be upscaled to some degree (Reis 2011). New data is collected (an upscaled pilot), and if positive, further upscaling can proceed. If at any stage the method is ineffective or has a negative effect, then a decision to stop is made. Alternatively, if the data, or other observation or feedback suggests an adjustment must be made to the method, then the adjustment is planned and implemented. Thereafter, new data is collected to restart the cycle.

In this way the cost of implementing new innovations is kept low, and commitment to further investment is made only when the efficacy of the approach is demonstrated.

### ***Innovation as a new conservation management paradigm***

Innovation is the opposite to strategic planning (Reis 2011), since strategic planning (or conservation planning) concerns mid- to long-term plans (usually three to five years), with detailed design, predictions and models, targets, and consensus decisions. In contrast, innovation is about the following:

- Unclear design ('ideas')
- Workable models (pilots) and testing (pilot studies)
- Use of data for proceed/reject decisions

Innovation essentially follows the Check–Plan–Do cycle of learning. Innovation cycles and their relevance to conservation management are discussed in more detail in Chapter 8 and Chapter 11.

The principle of innovation cycles is to start small, gather data on effectiveness, and then build bigger (upscale) and retest against data on the larger scale. In this way money is invested only for each upscale stage, without committing investment to a major project up-front.

This cycle should appeal to conservation scientists since it is the scientific cycle – and perfectly legitimate to apply in an operational setting. The most successful species conservation programmes such as the Echo Parakeet, Mauritius kestrel, Channel Island Fox, and California Condor have effectively used this exact approach before (Black et al. 2011; Jones & Copsey 2018). It is time to look seriously at this methodology for developing initiatives in all other areas of conservation.

### **Case Box 5 Knowledge and mammalian reintroductions in South Asia**

The pygmy hog (*Porcula salvania*) is a small cryptic mammal species which inhabits dense grasslands of up to 3m cover height (also known as ‘elephant grass’; see Figure 5.3) in which this small animal is almost impossible to observe and which even Indian rhinoceros (*Rhinoceros unicornis*) can move undetected. So difficult is observation of pygmy hogs in the wild that the only film or photographs have been from camera trap or long-range camera images of formerly captive hogs at supplementary feeding areas at release sites for a few days after introduction. Camera traps or video surveillance is ineffective for any extended period once animals have dispersed from their release location. The pygmy hog’s movements through close cover means that current methods of radio telemetry rely on remote transmitters which are not yet robust enough to remain fixed to the animals in the close-contact habitat of the grasslands (Deka et al. 2009). This has implications on the logistics of surveying and monitoring the species. Organisation of field-based interventions requires significant logistical arrangements including spotters to protect researchers on foot from tigers, Indian rhinoceros, buffalo, and elephants (G. Narayan, personal communication). The capture of wild animals required an additional team of mahouts with trained domestic elephants.



*Figure 5.3* Tall grasslands (‘terai’) in Assam, India. The edge of this habitat is accessible by vehicle, but grass obscures even very large species such as rhino, tiger, buffalo, and elephant.

*Source:* Photo credit: Simon Black

Instead, an understanding of pygmy hog presence requires identification of their nests in the grasslands after controlled seasonal burning activity (Deka et al. 2009; Narayan et al. 2010). In addition, hoof-prints have some degree of relevance, although only the tiny prints of juvenile piglets can be definitively identified as being different to wild boar (*Sus scrofa*), which also inhabits the area (G. Narayan, personal communication). Despite this shortfall in precision, prints of juveniles are important since they indicate the birth of juveniles, allowing inferences of wild population status.

In difficult-to-access terrain and with difficult-to-observe species, with imagination, indirect measures of presence can provide important and entirely valid programme performance information. This illustrates that in some instances there needs to be a practical reliance on indirect evidence to inform an understanding of key aspects of a programme. As long as the measure can inform how the programme is conducted, or decisions which need to be made, or identify potential problems which need to be solved, then the knowledge is useful.

## Chapter 5 reflection – a healthy development of knowledge

A leader needs to have a mature perspective on knowledge. A conservation programme with all its likely uncertainty, unpredictability, hidden and unknown elements, and changing context over time cannot be understood solely on the basis of fact. The challenge for a leader is to have the right mental (and technical) tools at hand to be able to utilise all available knowledge to inform how to set direction for the programme, how to guide and encourage people, how to engage other stakeholders, and how to improve results and impact.

- There is a continuum of knowledge from ‘belief’ and ‘assumption’ through to ‘scientific fact’.
- Conservation leaders must be comfortable with incomplete knowledge as a fact of life.
- The Precautionary Principle suggests action likely to have *acceptable impact should be taken*.
- ‘Acting Fast’ has proven to be a key advantage in species conservation.
- Understanding variation in conservation data (especially for data derived from population, species or ecosystem, or their threats) lets a leader perceive ‘the voice of the ecosystem’.
- When noticing apparent changes in data (or possible trends), be aware of Type 1 (False Positive) and Type 2 (False Negative) errors of judgement.
- SBCs (and rules) visualise data to prevent Type 1 and Type 2 errors.
- Unconventional or indirect measures are often needed to overcome physical or geographical constraints to understand species’ status, ecosystem function, or human behaviour.
- Traditional knowledge can provide valuable insights for scientific programmes and if properly appreciated for its value, opens doors for scientists to engage with local people.
- Innovation cycles produce data from pilot studies, enabling decisions to upscale the work.

Table 5.1 Areas of knowledge used in your role (exercise).

<i>Belief</i>	<i>Gut feeling</i>	<i>Perceived (observed)</i>	<i>Partially known (some data)</i>	<i>Facts</i>
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### Exercise 5 – types of knowledge used in your role

Draw a large table on a landscape A4 page using column titles as indicated in Table 5.1, leaving plenty of space under each column title.

- (1) Consider types of information which you use and write them under the appropriate heading.
- (2) Add in the types of information you would like (which could reasonably become available)
- (3) Highlight *current* sources of information which you utilise most with an asterisk in each case.
- (4) Circle any which you do not value (e.g. you might not value people's assumptions about you).

Reflect honestly on why you are happy (or not) with sources of knowledge that you currently use.

- (1) Consider whether the sources of information you use may be biased or limiting.
  - How do your preferences compare to knowledge of people engaged in the programme?
  - Do others value different knowledge (including external parties or local communities)?
- (2) Decide if any new sources of knowledge are worth pursuing.
  - What people or viewpoints may help you access other sources of knowledge?
  - What could you do to gain more useful knowledge to support your programme?
- (3) Identify ways in which available knowledge can be made useful to your work  
(e.g. collecting qualitative views, local stories and rumours, traditions, opinions).

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### **Online sources**

African Range-wide Cheetah Conservation Initiative. <https://cheetahconservationinitiative.com/>  
 Dahari Comoros. <https://daharicomores.org>  
 High Atlas Foundation, Morocco. [www.hihatlasfoundation.org/](http://www.hihatlasfoundation.org/)  
 Mauritian Wildlife Foundation. [www.mauritian-wildlife.org/](http://www.mauritian-wildlife.org/)  
 Pygmy Hog Programme, Assam, India. [www.durrell.org/conservation/species/pygmy-hog/](http://www.durrell.org/conservation/species/pygmy-hog/)  
 Wildwood Trust, UK. [www.wildwoodtrust.org/](http://www.wildwoodtrust.org/)



## 6 Managing performance in natural systems

### Personal Perspectives – Introduction

Conservation management requires an understanding of species and ecosystem status, stability, decline, or improvement, including knowledge of changes in threats. These aspects can be understood from a scientific perspective, using analyses which are well established in conservation circles, but many such methods are designed to inform science rather than practical management. Scientific analysis can take years to be verified in published literature, with the inevitable lag between data collection and results. This is one factor creating the science–practitioner mismatch in what science knows and what practitioners need for the recovery of species and ecosystems.

When faced with a decision or a need to justify a proposed action, a leader has a few options available, some more appealing than others, some appropriate, others totally inappropriate. The options include lying (not a good option), concealing the truth (another poor choice in the long run), presenting a compelling opinion, presenting a mass of data to justify the approach, presenting only data that justifies the preferred approach, some sort of qualitative evidence base (‘constituents told us that . . .’), or actual facts that show impact and intended outcomes. The differences between these are sometimes blurred, and leaders can be tempted into a game of ‘smoke and mirrors’ to get the best outcome. This will not do. A better option is to get a grasp of facts where they are known, state assumptions where they are known, and find a testable way of measuring outcomes; we can then see if the decision or chosen path was correct or not or if it can be reversed. This approach seems like an ideal, a holy grail of performance monitoring. Thankfully, in reality these methods exist.

I first examined statistical process control in a world class manufacturing plant in 1989 as part of an undergraduate industrial placement. I was fortunate to learn more from John Oakland and Les Porter at the European Centre for TQM at the University of Bradford and later used the approach in a commercial organisation (examining sales patterns) alongside Oakland Consulting. I have continued to explore the idea of understanding variation in natural systems and have appreciated discussions with John Seddon as a sounding board. What is clear from these experiences is a mindset that comes with understanding variation, namely a leader’s rationale for decision-making and enacting change to improve performance. I thank several wildlife professionals who worked with me on systems behaviour, in particular Akshita Pungaliya, Samuel Leslie, Sofia Venturini, Emily

Stebbings, Lucy Scott, Grant Burden, and Laura Talbert, from which several outcomes of our analyses appear as follows.

An effective leader needs to understand the Theory of Variation and apply statistical thinking to management and operation of conservation programmes. These skills are not common but are vital for avoiding wasted time, effort, and resources when conserving species and ecosystems of concern.

### **New principles for managing performance in conservation**

At first glance, this chapter has a strong emphasis on data, data collection and analysis, none of which appears closely related to leadership. The reason for addressing these topics is that:

*A leader's perspective on what to measure will influence how people perceive their work.*

This affects the team's actions and priorities for making improvements. In a nutshell, if you have a healthy, purposeful, and relevant perspective on performance, so will your team, and their work will make a real difference (because that is the priority – having an impact) and will have a beneficial effect on biodiversity (because you focus on the needs of species and ecosystems of concern).

In conservation, the work that we conduct as humans, whether in the field, zoo, marketplace, or office is embedded into, and interacts with, the social and natural systems which we are hoping to influence. Our actions will interact with the highly variable comings-and-goings of those systems; the movement of animals, the abundance of plants and vegetation, abiotic factors as well as human development, marketplace economics, law, land use, and so on. This wider environment in which conservation organisations operate is organic and dynamic.

Systems theory indicates a number of observations on how organisations operate (including projects, programmes, partnerships, and collaborations) and how even those much larger and more complex systems behave (ecosystems, social systems, economic systems). These issues are explored in Chapter 8 but are worth keeping in mind when considering performance. The main general characteristics of a system (Meadows 2009; Armson 2011) can be simply summarised as:

**Complexity** – ecosystems are made up of a multitude of parts, and even organisations are made up of many parts. The organisation chart does not describe the system, nor do job descriptions or procedures. People's behaviour, decisions, priorities, and use of resources, the mix of processes inputs, outputs, and stakeholders drives the complexity that we observe. Any changes (including conservation management interventions) must take account of all these aspects.

**Interconnectivity** – if one part of the system is changed, other parts will be affected, but this is not limited to simple, linear patterns of change. Small indirect effects can be amplified across a system, so a cause–effect expectation when making one change can be unrealistic. An effect may be driven by many causes, interactions between causes, or intermediate controls on the size of an effect.

**Unintended consequences** – a result of interconnectivity and complexity is that any action can cause unintended consequences. What seems like a good idea can end up having a really

negative effect. This can be observed in things like wildlife market interventions where initiatives such as trade bans can drive up levels of illegal trade rather than suppress trade as was intended. Another example might be a pay raise for one deserving individual which causes frustration, demotivation, or disruptive behaviour across the whole organisation due to other perceived inequalities.

Pervading approaches in conservation management over the past 20 years follow a quite different and unrelated set of principles:

- (1) Objective setting
- (2) Monitoring and evaluation
- (3) Adaptive management
- (4) Science-based management (evidence-based conservation)

These elements all have their place in informing how to run a programme; but they are not a good basis for managing the performance of the work, since there are a number of methodological difficulties. This sounds counter-intuitive, since we are schooled from a young age to think about goals/targets and objectives and that checking results is a good thing (Deming 1994). Similarly, goals and objectives are part of a planning cycle, and some conservation organisations are dedicated, almost exclusively, to conduct planning as their core work or purpose for existing. However, conservation planning approaches (loved by technical people) can sometimes just provide an illusion of work, when it is not work at all – at best merely a precursor to work. Also planning processes tend to take too long and are extremely resource intensive (Malcom & Li 2018).

A third principle, adaptive management, is less commonly used in practice. Adaptive management is considered as ‘a good thing’ to build into operational programme design, so is often mentioned in conservation literature. Whilst adaptive management seems like a logical extension of good practice, it is a misnomer. Management in its essence should already be adaptive (striving for best results); if not management would simply be bureaucracy (i.e. administering a list of activities to deliver the list of activities). One of the main reasons adaptive management, as a structured way of going about work, is implemented somewhat *less* than might be expected is due to its committee-based approach or ‘management by review’ (Cundill et al. 2012). Adaptive management is distanced from the actual work and tends to involve after-the-event debate and discussion and decision-making. Whilst this appears to be ‘management’ (i.e. people in a meeting debating work and results), the meetings approach as a method can be a fairly unconstructive exercise. Having people ask for permission to do things that they have already decided need doing (or are obvious) or to pore over data that they have previously produced (and analysed) is an unnecessary exercise. The fact that these meeting-based approaches arise should not, however, be a surprise since many commercial organisations follow exactly the same habits; doing ‘the work of management’, which actually is not work at all.

Conservation scientists (intelligent people) and practitioners (many of whom are from a science or research background with experience and knowledge of the real world) recognise that ‘management stuff’ is often a pain and largely ineffective. From many professional conversations over the years, it is clear that many practitioners wrestle with the idea of actually improving conservation, to make things work better. Unsurprisingly, the concept of *evidence-based management* has since come to the fore. Clearly, there is absolutely nothing wrong with the rationale of basing management approaches on science. Wherever scientific knowledge is available it should be applied or sought. The only difficulty is that establishing a scientific evidence base

for conservation interventions takes far too long; this was the view of Clark (1993) 30 years ago and not enough has moved the pace of organisational learning since. Add to that the extended time (and cost) it takes to disseminate scientific findings and limitations on how to spread the knowledge (language, access etc.) and we have a major problem (Kareiva et al. 2002).

In opposition to this is the sheer speed of threat development in many parts of the world. The challenge for conservation decision-making and action is that it now has to run at a far faster rate than scientific knowledge acquisition. This means that a different, faster responding paradigm of conservation leadership and management is required.

### **Refocusing your rationale for managing better performance**

Practical problems with ‘traditional management’ mean that leaders need to take a different stance when understanding the performance of their programme. Leaders need to know if the programme is truly making a difference, and above that, what it needs to do to improve outcomes. To adjust this perspective of performance it is worth first being clear about the potential pitfalls in the current ‘old paradigm’ and ‘wisdom’ about managing performance.

#### ***Problems with objectives, targets, and goals***

**Objectives** express a future intention and are set around two things – activities and results. Some objectives combine *both* activities and results. Some specify the ‘requirement’ or expected measured level of performance and in these instances is usually termed a ‘target’ (i.e. what you are aiming for).

Management by objectives has become so embedded in training courses and management education that you would be forgiven for thinking it is best practice. It is not. Cascades of objectives are by definition linear ( $a = b + c + d$ ), yet organisational systems and, in conservation, ecosystems are rarely (if ever) linear. For example, in a conventional organisational team, if John achieves his objectives, it may reduce the chance of Kim achieving hers or prevent Mo and Jerry having enough time to do their work. The obvious solution is to set team objectives, but this mentality just pushes the problem up a level; team A will compromise team B and team C, and so on.

Activity-based objectives describe ‘things to do’, like running educational events, completing a survey, issuing compensation payments, constructing fences. An objective fails to communicate the point of such activities.

An easy analogy is a football match (soccer); an open system involving many people. The goal is twofold: score goals and to stop the opposition scoring goals! Championship-winning manager Bob Paisley told an experienced international footballer in his team who had asked him what to do with the ball “just pop it in the net and we will discuss options afterwards”: simplicity and clarity are crucial.

The same applies to conservation work: people do not do just one task; they do many tasks and adapt as the system develops around them. They have broad responsibilities and specific personal goals. Anything more specific would be confusing and self-limiting; clear goals should encourage decision-making, problem-solving, collaboration, and action. Yet we forget this when we start running organisations or project teams.

**Targets** now have a bad press in management literature (Deming 1982, 1994; Kohn 1999; Coens & Jenkins 2000; Seddon 2003). Targets place distracting performance requirements upon people in the organisation: the needs of people (to meet the target) come to the fore. This means targets are divorced from the purpose of the organisation (remember that organisational *purpose*

*should relate to species and ecosystems of concern*). Whether we intend it or not, targets have an inward focus only of importance to us. A target might appear rational: ‘deliver 50 education events by June 2023’ but is created for a leader’s benefit or sense of security, and rarely a real systemic need. If a target is set at 50, then why not 49, or 51, or 70, or 23? The rationale for targets, when examined critically, is arbitrary. At worst, targets are used to put expectations or pressure on staff ‘to motivate them’. This is not how motivation works (see Chapter 7). Deming, the management guru is clear; *do not use targets* (Deming 1982).

**Goals** have a better operational value. Goals are qualitative descriptions of what people should be focusing upon. If people are clear in their understanding of the purpose of the organisation, they will be able to understand the focus of their goals (Deming 1994; Mager 1997). A better approach is to set goals with parameters that enable people to understand their work – such as quality, quantity, time, cost, behaviour, where these things *describe the point of the goal*.

Teams are much better able to share goals, to talk about goals of this nature. Quantitative goals are much more difficult to talk about with colleagues, tend to drive competition, which causes suboptimisation across the organisation, and is unhealthy in terms of developing trust, collaboration, and team maturity, all of which are essential for establishing successful conservation work.

**Goal displacement** is a common phenomenon. As mentioned earlier, avoid quantifying goals since it sets people to chase the quantity and not the purpose that sits behind the quantity. This shifting of priorities is a common observation of failing in organisations and is termed ‘goal displacement’. Goal displacement sees people chase after the wrong things. In the 1980s, most attention on the po’ouli project was placed on design and eventual construction (from 1990) of fences to create protected habitats clear of pigs, but nothing was done to recover the bird population itself, despite its population falling 90% since its discovery in 1973 (Powell 2008; Black & Groombridge 2010). The effort chased the goal of protecting the forest rather than actual recovery of the po’ouli, which was extinct by 2005.

**SMART goals** Various mnemonics have been devised for setting good goals (or objectives), loosely based around Doran’s (1981) SMART objectives. The acronym has morphed with various meanings, so to clarify the points Doran made in his original suggestion, and to emphasise what needs to be avoided in conservation the safest way to approach goal setting is to consider the following:

- (1) **S – Short-term goals** are essential fitting the *specifics* of species, habitats, landscapes, human communities, or resource use systems with which you are working. There are so many variables in the conservation activity that no one can predict outcomes over the mid term or long term. Instead, focus on what you are looking to achieve this week, this month, this season, this year. Most operational and biological systems work within this cycle (for the few exceptions such as turtle breeding, elephant gestation, and tree maturation, there are plenty of interim goals within human timescales). Even in businesses typical three-year and five-year goals are largely irrelevant as they usually need updating within their lifetime. I have only ever seen long-term goals needing to be updated or scrapped within six months.
- (2) **M – Measurable**, goals based on the ‘capability’ of the systems of concern, in other words based on reality. A measure may be yes/no (achieved/not achieved) or more complex such as the number of nest sites used by breeding pairs, or population counts, or numbers of convictions for illegal wildlife trade. Remember, *do not set a target figure*. Instead, review results to understand what is possible or predictable in future or what must be improved.

- (3) **A – Agreed** with the team so that they have ownership and clarity, ensuring the goals are *achievable* but also based on *ambition* to make a difference and do something worthwhile, so seek to set stretching, *aspirational* goals.
- (4) **R – Realistic** goals are essential, otherwise it is a fruitless exercise. This requires *regular review* (which can be as simple as regular honest questioning – ‘why are we doing this?’) and if necessary, revision – either *re-setting* if they are unlikely to be achieved, or, if circumstances and context have changed, *reframed* as a different goal to remain *relevant*.
- (5) **T – Time-bound** – be clear when you will assess progress. Make this *timing* meaningful in the cycle of work – after one week, one month, one year, and specifically when (e.g. on June 15)? A sensible approach involves continuing monitoring progress, which is achievable if delegated to team members doing the tasks. It is important not to wait to look at progress until the end of the intended goal period. Assess progress during the period of work.

#### ***Problems with monitoring and evaluating (against objectives and targets)***

A first problem if people are being measured against targets is a tendency to work according to the targets and not according to the purpose of the organisation. Second, people will work to targets regardless of whether it hinders another team or team member. Third, they will work to the target without considering ramifications for other parts of the project or ignore whether other external factors may be important to the overall results of the organisation. Fourth, and some choose not to believe this, people can choose to lie about achievement, even faking data so that targets appear to be met. This kind of highly dysfunctional, subversive behaviour (which psychologists call ‘deviant behaviour’, although I suggest the preceding leadership behaviour is the real problem) has been observed in otherwise noble sectors such as healthcare, education, and police (Seddon 2008).

A conservation example is found in the early Black-Footed Ferret Programme of the 1980s and 1990s, when professionals became expert at captive breeding ferret kits but simply pumped animals out for reintroduction only for most of those animals to perish after reintroduction into the wild. Similarly, there was a dearth of suitable habitat locations where landowners were willing to take on ferrets (and prairie dogs, their core prey). The total effect did not enable the ferret population to grow (Black & Groombridge 2010). After years of considerable failure, the programme was redesigned to have two major elements: first a ‘preconditioning phase’ where kits were vaccinated for canine distemper and trained before release into the wild, and the ferret’s prey in target reintroduction sites, prairie dogs, were vaccinated for sylvatic plague. Second, efforts were made to engage in relationship-building with landowners to identify where prairie dog colonies (and therefore new ferret release sites) could be sustained. These two very different goals were nevertheless vital in delivering the project’s purpose, namely establishing a self-sustaining wild black-footed ferret population.

An argument might be ‘you just need to set the right targets’, but this is a fallacy, since a better set of objectives does not result in the joined-up thinking needed to improve performance across an organisation. Joined-up thinking only comes with process-thinking, namely the ability to identify, design, and manage processes which deliver the purpose of the organisation (see Chapter 10 and Chapter 11). Each organisational process is defined by its purpose, and it is quite easy to define process purposes which align with the overall organisational purpose (Scholtes 1998). Process performance is not determined by the whim or wish of a manager (‘I have set a target of 150 turtle hatchlings per year’) but instead is defined by the capability of the process – what the data tells you the process can deliver (see Chapter 11).

Goals are a more useful tool as qualitative definitions of intention. A process can have specific goals stated against its purpose to define the achievement which the organisation wishes to deliver. ‘Disease free animals for release’ would be a goal. ‘Native fruit-bearing trees in the landscape’ would be another, ‘Qualified, self-reliant, reliable anti-poaching rangers’ might be another.

Honest statements of vision can support this, for example ‘Deploy 50 guards distributed on park borders in any one day’, but do not waste time measuring this. It is a better use of your time to be working on ways to measure the threat (in this case) and devising methods to reduce it.

### ***Problems with adaptive management for performance improvement (responding to results)***

Adaptive management tends to be based around management review of results, often by a committee of interested parties or experts. This type of approach does not truly focus on results, nor does it match the nature of conservation work, which is characterised as a crisis discipline (Stebbins et al. 2016). Take an emergency situation: would a committee be formed to pore over reports and review past actions? Not at all. In a disaster situation a team would make quick decisions and implement actions with testing for effect on a day-by-day basis. This has previously been applied to disease threats, immediate poaching threats, oil spills, and the like and has rarely resulted in disaster. The same energy and interest should be applied in day-to-day management, albeit under less time and resource pressures.

Adaptive management approaches tend to involve pre-collation of evidence (in the form of reports), discussions in meetings over points of technical detail, and sometimes discussion to agree action. This tends to run at too slow a pace and too infrequently to support operational work. Frankly, it runs at the pace of *research* and not at the pace needed for conservation work.

Avoid management by reports. Also avoid management by committee. Committees are best used for reviewing project phase achievements, signing-off authority to others who are doing the work, giving advice, ensuring resources are available, and for providing political support (see Chapter 11).

### ***Final comments on the point of evaluating performance***

As a leader be honest about why you are measuring performance. It is worth reflecting on which of these answers apply to your rationale for what you measure and how you measure it.

- (1) To evaluate whether species and ecosystems are benefitting from the work
- (2) That results achieved will be sustainable enabling, to some degree, a predictable future
- (3) To provide a basis for justifying or attracting funding, for example through positive messaging
- (4) To make the management team feel that they are in control
- (5) To keep the workforce on track
- (6) To keep stakeholders happy

Points 1 and 2 are valid reasons. Point 3 has little value and should be demonstrated by data from points 1 and 2. Points 3, 4, and 5 are solely for the benefit of you as a leader and are irrelevant – not dealing with reality. Point 6 is not relevant and would be managed by better stakeholder relationships and messaging around points 1 and 2. A purposeful organisation is focused on species and ecosystems needs and sustainability and predictability of performance. The only

other generic dimension of interest is how well the organisation is improving results on those two fronts 1 and 2.

### **Improvement and innovation cycles**

A better fundamental principle for managing interventions is the well-established Plan–Do–Check–Act cycle, sometimes known as the Deming Wheel as used in the best manufacturing, commerce, and public service organisations since the 1950s (Deming 1994; Seddon 2003). This cycle is based on early work on learning but was developed in practice by Walter Shewhart in Bell Laboratories in the 1920s and 1930s where Deming worked, so he credits his boss with the model: the Shewhart Cycle. The method is best summarised as CHECK-PLAN-DO.

The important concept of this cycle of thinking is that it integrates both *deductive learning* and *inductive learning* into the improvement cycle. Whilst this superficially resonates with adaptive management (or what adaptive management aspires to be) the Shewhart Cycle describes an active process which a team uses to consider situations as they are being confronted or when carrying out an intervention as it is undertaken in the field. It is all about ‘hands on management’ and is *not* management by review. An effective leader should be encouraging (i.e. coaching) his managers and teams members to apply this thinking in their day-to-day work and should be a normal part of conversations. The benefit of this is that people see their work, and its problems or successes, and then adjust on the basis of those realities to make a difference. This encourages people in their commitment to the work (it makes a difference) and raises morale as a side-effect of effective management of work (Seddon 2003; Kouzes & Posner 2007).

The principles of this cycle are:

- (1) Check – assess the situation (e.g. what data says about today in relation to previous days)
- (2) Plan – identify if action should continue, be stopped, new action taken, or no action taken
- (3) Do – implement the action and then return to step 1 to investigate the effects

This check–plan–do cycle defines knowledge-informed management (Deming 1982; Seddon 2003) which is the holy grail of any conservation practitioner. This moves far beyond evidence-based practice (‘doing things which are known to be effective’), towards data-informed improvement, in other words, *doing things that make a difference*. This principle should be a fundamental basis for managing the improvement of performance on a day-to-day and week-to-week basis. There is little need for weekly or monthly ‘reports to management’ since managers should already know the data.

This improvement cycle will be explored in more detail in Chapter 8 and Chapter 10 as a model for driving innovation and improvements in conservation.

### **The Pareto principle and identifying priorities for action**

The immediacy of threats and the scarcity of resources with which to address them make prioritisation of effort in conservation one of the most critical aspects of management decision-making. This being the case, the Pareto principle can be a really helpful tool in the mind of the conservation leader (Stebbins et al. 2016). The Pareto principle was first observed by Joseph Juran in the late 1940s in business problems, and he attributed the name in tribute to the Italian engineer and economist Vilfredo Pareto (Juran 1989).

The Pareto Principle concerns ‘the vital few and the trivial many’.



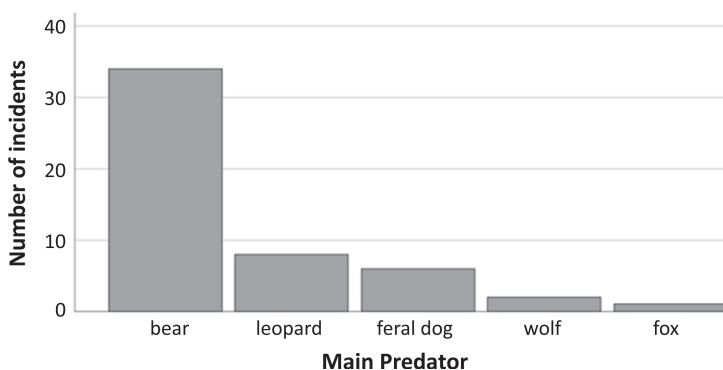
For a given phenomenon, a variety of causes are likely to be influencing the phenomenon. The trick is to identify the frequency (or degree) of influence that each cause has and then prioritise them for action. Typically, in Juran's observation, when you rank the items (causes), you will find that a vital few will account for the bulk of the outcomes. The best way of presenting this is on a *Pareto chart*.

### ***Pareto analysis of predator conflict in Ladakh, India***

Let's consider an example where we asked local farmers and villagers to name the main predators which cause problems for their home or livestock, using an example in India (Talbert et al. 2020). The number of mentions of each predator was recorded to generate a list of information. We then plot the total occurrences (Figure 6.1). Clearly, the main problem species is bear. However, the species conservation programme in the region is focused on another species, the snow leopard ('leopard' in Figure 6.1), so conservation project workers may not be interested in dealing with bear conflict but instead be only interested in eliminating snow leopard conflict. The NGO works hard to get local people on board with support and encouraging them to tolerate difficult wildlife interactions with leopards in the hope that retaliatory attacks by humans (killing or trapping leopards) will not be enacted.

In this example, if the conservation NGO's projects do not address the bear issue in some way, or at least recognise the problem and discuss it with local people, then it is unlikely that the attitude of the local community towards wildlife will be changed, nor is there any guarantee that local people will develop deep concern for the snow leopard. As far as people are concerned, bears are the problem. If the NGO does not address the issue in some way, then the conservation team and local people will be at cross-purposes (i.e. focused on different things) in their concerns about wildlife.

Pareto charts can be sensibly employed in initial data analysis of descriptive statistics from any data set. The focus of the analysis concerns the question 'is there a vital few and a trivial many?'. A Pareto analysis can be conducted using absolute numbers or % contribution. Any categorical data can be included in a Pareto analysis. This type of analysis is a good start-point



*Figure 6.1* Predators identified as the main problems for livestock and property loss by villagers. This is an example of Joseph Juran's (1989) 80:20 principle; 20% of causes lead to 80% of problems.

when examining causes of problems (or key threats) and supports initial decision-making on priorities for action or further investigation.

### **Natural variation in data and the effects of incorrect responses**

An understanding of the theory of variation – and what it means when you consider or observe changes in data – is a fundamental area of leadership competence (Deming 1994; Joiner & Reynard 1994). With any variable, changes will occur according to factors in the system around them. We see this as variable rainfall, variable heights of people, variation in coat patterns on mammals, variation in wingspan in birds of the same species, and so on. This variability will be driven by two broad categories of phenomena:

**Common causes** are general background noise which affects a situation (the system) including phenomena like temperature and humidity. Common causes vary randomly by nature but are predictable, in that they have a consistent if varying background effect to some degree or another. Common causes cannot signal a change in what you are investigating (Joiner & Reynard 1994). For example, a ‘time-of-day’ of measurement will not sensibly explain noticeable differences in measured heights of people, as a general rule. (Note: *a common cause for one phenomenon will not necessarily be a common cause for another. For example, ‘time-of-day’ may be a really important influence on the number of sightings of a bird*).

**Special causes** are phenomena which impact on the measurement made for the metric in question. “Special cause” variation is a unique event that is attributable to some knowable influence (Box & Kramer 1992) since it is an exceptional occurrence (e.g. an ‘outlier’, one-off, or unusual pattern). The attributable events can have interesting reasons, for example:

- An accidental one-off oil spillage on a coastal ecosystem could be one example.
- Flash floods, unknown in a generation, which wash away nests, would be a special cause.
- The emergence of repeating occurrences of oil spills in a newly used shipping highway would indicate a fundamental change in the system.
- The occurrence of bird strikes by aircraft landing at a new airfield would also be a special cause, also observed in the data as a fundamental change in the system.
- If the number of wolf attacks increases when livestock are seasonally released from pens to open pastures, this is attributable to a change in the livestock management system.

Special causes are interesting since they indicate two courses of action:

- (1) For a one-off occurrence (an outlier) there may be a ‘no response’ (since it is true ‘bad luck’ or ‘good luck’). However, an observation sometimes must drive different (i.e. unusual) contingent action which would not be normally carried out by the project team, for example for an oil spill, contingent action such as animal rescues and rehabilitation would be undertaken.

A good example of a one-off exception is the peak in the number of manatees dying in Moore Haven lock gates in Florida in 2012 during a period of low water combined with a macro-algal bloom (Black & Leslie 2018). The animals were congregating at unusual levels in the location due to congested water on the adjacent lake, which increased the occurrence of accidental death in lock gates during a period of construction work. Similar events have not been seen before, but if this unusual combination of conditions were ever repeated a one-off contingency such as placing an observer at the site for a week or two could supervise the lock gates and reduce the likelihood of accidental manatee deaths. A permanent change to manatee management is not required.

- (2) Where a change in the system occurs, we investigate the reasons for the change, whether it is permanent and whether it is desirable or undesirable. For example, an analysis of manatee deaths identified that implementation of speed restrictions in Florida waterways caused a reduction in the proportion of manatees killed in boat strikes, despite increases in boat volumes on the waterways and increasing size of the manatee population (Leslie et al. 2017). Speed restrictions should continue to be used and maintained as a manatee protection measure (with results monitored to see if they continue to be effective).

Exceptional causes ('special causes') differ in that their solution lies in correctly identifying the attributable problem *outside the system*. An exception could drive a negative effect or a positive effect, which may require it to be eliminated at origin (if it causes a decline in the ecosystem) or identifying if unexpected improvements can be gained (if positive). Again, with an unexpected oil slick, as one such exception, you could develop a contingency protocol to prepare staff for clean-up of rescued animals (contingency) or lobby government to set a 'no shipping' zone (elimination).

However, special causes also provide lasting insight. Under current climate change effects, what was once special may become common, such as algal blooms, to become a frequent problem affecting manatees. The previous one-off action can become a standard threat mitigation action set as a requirement for building projects adjacent to waterways (Scott et al. 2021).

This perception of cause and response provides a leader with a new framework for thinking.

### ***Error of considering continual drift in variation***

There has been some debate in the past within conservation science, which I have encountered in conservation workshops that the analysis of variation in ecosystems has been looked at before (by scientists) and 'does not work, because additional points of data add more and more variation over time so that control limits become insensitive to the current changes in the data'. This sounds rational, on the basis of accumulated data likely producing more variation (we see this increase in variation occurring in the genetics of small populations, even those recovering from a genetic bottleneck, due to natural mutations). However, this phenomenon should not be confused with *how we manage data*; that is a failure in understanding of the theory of variation.

Although continually adding data may increase variation over time (and equally it may not), when using Systems Behaviour Charts, we do not solely analyse the data as a whole. We are interested in the *current state of the system* (and usually how it compares to the past). The chart is used to instead identify patterns and confirm on the basis of calculation of limits and application of rules to identify changes in the system (Black 2015). This means that in a data set over time, changes in the system can be detected as new factors impinge on the areas of concern. In the case of manatee deaths due to algal blooms, step-changes indicate a change in the manatees' vulnerability to red tide effect (due to greater presence of the algae and algal toxins). We are not simply interested in whether there are more or less deaths than last year, ten years ago or whatever might be interesting. We want insight into what to do about it.

The conservation leader's use of data concerns practical use of the information. The question of understanding variation is this: what does variation tell us about how the system is behaving now, and do we need to do anything about it? In leadership terms this looks like:

*How do I lead my team to examine this data? What do I encourage them to investigate (including potential responses) or ignore?*

Or in conservation terms for the manatee example: what does variation tell us about how manatee deaths due to algal blooms are occurring now, should we be worried (as a team) and do we need to do anything about it?

***‘Hunting’ the data as a bad strategy for improvement – and how to avoid it***

One problem with variation in data is that we assume that changes can be attributed to the intervention which we are undertaking. In reality, in many cases, the data might be simply going up or down due to background effects, and what we are observing is just natural variation (noise) in an otherwise stable system. If we simply react to the ups and downs, we will destabilise the system since adding effects (i.e. interventions to make things better) will only increase variation and will most likely move the systems towards ‘out of control’ (Joiner & Reynard 1994).

Similarly, at an operational level, if we reward people’s performance due to random ups and downs, this will destabilise the system. For example, if John is rewarded solely on the basis of a chance performance that was deemed ‘good’, then he may repeat his approach in future but find no positive effect on the results, or alternatively he might ease back (thinking that ‘it all comes easy to him’). Alternatively, his colleague Gabby whose performance was deemed ‘poor’ will be demotivated and may reduce her effort, or they both might make efforts to emulate John’s ‘achievement’ only for it to have no effect for either of them. Of course, if they are lucky a ‘good’ result will pop up again (although statistically it is as likely to get worse next time). In the end, whichever of these responses are taken, all will make the situation worse or will delude the team into thinking that what it is doing is OK (when it really is having no effect).

***A better way to lead improvement – sequential hypothesis testing to diagnose system behaviour***

What we need is a method to test each observation relative to previous observations over time (i.e. in sequence) to see if there is a real signal in the data or not. Statistical control methodologies offer an opportunity for just this type of ‘sequential hypothesis testing’ (Oakland 1989; Seddon 2003; Wheeler 2009) and provide an important methodology to improve conservation decision-making (see Chapter 5). The use of statistical process control methods in fisheries and biological sciences was proposed 80 years ago by Rich (1943) inspired by the earlier work of Shewhart (1931) and Deming (Shewhart & Deming 1939). It is a methodology that has subsequently been used in fisheries management (Scandol 2003; Mesnil & Petitgas 2009) and in other environmental management (Anderson & Thompson 2004; Morison 2008; Gove et al. 2013), and the methods have since been suggested for use in conservation (Burgman 2005; Black 2015). The methods and rules for analysing conservation data sets, using graphical “Systems Behaviour Charts”, have since been further developed to deal with somewhat messy data sets often encountered in a range of conservation settings (Leslie et al. 2017; Black & Leslie 2018; Pungaliya et al. 2018; Black 2020; Scott et al. 2021).

**Using data in SBCs: leadership to avoid errors of judgement**

The Systems Behaviour Chart (or ‘SBC’, as suggested by S. Leslie, personal communication), allows the conservation manager to use empirical data from the target system of interest to inform knowledge and to better understand the impact of operational activity. Operational work may be active management, intervention, removal of intervention, or some other course of action. As a

visual technique (examples are shown later), the SBC allows a faster understanding of patterns in data. Clear guiding principles allow an accurate and correct understanding of performance to enable the making of well-conceived decisions (Black & Leslie 2018). In an SBC, the data set is organised longitudinally (e.g. daily, weekly, monthly, or by incident in order, or sequence).

***Organising data to observe it longitudinally (over time) is a leadership philosophy***

Leaders have traditionally been encouraged to look at today's result and yesterday's result (i.e. last year's results) only and to set a target for next year. This is a viewpoint that assumes an organisation is a machine that produces something this year equivalent to what it has done last year (or what it will do next year). That is a simplistic, short-termist, and delusional notion, ignoring most of the changes occurring between any two measured events, and failing to appreciate the complexity, variability, and interconnectivity of systems.

The use of longitudinal data changes this perspective completely. *Considering data in this new way is a leadership decision*, indeed it is a leadership philosophy to decide to value all the data for what it tells about the comings and goings of a dynamic system. This is systems thinking.

The whole data set is used to calculate additional reference lines ('limits') which are plotted on the chart (SBC) adjacent to data (several example SBCs will be shown in this chapter). Fortunately, the approach is not reliant on very large data sets, since the statistical calculation of variation and the ability to detect signals in the data are still perfectly possible to achieve with limited data. Practice suggests that 20 or more data points usually provide useful insight when plotted alongside calculated limit lines (Black 2015) although even fewer data points may still yield very useful observations (Wheeler 2009).

***Preparing a small data set***

If your data set is small, perhaps 10, 20, or 50 data points, then you can simply prepare the data on a spreadsheet and plot it as a line graph, adding statistical limits to the chart once calculated (as described in the following sections).

Data should be collated in chronological order of measurement. This may be either by time (e.g. hours, days, months) or if there are gaps in the chronology, you can simply present the data as a sequence, closing the gaps where a reasonable rationale allows for this. For example, if you have a metric of number of hatched chicks in nest-boxes per week, and the breeding season was from July to October, the plot needs only sequences of July, August, September, and October counts from year one and then can continue with July, August, September, and October counts for year 2, and so on.

If you suspect any underlying issues that might be hidden, such as poor weather driving a late start to a breeding season, then identify alternative metrics to investigate the possible effect. Using sequences of data (i.e. where the timeline on measurements is inconsistent) is really useful for patchy or relatively infrequent measures, such as the occurrence of human–wildlife conflict incidents or accidental animal deaths (e.g. roadkill incidents) which may occur at differing intervals perhaps sometimes days apart, but at other times, weeks or months apart.

***Preparing larger data sets***

If the data set is large (e.g. 100 or more data points), plotting all data points makes the chart very 'spiky' with many peaks and troughs which make interpretation difficult.

- One obvious option might be possible with large data sets which is to reduce the number of data points by collation, for example collating daily points to weeks, or weeks to months, months to yearly points, but actually this needs careful consideration. Collation is useful only if there is no likely loss of information from the aggregation of data. In some instances, this is not a concern, such as where infrequent events are recorded, such as where there are ten wildlife conflict events per year, a yearly total may be suitable (unless the pattern across the year itself appears interesting, such as peak months for conflict).
- A second option is to take a sample run from the full data set (e.g. every tenth data point)
- *The best option to avoid losing information*, which is much more effective, is to *create a rolling mean* or ‘moving average’ sequence of data points. This has the effect of smoothing out the data without losing the number of data points. A moving average can be calculated for each of five consecutive points. In practice you calculate the first as the average of points 1–5, the next as the average of points 2–6, then the next as the average of points 3–7, and so on. The large number of data points essentially remains, but the plot is smoothed out for easier interpretation.

The power of the SBC chart is that even with smoothed data sets such as the moving average plot, the subsequently calculated limit line will enable *identification of real changes (signals)* within the data, which will not be masked by the transformation conducted on the data set. Essentially, the limit lines in the chart (which are calculated relative to the smoothed data) will show actual changes arising in the data derived from the system, which indicate actual changes in the system itself. This analysis also eliminates false signals (changes in the data) due to the measuring process. For example, if a change in measurement is used, the shift in variation in the measured data points will be identified as an exception (a change outside the system), not a real change within the system itself. Effective scientific diagnosis and deduction of causes of these changes will provide conservation leaders with the insight of what really affects performance (i.e. improves the situation for biodiversity) and what does not.

#### *Calculating the upper and lower limits on ‘XmR’ charts*

With data sets of limited size, it is appropriate to use all the data points directly to calculate limits (Oakland & Followell 1990; Oakland 2007). With large data sets requiring the recommended **rolling average plot**, use the 5-point averages to construct the plot of data and also calculate the mean and limits on the plot using those 5-point averages. The 5-point rolling average is indicated by the ‘x-bar’ symbol shown as  $\bar{X}$ . Limit lines are calculated as follows:

Several methods are available to calculate upper and lower limits of expected variation for a given data set); however, for open systems (as in the natural systems of conservation, or most non-laboratory environments) the calculation based on mean and moving range to identify ‘Natural Limits’ has been shown in research to be the most suitable (Black & Leslie 2018) and is recommended by leading practitioners (Deming 1982; Wheeler 2000; Seddon 2003). It seems that calculation of limits based on the use of standard deviation (as seen in engineering texts and practice) is less sensitive to changes in variation in open systems whilst natural limits are considered more sensitive in heterogeneous data sets and less likely to miss signals in the data (Wheeler 2009). Natural systems (and social systems and any non-closed system) should therefore be assessed using the calculation of *natural limits* (‘Upper Natural Limit’ or UNL; and ‘Lower Natural Limit’ or LNL).

In practical conservation two SBC charts are useful:

The **X chart**, which plots the ‘raw’ data points. Here I term a ‘raw’ data point either:

- the original measured data points ( $X$ ), or
- for amalgamated rolling averages, the 5-point rolling average points ( $\bar{X}$ ).

The **mR chart** (which plots the *moving range* between adjacent ‘raw’ data points). Note this is different information compared to the rolling average of X chart data and will be explained in the following discussion.

Both charts are important, so they tend to be presented together as a pair and termed together as ‘XmR charts’ in the literature. Each chart may indicate a signal in the variation of the data set either at data level ( $X$  for a plot of data points, or  $\bar{X}$  if plotting the rolling means of 5 data points) or in the range changes between adjacent data points (mR) or quite commonly the same signal appears in both. This level of sensitivity across two charts adds a new dimension of insight from the single original source of data.

### *Calculating natural limit lines for XmR charts*

Natural limits are derived using (i) the mean for the data set as a whole ( $\bar{x}$ ), and (ii) the mean of the two-point moving range between adjacent data points which can be calculated in a simple spreadsheet from the mean of those moving ranges (mR). Essentially, for example, for establishing mR in a data set of 20 observations, you would calculate 19 ranges (difference between data points 1 and 2, points 2 and 3, points 3 and 4, and so on, then calculate the average range from the 19 ranges. Importantly, you are interested in absolute range (not whether it is + or –), so on the spreadsheet calculation use the ‘absolute’ function to remove the mathematical sign (+/–) on each calculated range. The mean ( $\bar{x}$ ) is simply calculated from the values of each of the 20 data points.

Limit lines are plotted horizontally adjacent to the data plot using the same X and Y scales. The position of the limit lines can be calculated using mathematical factors to calculate as follows (Wheeler 2000; Seddon 2003):

The X chart usually has three reference limit lines (see Figure 6.2).

- The X chart Upper Natural Limit =  $\bar{x} + 2.66(\text{mR})$ .
- The X chart Lower Natural Limit =  $\bar{x} - 2.66(\text{mR})$ .
- The X chart ‘central’ mean line is the mean of all X points ( $\bar{x}$ ) used in the chart (or all moving average points if used on a large data set).

Note that where a lower limit falls below zero and is meaningless for the metric involved, it need not be plotted; however, the fact it is below zero may be important (e.g. in a bad way if zero population of a species is predicted by the limit or in a good way if human–tiger conflict could predictably be zero).

### **The mR chart usually has two reference limit lines (see Figure 6.3).**

- The moving range (mR) chart Upper Range Limit =  $3.27(\text{mR})$ .
- The mean range line R (mean of all R points in the chart).

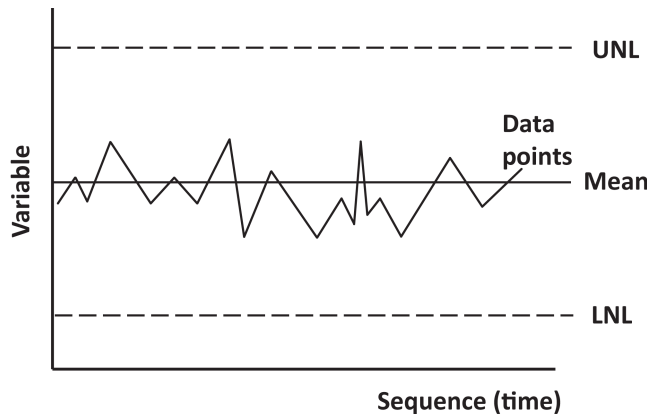


Figure 6.2 A generic Systems Behaviour X chart showing a longitudinal (time series) plot of data points, a plot of the calculated mean from the data points, and a plot of an upper natural limit (UNL) and a lower natural limit (LNL) which are also both calculated from the data set itself. If patterns of data indicate a change in the system the mean, UNL, and LNL are recalculated and replotted.

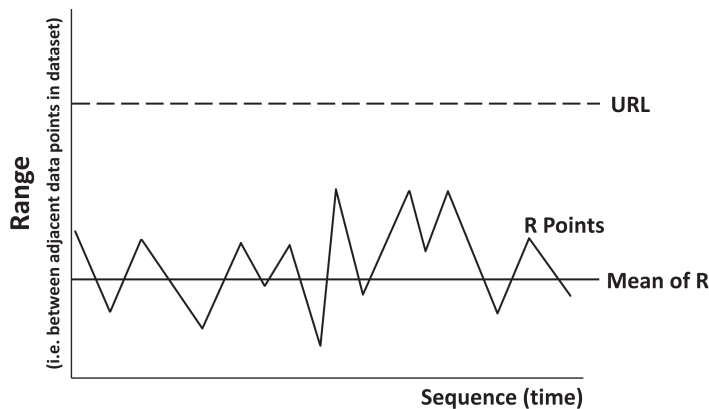


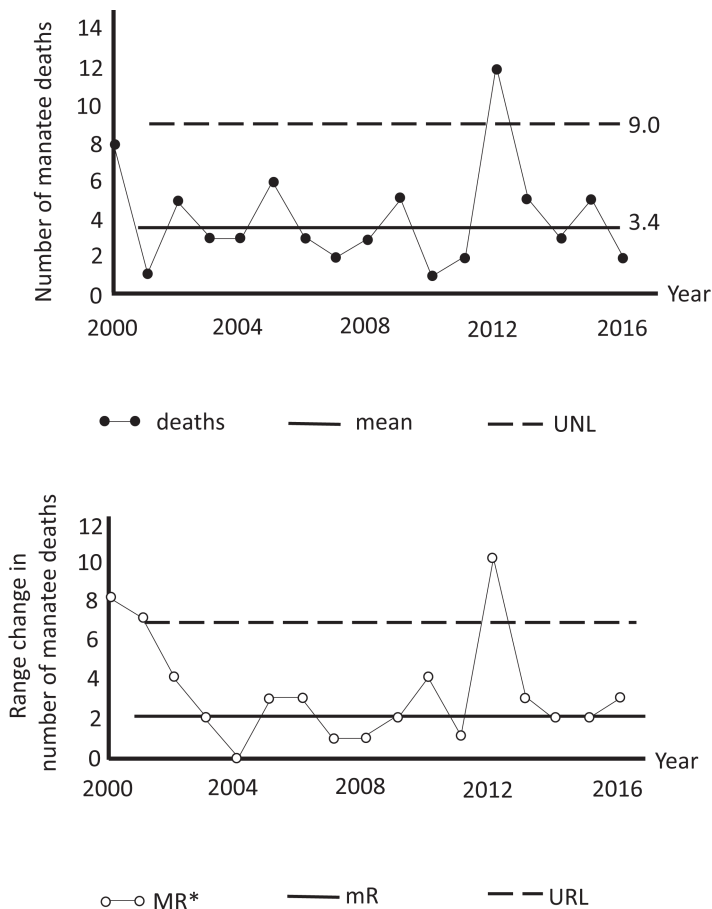
Figure 6.3 A generic Systems Behaviour mR chart showing ranges between data points in (time series) against a calculated mean of those ranges and an upper range limit (URL). If the data rises above the URL, it indicates a signal, which means that something unusual has occurred.

### *Setting up the data and the charts*

In the generic example in Figure 6.2 above ('X chart' or 'individuals' chart since the individual data points are plotted), these two limit lines has been calculated and plotted (an upper and lower natural limit). Figure 6.3 is the mR chart or 'Moving Range' chart since it plots the ranges between adjacent data points. As mentioned earlier, when presented together they become an XmR chart ('Individual Values and Moving Range' chart). In XmR charts, the data points are plotted and joined by a line, with a separate plot line for the mean (represented on the plot as a Centre Line =  $\bar{x}$ ) but differ on the calculation of limit lines.

An example pair of XmR charts based on field data is shown in Figure 6.4, which displays data points on annual mortality of manatees in Florida, from regular survey data published in the United States. The mean mortality is also plotted as a horizontal line.

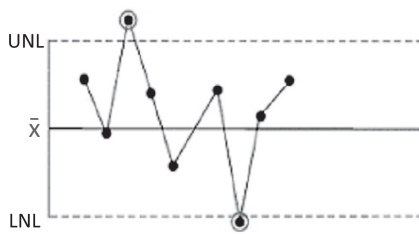




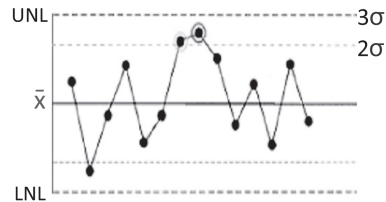
*Figure 6.4* A pair of XmR Systems Behaviour Charts (SBCs) for manatee mortality. The X chart (top) of plotted data points also shows calculated mean and natural limit lines (in this case only UNL shown as LNL is below zero), and (bottom) the R chart of moving range points for the same data set (R being the difference – range – between adjacent data points), plus the mean (of R) and the upper range limit line URL. In this case, both charts confirm the exceptional incident in 2012. With some data sets only one of the two charts will indicate an important change worthy of investigation.

### Observations in SBC data

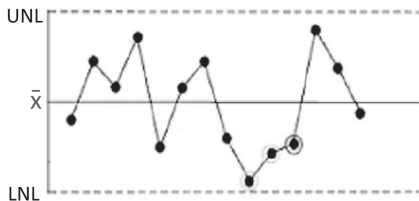
Data patterns in the SBC will indicate if any points (or sequence of data points) suggest a non-random signal. A signal is anything in the system that is worthy of investigation. As managers we are interested in separating *exceptions* from background variation (noise). If the data variation is within limits, then the system is essentially stable (it may not be perfect, but it is stable). Any differing patterns as illustrated in the following generic examples in Figure 6.5 are a ‘signal’, which may inform a management action or decisions. In some data sets we may see the data shift in patterns which suggests specific underlying changes in the system. The shifts will be defined by one of the rules 1–7 in Figure 6.5.



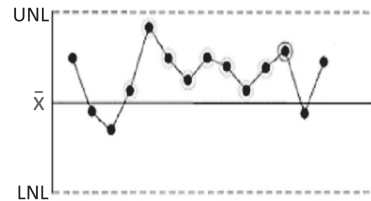
**Rule 1:** any data point which lies outside the natural limits of the process (or mean  $\pm 3\sigma$ )\*



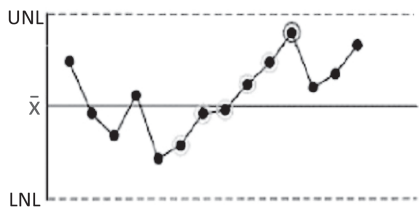
**Rule 2:** any two consecutive data points which lie outside warning limits (mean  $\pm 2\sigma$ ) used in SD charts monitoring 'closed' systems\*



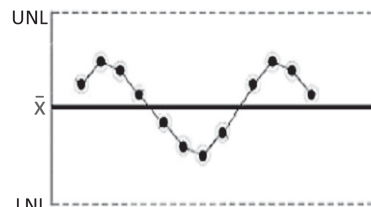
**Rule 3:** three or four consecutive points are closer to the limit lines than to the central line (mean  $\bar{x}$ )



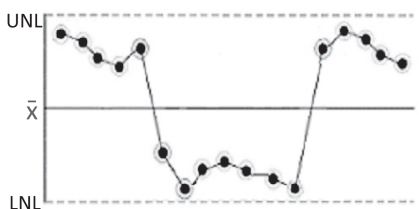
**Rule 4:** sequence of eight or more data points occurring above the mean or below the mean



**Rule 5:** a run of seven decreasing or increasing data points indicates a fundamental change to the system



**Rule 6:** repeating cycles above and below the mean suggest more than one process exists



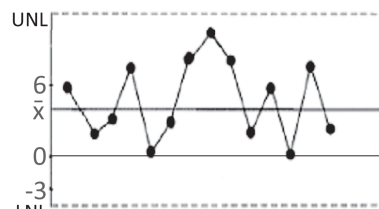
**Rule 7:** broadly repeating patterns in data indicate subsets of data which need to be separated

#### All charts:

$\bar{x}$  indicates the mean in the run of data

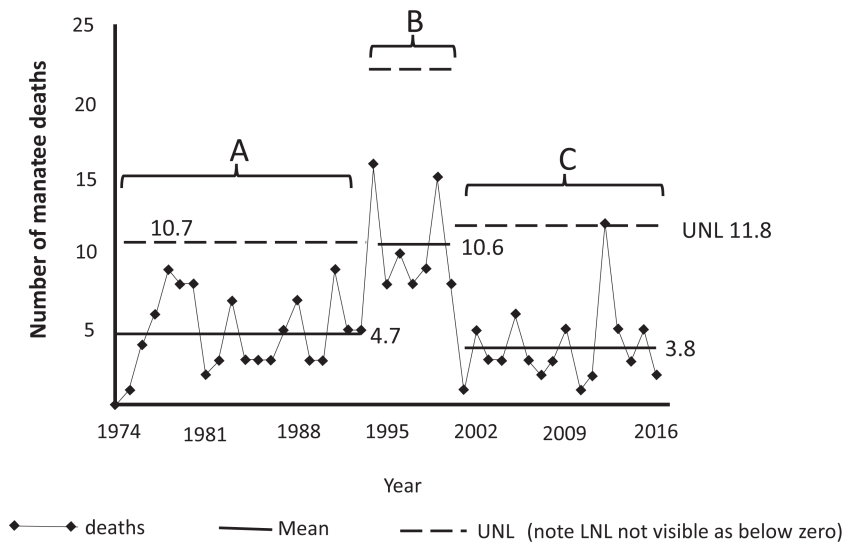
UNL indicates calculated Upper Natural Limit

LNL indicates calculated Lower Natural Limit



**Rule 8:** where a natural limit sits outside the acceptable range, then that data indicates the need to change the system to ensure that only outcomes within an acceptable range will be regularly and predictably achieved, e.g. if a calculated limit for an endangered species population size sits below zero

**Figure 6.5** Summary of Systems Behaviour Chart Rules (see Black 2015, adapted from figure format devised by G. Burden, personal communication). Circled data points show exceptional points under each rule. Spotting these patterns allows identification of exceptions (including systemic changes) and consideration of management options and decisions or reaggregation of data (e.g. for deeper analysis) or replotting of limit lines.



*Figure 6.6* SBC for manatee deaths in canal locks/floodgates in Florida (1974–2016), showing natural limits (this is an ‘XmR chart’). In this example, the lower limits are below ‘zero deaths’ so are not plotted on the chart (since  $< 0$  deaths as a concept is meaningless). The chart shows that three ‘systems’ of mortality are identified: (A) years 1974–1993, (B) 1994–2000, and (C) 2001–2016 (derived from Black and Leslie 2018) with means and Limit lines recalculated in each case.

### Following the logic – manatee recovery and threat management

An example of shifts in a system is shown for manatee deaths in locks in Florida from 1974 to 2016 in Figure 6.6. In this case manatees were experiencing different mortality in the periods 1974–1993, to the period 1994–2000, and again different in 2001–2016. In each case, the mean UNL and LNL for each group of data points has been recalculated to identify whether any further signals are indicated *within* each period.

**An exceptional instance in lock gates:** Importantly, in this case, the exceptional year point 2012 in system C is identified. This would not be seen if the limits had not been recalculated. The period for system C covers the time when all locks had automatic anti-crush mechanisms in place and a new safer lock system had been fully established with lower manatee mortality, yet a strange exception occurred (i.e. a one-off peak in deaths) in 2012, which was nothing to do with lock gates but which was certainly worthy of further investigation (see Black & Leslie 2018). Other one-off circumstances in a specific month drove manatees into shallow water adjacent to a specific lock coincidentally at a time of disturbance due to construction work at the location, which affected animals’ behaviour causing high mortality in the lock.

**Systemic changes in watercraft collisions:** The Florida manatee population is a useful case since there is a substantial database of population numbers and mortality from various causes. Whilst the data in itself is reported as tables on an annual basis (detailing figures by month and by county), if the data is represented as longitudinal information on SBCs, new insights are possible (Black & Leslie 2018). At first glance, the number of manatee mortalities due to collisions with watercraft in Florida (Figure 6.7) looks bleak, with a huge rise since the 1970s. However, the SBC shows three ‘systems’ which, in each case, by observation are stable (performance within UNL and LNL and no violation of SBC rules).

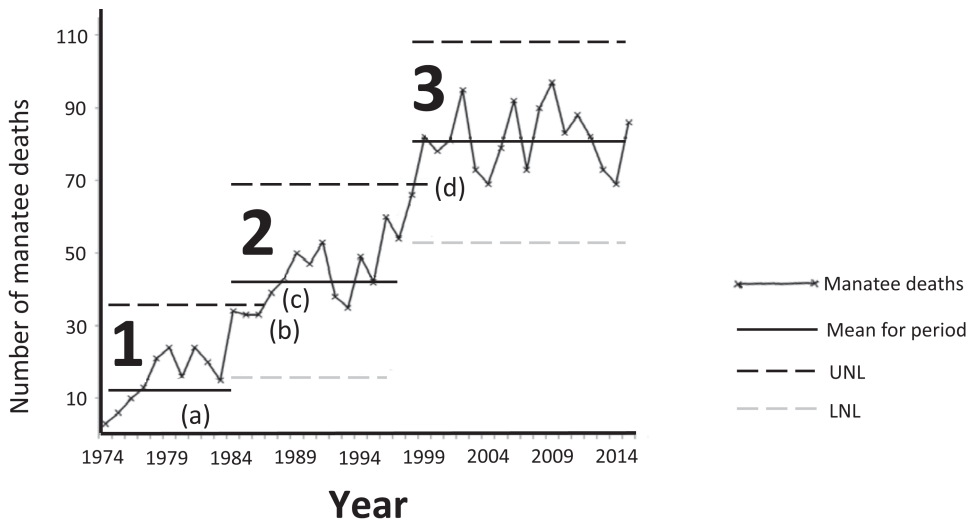


Figure 6.7 Florida manatee mortality (1974–2015) due to watercraft collisions showing three systems, illustrating (a) where LNL below zero indicates zero collisions as a reasonable expectation in the initial system ‘1’ up to the early 1980s, (b) where points first consistently move above the mean and then at (c) points continue above the UNL (grey dashed line) indicating a shift to the system ‘2’, and (d) where a new, current system ‘3’ starts above the previous UNL (grey dashed line). The distance between outer natural limits of system ‘3’ (1998–2015) is similar to the second (1984–1997) but at a higher mean annual number of manatee deaths.

Source: adapted from Leslie et al. (2017)

**Efforts to reduce manatee collision mortalities** include the 1978 Florida Manatee Sanctuary Act regulated boat speeds, and later county-level slow-speed buffer zones were also introduced.

**Background effects on manatee collision mortality** concern two phenomena occurring between the 1970s and the present day which have a material effect on manatee conservation. First, the number of manatees increased significantly, so the chances of a collision rose proportionally. Second, the number of registered boats in Florida increased from 1984 to 1990 and again from 1994 to 1999. Both effects explain the ‘jumps’ in the number of manatee collisions in these periods.

**A real impact from waterway controls** is observable since despite increases in waterway traffic and manatee numbers (and observed collision deaths), the waterway speed controls had a clear stabilising influence on collisions. The rise is not out of control. Clearly, continued efforts are required to control collision occurrences, which would be demonstrated by either future reduced variability in the data or even a drop to a lower-level system of collision mortality.

### Identifying optimum recovery through population, habitat, and ecosystem data

A ‘stable system’ is indicated where data consistently falls within the natural limits and does not violate any of the rules mentioned previously in Figure 6.5. This steady state will be good if the limits indicate *acceptable boundaries* for the limits. If not, further improvement will be required. This requires an entirely different change management strategy, which is discussed as follows.

The simplicity of the SBC is that it visually presents data to indicate the nature of the distribution of data points over time. This is far superior in providing insight than a table of numbers

and when combined with statistically calculated ‘natural limits’ provides useful indications of what is happening in the system of concern. These limits show the expected outer reaches of the data range, and so quickly help identify any outlying data points. The SBC approach has been used to present evidence of decline in mammal populations (Stringell et al. 2013; Black 2015; Leslie et al. 2017) and the population status of endangered birds (Pungaliya & Black 2017; Pungaliya et al. 2018). Several graphical treatments have been developed to support analysis of species presence data to identify stability, decline, population size, and vulnerability (Black 2015). SBCs have the advantage of allowing consideration of observations of mixed quality and veracity, since exceptional changes in data can be identified and cross-checked with circumstances of observation.

### Managing systems exhibiting routine variation

Routine variation showing all data points within the limit lines (UNL and LNL) and not violating any patterns is termed a ‘stable system’. Stable systems are useful for managers as they allow *prediction of future performance within the limit lines*, subject to no other changes occurring.

A stable system may however be operating at a disturbingly poor level of performance. For example, a reptile population could be stable, but at such a low level of numbers that a freak exception such as a flood, fire, or sudden encroachment by wildlife trade collectors could wipe out the species. In this instance, improvements must be made to allow the population to shift to a higher, stable level, since it is simply unacceptable to allow the stable population to be so vulnerable to potential catastrophic instances, even if one-off occurrences; the outcome could see extinction of the population. A head-starting approach for reptiles (i.e. collection of eggs and predator-free captive hatching followed by release to enable higher survival rates) could be one method to increase the population and provide a higher base populations for their survival (i.e. an improved system of population survival). If all factors are sensibly considered, a managed head-starting process could increase the population in one hit, and its ongoing stability thereafter could be monitored and potential future head-starting releases could be considered. However, head-starting alone may not be enough and additional population could simply cause the system to fail if for example the habitat is already at carrying capacity or some other restriction such as boundaries to natural dispersal.

At a management level there is a difference between meddling (doing an initiative which causes the system to fail) and careful systematic management of improvement. For example, releases of California condor into the wild appeared successful yet the adult birds began to roost at locations near to field stations and other man-made structures, not their natural roosting sites (Walters et al. 2008), and since individual birds responded to the behaviour of others, groups of condors ended up aggregating at these field stations (unnatural behaviour). This affected the overall population’s ability and preferences for foraging the landscape, and nesting was very difficult to encourage. The system of bird release had failed, so careful new release interventions needed to be redesigned.

Improvements of stable systems require very careful improvement and innovation processes, which are informed by data. The benefit of using SBCs is that either successes or flaws in approach can be detected early by noticing exceptional changes in the system.

### Management responses to exceptional occurrences in performance data

The most important element in developing practical understanding of variation in natural systems is a clear perspective on how to respond to different types of *signal* that appear in the data.

Our interest is from a management perspective; what decisions or actions should be undertaken. We are not interested in scientific proof, in that strict sense, rather it is the impact of incidents and initiatives which is important. This is a form of *action research* that fills the science–practitioner divide. The important point when considering an exceptional occurrence (anything relating to rules 1–7 in the previous Figure 6.5) is as follows:

Any exceptions to normal variation *should not be acted upon* as if they are part of the system.

Any systemic action in response to an exceptional signal would make the system worse, such that it would become ‘out of control’ (and we would not know what to do next to recover it).

### *Single exceptional occurrence*

A single exception (see Figure 6.5, Rule 1 and Rule 2) should, in principle, be ignored, in that *no direct management action should be taken* to make amends for the incident. However, that does not mean that there should not be an exploration of potential learning. In the case of an exceptional level of manatee mortality in the lock gates of one county in Florida, the one-off unusual situation in 2012 was worth investigating (Black & Leslie 2018) since future contingency plans could be developed for a once-in-a-generation re-occurrence.

### *A shift towards or away from the mean for a given metric*

Statistically, you are very unlikely to have three or four data points in sequence above or below the mean. Such an observation indicates (Rule 3 and Rule 4, Figure 6.5) that something unusual is happening. This is a really useful signal presented in data as it indicates a non-random change in the system which could easily be overlooked in a table of data. For example, in CASE BOX 6, Figure 6.8 shows data on turtle hatchling success rates. The whole data set for years 1 and 2 looked similar enough after a new method for relocating nests was implemented at the start of year 2. However, if we put the data on the chart, the first few weeks show hatchling rates have fundamentally changed (the ‘nest system’ has changed and got worse), and the method should have reverted to the year 1 approach for the last two months of the season. This could have been achieved at zero cost for far higher hatchling success rates and a larger population overall.

### *A decline or increase in data in the system*

The decline or improvement pattern (Rule 5; Figure 6.5), which people often refer to as a ‘trend’, is a common one observed in species recovery or threat reduction initiatives. However, in statistical terms, these changes show instability; declines and improvements are, statistically speaking, ‘out of control’ in that it is not possible to predict the likely next data point within any expected range. In other words, an improvement pattern needs to be carefully monitored for its effects. An improving situation will depend on the metric measured, and monitoring of multiple metrics is usually sensible. This means that repeated measurement until the decline (or improvement) levels out or is reversed is very prudent. For example, an increase in elephants in a national park may look good, but it could be a population explosion which causes environmental devastation which affects other rare species or worse a mass mortality event for the elephant population due to starvation. Similarly, threat reduction may be assumed by a decline, but actually a threat can only be considered reduced once the data shows the system ‘levelling out’ at a new, predictable lower level.

***Regular pattern in the system (Rule 6 and Rule 7)***

Any regular repeating pattern in the system suggests that there is more than one system in place. This requires consideration of the options, and then splitting the data in a suitable logical fashion, to identify if stable systems can be identified. Repeating cycles (the data trending up and then trending down, then up again – as in Rule 6 in Figure 6.5) suggest that more than one process is in place.

Alternatively, if there is a repeating pattern of bunching (a series of high data points followed by low data points (as in Rule 7), then the data is suggesting that there are two subsets of data. The trick here is to divide the data according to the likely subsets. For example, you could have a simple measurement error, such as the number of observations by an experienced field researcher on the one hand and an inexperienced one (who may misidentify birds in a predictable pattern) on the other.

**Identifying impact of interventions – observing a true ‘shift’ in the system**

The most important function of an SBC is in allowing managers *to identify and understand whether an intervention has had a desired impact*. The impact of an intervention will be indicated by a shift in the performance of the system. If there is no change in the system (or it gets worse), then the intervention has no impact and should probably be cancelled and the method revisited (see the turtle head-starting example in CASE BOX 6).

***Lags in the system***

Before cancelling work, be careful to consider whether there is any lag in the system, in other words, whether you might expect a delay in impact. If so, even if results do not change, continue with the intervention but monitor the results. After time with no change, remove the intervention – since it is having no effect on the results you are wanting to influence.

***Making real improvement visible (not masked)***

Other effects can suppress visible improvement such that sometimes an intervention is undertaken but overwhelming external factors mask its impact. Use of SBCs tends to enable better understanding to avoid this situation. An example is waterway collisions with manatee, where the intervention (speed limits) had a helpful stabilising effect on collisions for a system, yet there was actually an exponential increase in watercraft in the region. A table of manatee mortality figures would just show continual alarming increases in numbers. Although collisions still increase, on the chart the positive stabilising influence of the speed restrictions can be seen in the data (see CASE BOX 6), justifying the intervention.

**Be aware of measurement effects** but be confident that if measurement error is random, it will be subsumed within background noise. Similarly, be confident that if there is a significant effect (such as poor measurement by untrained observers, or a failing piece of equipment, or a procedure carried out at the wrong time of day), this will appear as an exception in the SBC (see Figure 6.5).

***In summary a shift in the system as observed in the SBC is a true shift in the system***

A shift in the system may occur for reasons known or unknown, but the cause is attributable to a specific change, and that change can be investigated and identified. This is an act of leadership, since you must choose to investigate to gain better knowledge so you can develop better

methods, more effective interventions, and have a real effect on performance and biodiversity recovery.

Sometimes, the cause of the shift will be what you have done (such as instigating a waterway speed limit), or it might be something unexpected (a novel disease infecting a population). Whether it is down to you or not, clearly it is worth knowing about!

*In essence the purpose of performance measurement is to inform and enable biodiversity recovery* – it is an outward-facing activity. It is not merely conducted ‘to tell us how well we are doing’.

How interventions are designed and managed to enable positive change is discussed in Chapter 11, including identifying suitable points of intervention, theories of change, behavioural change (psychology), innovation, and project management. The way you look at and use data, and how you use or explore the knowledge that it provides, is one measure of your leadership ability.

### **Performance metrics – creating a balanced scorecard**

Clearly, the identification of a suitable suite of performance measures to monitor conservation work is vital. It is useful to describe measurement through use of the term ‘metrics’ (we use the word ‘metrics’ instead of ‘measures’ to avoid confusion with the term ‘measures’ used when we mean ‘interventions’ or ‘initiatives’). To avoid a bias in metrics (i.e. deliberate or unintentional measurement of what you prefer, rather than what is important), it can be useful to develop a ‘balanced scorecard’, which is a dashboard which shows results for a spread of metrics to give a rounded view of performance.

Do not use too many metrics as this will consume too much time in measurement and monitoring and will distract the leadership team into ‘watching the numbers’ instead of seeking to understand the system (the latter needed to lead the team in purposeful work). When developing a set of metrics to monitor your programme keep in mind the concept of a ‘performance dashboard’, namely something which at a glance can give you a sense of how things are tracking across a range of metrics.

Tables of numbers are less useful as you cannot easily visualise relative changes. Charts such as SBC present much more information (time, variation in performance, changes, performance relative to limits, mean, etc.). Avoid comparisons of ‘this year v last year’ which are of limited value, as shown by any organisation working during or after the impacts of the 2020/2021 Covid-19 pandemic period.

Consider whether any of the following areas of performance are important for your programme (see Black & Groombridge 2010):

**Biodiversity metrics** include direct measures (biotic measures but also any relevant abiotic measures if important) such as metrics relating to species, populations, habitat quality, and ecosystem function. Also, indirect measures of impacts on biodiversity, such as threat status, natural resource use, people in the landscape (agriculture, resource use, pastoralism etc.), and areas under protection.

**Operational metrics** including the main areas of work and the performance of ‘core work’ processes (see Chapters 8 and 11), project milestones, financial performance, and forecasts.

**Employees/people, volunteers, and community partners** are important depending on the purpose of your programme. Several useful metrics can monitor staff (staff turnover, vacancies, capacity), and volunteers (involvement, support, commitment, capacity). Often-neglected areas in larger organisations are people’s well-being, motivation, morale, and personal growth. If neglected the team can become demoralised, dysfunctional, low performing, or people can leave unexpectedly causing disruption (Loffield et al. 2022). These softer issues



are harder to evaluate but can be measured in simple surveys (in smaller teams you can simply have regular, honest conversations or team discussions). With people metrics we are interested in the ‘inside view’ of the organisation.

**Public support (in wider society)** can be monitored by measuring awareness, attitudes and project reputation (in surveys), support (social media), donations, and media. These metrics should be simple and easy to access. For programmes with a scientific focus, metrics of scientific output (e.g. published articles) are important. Public metrics give an ‘outside view’ of the programme.

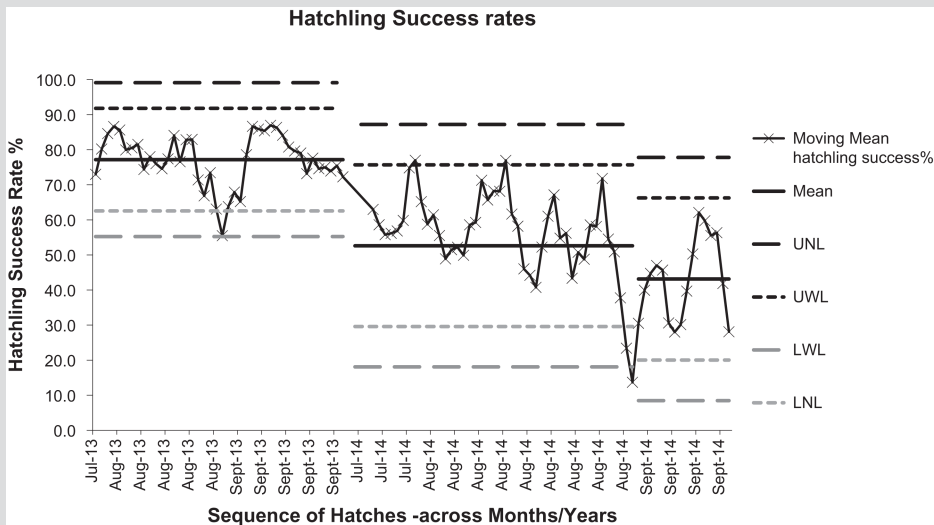
Remember that many important aspects of conservation *cannot be measured* but still need to be worked upon. Do not fall into the myth that ‘if it is not measured it is not managed’ since this is far too mechanistic and misses the point. For example, strong collaborative partnerships are vital to most programmes, but how do you measure that? Acquisition of new skills in staff is vital, but how easy is it to measure in a practical and cost-effective way? In these instances, we have to *trust* that these aspects work. Through our own observations and willingness to use and discuss other knowledge (intuition, faith, even rumour) we can explore whether we understand what is going on or if we need to investigate issues further, as discussed in considerations of knowledge in Chapter 5.

### Case Box 6 Sea turtle head-starting operations in South Asia

An annual hatchling head-starting operation in Sri Lanka (Leslie et al. 2017) saw a change of method in Year 2 aimed at increasing the number of successfully hatching eggs. At the end of Year 2, results (recorded in tabular form only) showed that the method was less successful, so the old method was reinstated in Year 3. However, had the same data been plotted on an SBC (Figure 6.8) the managers would have observed in the first month of the Year 2 operation (July) that the new method was underperforming compared to the system for the previous year.

The SBC in Figure 6.8 represents the percentage hatchling success rate for a sample population incubated in the ex-situ hatchery over time. Using the five-point moving average, the SBC shows hatchling success rates in both 2013 and 2014 in a steady state shown by data sitting within natural limits for their respective years. The run of data across the two years breaks three of the SBC rules; first showing two consecutive points outside the upper limit, second, a sequence of points closer to limits than the mean, and third, a sequence above the mean or below the mean. These all suggest a systemic change between the years 2013 and 2014. The mean hatchling success rate reduced from 77.3% in 2013 to 52.6% in 2014.

The SBC identified a non-random change in the hatchling system with a decline of the performance of the system in Year 2 compared to Year 1 (Figure 6.8). This follows a change in nest burial method in Year 2, increasing the density of nests in the protected hatchery. Whilst Year 2 was considered initially ‘in-control’ (points remaining inside recalculated natural limits) it represents a lower-performing system than Year 1. Furthermore, the last data points in August Year 2 drop below first the LWL line than the LNL, indicating at that point in time that the hatchling rate has dropped ‘out of control’. The SBC indicates to hatchery managers *by July of Year 2* that the system is underperforming, and August data confirms the case, and finally



*Figure 6.8* Turtle hatchling data from two breeding seasons originally presented in tabular form to compare a change of method in nest relocation to a protected site.

*Source:* Adapted from Leslie et al. (2017) from field data (F. Blackett, personal communication)

the last data points highlight the error of the approach. From an operational perspective, since both Year 1 and Year 2 systems are essentially stable, human error appears not to be a factor affecting hatchling success. The fundamental change in nest success arises from adjusting the method (in this case, the size of egg burial areas and space between adjacent nests), and reverting to Year 1 method will restore the more productive system. The lesson from SBC is that managers could have reverted to the old method and restored hatchery performance for the remaining two months of the Year 2 nesting season – an opportunity was lost.

## Chapter 6 Reflection – insights into variation and managing performance

When managing performance, whether within an organisation, or in the natural systems it is working upon, a leader needs to understand that:

- Systems are characterised by complexity, interconnectivity, and unintended consequences.
- Targets and management by objectives distract people from the core purpose of their work.
- Avoid management by reports. Also avoid management by committee.
- Check–Plan–Do cycle can be used on the job for implementing improvement or innovations.
- Pareto analysis (80:20 rule) identifies the main causes or influences that steer work issues.
- Variation in data is due to common causes (background noise) or special causes (signals).

- Management responses to common cause changes and special cause changes in performance data are fundamentally different – this is a leadership principle.
- Useful SBCs for conservation are the X-chart and the mR chart, using natural limits.
- Identifying systemic changes from performance data (as illustrated in Figure 6.5):
  - One or two *outliers are an exception* (Rule 1 or 2), and no direct management action would be taken. However, there should not be an exploration of potential learning.
  - A *point-by-point shift towards or away from the mean* (Rule 3 or 4) is statistically unlikely. Three or four points in sequence indicate something unusual to investigate.
  - A *decline or increase of seven points in the data* (Rule 5) shows a real decline or improvement pattern and a subsequent change in the system, so recalculate limits.
  - Regular patterns in data (Rules 6 and 7) such as shifts or cycles suggest there is more than one system being observed, so identify them and separate and re-plot each set.
- The best way to detect performance changes is through observable shifts in the system.
- Develop a balanced scorecard or an ‘at a glance’ performance dashboard covering: biodiversity metrics, operational metrics, employee metrics, public/societal metrics.

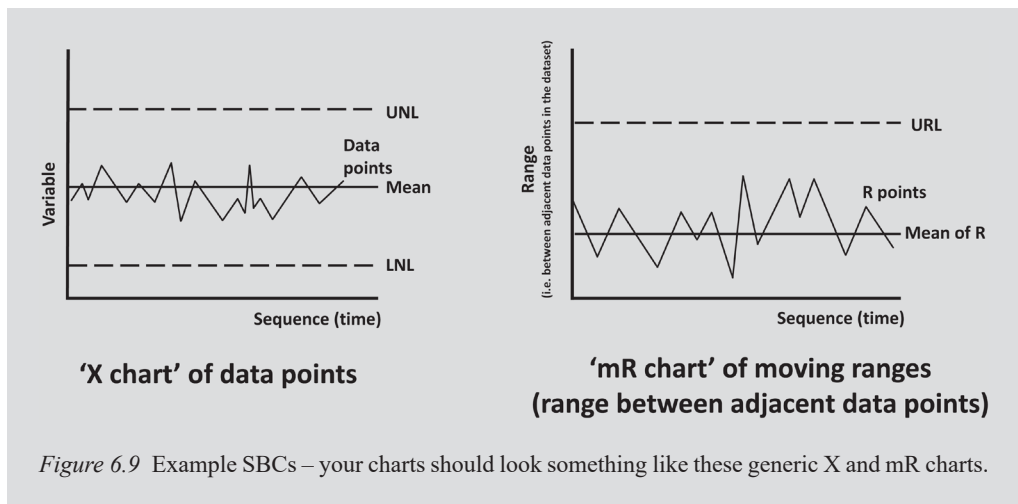
### Exercise 6 – types of metrics used to monitor your programme

- (1) List the areas of performance which you use in a table as illustrated in Table 6.1 here. Consider any gaps or any areas where you have excessive numbers of metrics. Consider what would be the most helpful measures of performance for your programme that relate to its purpose.
- (2) Plot a dataset onto XmR Systems Behaviour Charts – create both an X chart and an mR chart (examples shown in Figure 6.9) following the guidelines. Use any data with about 20 data points, but also remember that you can use smaller samples if data is limited – insights can still be gained from calculating natural limits.
- (3) Review the SBC and identify any points of exception or change in the system following the rules in Figure 6.5 and the guidelines in this chapter.

Consider how to discuss the potential of SBCs for the data which you monitor for your programme.

Table 6.1 Self-audit of programme performance measures.

Area of performance	Metrics used in the programme
<b>Biodiversity</b> (Species, ecosystems, habitats, threats, human use, people in the landscape)	
<b>Operational/programme-related</b>	
<b>People</b> (staff, volunteers, community, partners)	
<b>Public/society</b> (media, reputation, awareness, support, interest, donors)	



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## 7 The psychology of conservation leadership

### Personal Perspectives – Introduction

Success in leadership involves two fundamentals; having a correct sense of purpose and getting people to follow. The preceding chapters provide perspectives and new areas of understanding that will allow you to get a stronger sense of purpose, to reduce common distractions that you focus upon, and reducing the influence of your own ego and self-interests.

This chapter explores ideas on followership. Leadership in itself has many interpretations in different cultural contexts; however, followership is essentially the same thing in any context. Followers make the decision to follow. This is different to compliance (as a follower) or coercion (as a leader). Followership is a choice which can be rescinded by the follower. Of course, in many situations the followers have limited choice; they might need to keep their job or keep in the good books for the next promotion. In those latter instances people ‘follow’, for better or worse, and may continue to follow when they have little choice and are otherwise badly disadvantaged, but this behaviour is just ‘compliance’ not true followership, and compliance eats away at motivation and contribution. A leader who relies on a compliant team is unlikely to get the best out of people.

Psychological aspects of leadership can appear like a ‘black box’ to many would-be leaders. This can be viewed as a negative unknown territory or a potential box of tricks that perhaps could be used to sway people to do what you want. It is neither. The worst a manager can do is assume behavioural interactions can be manipulated to the leader’s advantage. Behaviour and psychology can be used to manipulate people of course (see any marketing or political campaign); however, as a method for leading people, this approach is counter-productive. In my experience people are good at spotting manipulative behaviour, and the consequences for the manipulative leader in terms of game-playing, low contribution, loss of good people, and masking of problems are massively damaging. I have not seen any manipulative leader able to leave their post in a blaze of good feeling and outstanding results.

Progressive leaders, whether early in their career or drawing upon a wealth of experience, want to get the best out of their people. This means tapping into the intrinsic motivation, creativity, expertise, and insight that each member of the team can bring to their work. We want people to be able to do their work and to improve their work. We want this done in all their interactions with colleagues and partners, whether it is in weeding invasive plants when recovering habitats, or cleaning toilets in the field station, or running international planning workshops.

### **What do we mean by ‘psychology’?**

One of the common misconceptions that people have concerning psychology is thinking that it concerns the operation of the mind. In terms of working with staff and communities, psychology is not really about minds at all (note: mental functions, dysfunctions, and mental processing are addressed by neuroscience, psychiatry, and some specialist fields of clinical psychology and specific fields of experimental psychology). When we consider the psychology of work, teams, motivation, behavioural change, high performance, recognition, social identity, leadership, and so on, *we are seeking to understand people’s behaviour* (Buunk & Van Vugt 2008). We need to better understand what makes people make choices, not make choices, value or ignore things, get involved, perceive information, disrupt work, deviate from the norm, accept others, and so on.

*Psychology is about understanding people’s behaviour.*

This perspective remains important, of course, since as we have explored in previous chapters (Chapters 4, 5, and 6), the ‘mind’ concerns different concepts, such as theories of knowledge and perception (e.g. how we see other people, or information, or the world around us) which we address with completely different skills, tools, and learning (see also Chapters 8 and 9). Once we accept this, as leaders we can shift our attention away from ‘psychological’ assumptions about what people are thinking and instead *move towards addressing issues which are influencing people’s behaviour*. This enables us to move away from wafting around clumsily in the ether of ‘minds’ of others, towards the more solid ground of actions, observations, and conversations.

### **People’s behaviour rarely follows ‘cause and effect’**

A common assumption of managers is that if they do something, or implement something, or say something, or specifically, ask someone to do something, then the desired outcome will arise as planned based on the expected reactions of people (Jacobs 2009). This is simply not the case. To take a trivial example. If you took a loose wad of \$100 notes and walked into a crowded park and shouted ‘grab some free money’ and threw the loose notes into the air, you would not simply see people collecting money but instead a whole range of behaviours: some people might grab the money, some just one note, others many more, some may start fighting, others may watch suspecting some sort of scam, others might assume it is an improvised entertainment sketch and laugh at the people scrabbling on the ground in front of them, others may run away fearing a riot, a passing police officer might arrest you for causing a disturbance. Clearly, any person’s behaviour is driven by many underlying factors in addition to the external ‘cause’ or influence (Heath & Heath 2011).

This misconception of cause–effect behavioural influence has previously driven many conservation organisations to waste huge amounts of money on things like education programmes, awareness raising, compensation schemes, and fines, where the intervention was based on a poor understanding of the system of factors that really influence what people decide to do. Similar mistakes have been made with relatively straightforward operational issues with workers, such as occasions of offering pay awards, or training, or promotion, when leaders unexpectedly find themselves being disappointed when staff appear ‘ungrateful’.

We need to get a much better understanding of the range of psychological factors at play (Buunk & Van Vugt 2008), so that we can take a more mature and effective approach to leading, encouraging, and influencing the people with whom we work.

***What elements really influence a person's behaviour?***

People's behaviour will be steered by a number of underlying elements, some of which are 'within the person' and some of which are external to them (Buunk & Van Vugt 2008; Jacobs 2009; Peters 2012) and include layers of beliefs and values, the person's psychological disposition, their previous experiences, assumptions, and expectations, as well as on the surface the person's well-practised (often to the point of being automatic) behaviours (see later). These reference points can sometimes be revealed in what poker card players call 'tells' – small indicators of behaviour or conversation that reveal where a person is coming from. Many of these aspects are unspoken, but they are not always confidential since they may be obvious to any observer. However, instead of being shared, some of these traits are not mentioned because everyone assumes that everyone else already knows (such as 'how we behave in meetings'). To better understand and make use of this information, sometimes we just need to start talking about what is going on when we behave as we do at work. We will explore many of these when we consider motivation and working with teams.

In general, some of the particularly important psychological concepts which leaders need to understand are the following:

**Beliefs** – deep-seated ideas, usually developed over a lifetime, which shape a person's values (Coppin & Barratt 2002). These may include a sense of 'right and wrong', value for others, self-worth, religious beliefs, sense of wonder, compassion, and so on. They are relatively permanent but not necessarily unchangeable, although it requires significant personal challenge or conviction to shift beliefs.

**Attitudes** – assumptions and practical guiding principles, shaped by personal values and beliefs. Attitudes are more straightforward to sense and include gender stereotypes, respect or disrespect for others. We might aim to 'change people's attitudes', but this can be a very difficult thing to do 'head-on' as people will immediately resist the attempt as an attack on their identity (Jacobs 2009).

**Norms** – the usual way of operating in a family, team, or community: 'How we do things'. Norms are habits, patterns of behaviour, and traditions and can cover everything from manners, words and phrases, dress, physical contact, non-verbal behaviour, rules, taboos, roles (e.g. relating to age, gender or social standing), responsibilities, permission (House et al. 2002; Dickson et al. 2003; Ellemers et al. 2004). Very often norms are implied, are 'known' by everyone, and have evolved over time. Other norms are explicit such as a social or religious doctrine.

**Identity** – how a person sees themselves relative to others, and this can take many forms (Ellemers et al. 2004; Epitropaki et al. 2017). If a person strongly identifies as, for example, an animal rights activist, it may impinge on their work behaviour. Other individuals might identify themselves as 'the devil's advocate' always questioning the approach of others with helpful intent but which can be a distraction. Other aspects of identity can be influential (in helpful way or sometimes can increase complications), for example gender identity when working in traditional cultures or cultural identity when discussing local needs. When we consider teams, we are interested in *social identity* (Abrams et al. 2005); namely how people relate to each other, value each other, defend each other, and compete with other teams. Leadership identity is clearly important (Haslam & Reicher 2016), including one's leadership ethos; a person who identifies as a 'heroic leader' will repeatedly behave in a way that reflects that self-identity.

**Controls** – the expectations, rules, or tolerance which change, restrict, increase, limit, or stop a person's behaviour (Ajzen 1991). This can include personal financial controls like poverty or



the need to feed a family. Some social norms (above) can remain as very strong controls on a person, even if rejected by that person at an individual level. Controls may amplify certain behaviour, for example poverty may drive more illegal fishing in a marine protected area. Other controls may be useful tools to reduce or eliminate negative behaviour.

**Knowledge** – knowledge is closely related to attitudes, and accumulation of new knowledge can completely reshape attitudes. Traditionally, conservation education programmes have tended to focus on changing people’s knowledge and attitudes. Unfortunately, knowledge can be easily overridden by other deeper factors that really determine our behaviour (Vygotsky 1978; Peters 2012).

**Behaviours** – what people do. It is important to understand what people actually do, which *may be different to what they say they will do* (Ajzen 1991). This becomes important if we want to measure behavioural change in conservation setting, since if we measure only intangibles like ‘support’ we may be duped into thinking we have succeeded when the same behavioural threats remain unchanged (e.g. illegal offtake).

Clearly, across any collection of individuals, all these elements could have a huge amount of variation, especially with a diverse or multicultural group. It is also important to consider when, for example a Western-educated person works with people from a different culture; both parties’ assumptions about each other may be entirely wrong, even based on simple observations of clothing, facial expressions, or being stood or seated in a given situation (Lewis 1996).

This is a potentially overwhelming level of information to understand and assimilate. Rather than developing approaches to deal with all eventualities, a leader is best prepared by establishing a set of principles based on sound knowledge of key aspects of psychology (Deming 1994). As a minimum, and to prevent a leader operating in an unhelpful or self-sabotaging manner, the main areas to establish a good grounding of psychological understanding include cultural aspects, motivation, followership (why people follow), antecedents and consequences, influence, humility, team identity and development, and interventions to enable behavioural change.

### **Cultural expectations and dignity in leadership**

One of the common questions asked about the tools and techniques presented during leadership training sessions is “Will this approach apply in the national culture in which I am working?”. This is an important and valid question for conservation professionals since we often encounter people from other cultural backgrounds and traditions in our work. I would encourage any conservation professional to become familiar with the national culture of their working environment or local communities (Straka et al. 2018). However, a leader must also be aware that in any work situation, the cultural backgrounds of team members may differ from your own.

That said, it is unrealistic to think that we will ever become a ‘black-belt’ expert in a given culture, unless we choose to embed ourselves in the new society over the long term (including learning the local language, customs, and traditions). This leaves a few options:

- (1) Muddle along, hoping your approach is acceptable and has the desired effect on different people. This is unlikely to work and may expose you to criticism, failure, and conflict.
- (2) Select a culturally neutral and generalisable mode of operation. This is attractive but rather unrealistic. It usually ends up with the adoption of ‘western’ interpretations of good practice which may be counterproductive in many contexts (including Europe and North America: see Chapter 2).

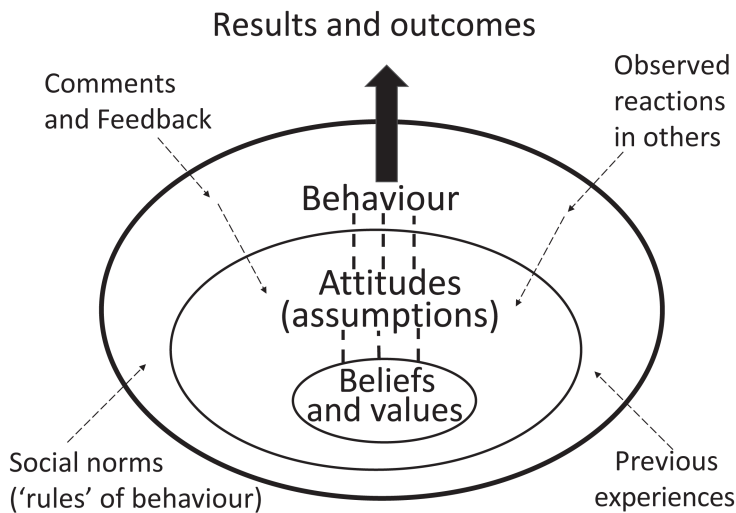


Figure 7.1 The onion ring model illustrates the influences upon an individual's behaviour.

Source: Adapted from observations by Vygotsky (1978), Coppin and Barratt (2002), Jacobs (2009), and Peters (2012)

- (3) Identify a culturally adaptable mindset which steers your approach. This demands a change in leadership mindset and a focus on listening to others as opposed to listening to one's inner dialogue.

Of these, the best approach is for leaders to develop an adaptable mindset (option 3). This requires you to anchor your thinking on a strong and conscious core set of beliefs (or values) as a personal reference point. My colleague John Barratt describes this in the concept of the 'Onion Ring Model' (Coppin & Barratt 2002), which I have reinterpreted in Figure 7.1 in line with the viewpoints of Vygotsky (1978), Jacobs (2009), and Peters (2012). The central, deep issues of belief are difficult to adjust, but the outer layers are easier to adapt and change, including the outermost ring, our behaviour. This is achieved by practising and establishing new skills, approaches, and habits.

***Mutual dignity is the point of interaction where people meet with respect and mutual interest***

Research suggests that working with other cultures, and particularly those which have contrary, opposite, or opposing viewpoints and expectations is best established on a basis of common *dignity* (Mattson and Clark 2011).

The power of a dignified mindset (or value for dignity) arises from the simple observation that treating others with dignity has tangible meaning in any cultural context. If dignity is violated, it is obvious. Also, if an error or insult is unfortunately or unwittingly made, the effort then needed to rectify the situation requires dignity in oneself, plus further pursuit of the dignity of others, through listening and consideration (Mattson & Clark 2011). There is no substitute for dignity.

Unfortunately, dignity is easy to undermine by making simple errors of leadership (see Chapter 2), and people's dignity will also be violated by a bad philosophy of organisation design

(explored in Chapters 4, 8, and 11). An effective leader's mindset is not solely built on an understanding of psychology in itself, but how psychology links to the active management of systems, use of knowledge, and an applied understanding of variation (Deming 1994). This blend of perspectives and practices can initially be explored by having clarity on some of the key areas of human psychology in relation to work, including motivation, identity, and self-perception, how people interact in groups (and why), followership (and engagement), and people's response to feedback.

### **Antecedents, behaviour, and consequences (the ABC of human behaviour)**

The concepts of antecedent–behaviour–consequences (Kahn 1999) is a topic which intertwines with how a leader utilises different sources of power (see Chapter 3) and our psychological reaction to stimuli and events (see Chapter 9). You should consider ABC when you are wanting people to exhibit a desired behaviour (such as working positively with community volunteers) or a situation where an undesirable behaviour may occur (such as taking equipment from the camp stores without telling colleagues). Here are the ABCs:

**Antecedents** – these are things which are put in place or established before any behaviour occurs. This includes the agreement and establishment of desirable values, such as a team having a value of 'honesty', or 'communicating expectations', or 'sharing skills and experience'. It also includes training – on skills, knowledge, or behaviour. Another antecedent is a job description which specifies areas of responsibility for a job holder. All these guidelines are provided to prepare the person to behave effectively in their work. Many of these things can be put in place during induction of new employees ('on-boarding') and be reinforced through updates in policy, team processes, and procedures.

**Behaviour** – this includes work behaviour (tasks, record keeping, maintenance), personal behaviour (timekeeping, personal hygiene, taking breaks), interpersonal behaviour (conversations, interactions, hosting visitors), and other team behaviour (sharing in decision-making, problem-solving, meetings etc.), and any other behaviour relevant to the work (such as being an ambassador for the project). On the negative side, a list of likely unacceptable behaviours is too long to include here.

**Consequences** – these are the things that occur as a result of behaviour under observation. These could be positive outcomes or negative outcomes. They could be outcomes out of our control, such as the reaction of an enraged local politician or a disappointed funder, or things within our control, such as implementation of a disciplinary process or punishment.

A command-and-control leader, which Douglas McGregor essentially described as 'Theory X' management (McGregor 1960) erroneously assumes a cause-and-effect link between reward and punishment. It is incorrect to expect that blunt consequences will make people 'jump' since harsh requirements usually drive unintended consequences elsewhere (e.g. shortcuts in the work, negative attitudes in the team, or unexpected reactions by individuals). On the other hand, for McGregor (1960), 'Theory Y' managers (who value people development and participation) expect things like training, induction, and the provision of clearly delegated tasks to have effect. The Theory Y manager tends to focus time effort on antecedents and leave the consequences until problems arise (and sometimes even those difficult conversations are avoided!). However, for both X and Y managers, there remains an important learning point:

*People's behaviour is driven more by consequences than by antecedents.*

This might seem unhelpful, since consequences arise after the event occurs, but an effective leader will use this knowledge to *design consequences into the work before the behaviour occurs*.

This requires the leader to have a mindset of *being proactive rather than reactive* (Covey 1989). Where possible, the leader needs to anticipate likely difficulties (or poor behaviour) and head it off *before* this occurs. This is not about ‘training’ but is instead about being clear about expectations and intended outcomes. Where these consequences are not stated, or not followed through (e.g. the manager avoids having a disciplinary conversation when it is needed), then bad behaviour will fester and become established as a norm. Conversely, if people understand there is a clear consequence for bad behaviour, they will tend to avoid behaving in such a way. This requires a leadership approach which makes more effort to communicate expectations and requires the leader to be ‘transparent’ in calling out when actual or potential problems occur (e.g. commenting clearly on poor behaviour or poor performance). Whilst this sort of verbal challenge needs to be respectful, there is no ‘beating about the bush’ or waffling around issues. Be direct and clear in messaging what is required and what is not wanted (this is discussed in Chapter 9).

As my colleague John Barratt (Coppin & Barratt 2002) says – *leaders should provide clarity*.

To design the elements of antecedent or consequence into work it is important to consider the basics of psychology so that the intervention has the best possible chance of success. If you design a rule that ‘oppresses’ people, it is likely to have an unintended effect since that rule may drive divergent (or deviant, sabotaging) behaviour, probably opposite to that which you as a manager is intending. In a different way, if a consequence is threatening and creates fear, then people are unlikely to take risks and innovate or even give feedback if things are not working well. The thoughtful design of consequences is important. Even if the manager has the best of intentions, there is a risk of ‘doing the wrong things right-er’ (J. Seddon, personal communication) which is never effective in the long term and is resented by the people who work with you.

As a relatively simple example, if you want new team members to learn the purpose, values, and goals of your programme (so that in future they apply that to their work decisions, time priorities, and interactions with colleagues and outsiders), you could set a couple of possible consequences. One is you could have a written or verbal test which people need to pass/fail. Whilst this has merit, you risk having people ‘learning for the test’ rather than instilling the goals values into how they think. Another option mentioned in Chapter 4, which has been used to good effect by the Maui Forest Bird Recovery Project in Hawaii (Mounce 2018), is to get new staff to run a table at a public outreach event (alongside an experienced colleague) where they can take questions and have discussions with local people. The latter is more stretching but instils in the new starter a deeper understanding of the purpose, work, and values of the programme at a personal, experiential level.

Avoiding these difficulties requires examination of some important principles of organisational psychology (work design, team dynamics, identity, motivation).

## **Psychology of motivation**

Managing morale and motivation of people working in the conservation sector is an important responsibility (Black et al. 2011), since the work is often physically tiring, sometimes emotionally demanding, genuinely stressful, and in some situations, threatening. Over the lifetime of a project, people doing the work will experience many highs and lows, successes and disappointments. Fortunately, the sector enjoys the involvement of a largely committed and vocationally engaged workforce (Loffeld et al. 2022). That said, it remains important to understand how people are motivated: extrinsically (through rewards) or intrinsically (self-motivation) or possibly

a combination of both. There is far more to this than the leader simply ‘hyping people up’, encouraging them, or giving recognition.

To understand the depth of issues involved in nurturing a motivated workforce, we need to start with the two basic reasons that we employ people (J. Seddon, personal communication):

- (1) To do the work, and
- (2) To improve the work

Motivation concerns a person’s ability to deliver the work to a high standard (which can be measured using a combination of quality, quantity, time, cost, or behaviour) and also their engagement with the work whereby they offer creativity and ideas to enable improvements. Some background on leadership theory in relation to notions of motivation is useful, because (as Chapter 2 highlights) some ineffective leadership approaches have become now the accepted wisdom in management circles, despite many facets being disputed or ignored decade after decade. Unpicking the ‘truth’ about motivation is an important part of developing useful leadership knowledge.

Abraham Maslow (1970) made one of the earliest descriptions of human motivation in his famous ‘Hierarchy of Needs’ which suggests that humans start with basic *physiological needs* which when met (adequate food, water, shelter) motivates them to pursue a higher level need of *safety* (e.g. law and order, protection, job security), then once that is fulfilled, to seek *belonging* (i.e. friendship, relationships, identity with a work group), then thereafter to pursue *esteem* (achievement, responsibility, reputation), and at the highest level to seek ‘*self-actualisation*’ (a higher sense of purpose and fulfilment). At a basic level, it would seem that a manager should ensure basic and safety needs are met, that team members have a sense of belonging and then, through their work and sense of achievement and ultimately self-fulfilment. This resonates with Hersey and Blanchard’s (1969) Situational Leadership model (Chapter 3), where workers who are comfortable in their tasks can seek higher levels of performance by taking opportunities to learn more, achieve more, and take on more responsibility.

Around the same time, Frederick Herzberg (Herzberg 1968) described two sets of factors or conditions in the workplace which appear to affect performance. One of those sets of factors influence people’s motivation at work (‘satisfiers’ or ‘motivators’) whilst the other set were things which demotivated people (‘dissatisfiers’ or ‘hygiene factors’). Importantly, Herzberg (1968) argues that *leaders can provide only conditions* in which employees are more likely, or less likely, to be motivated or demotivated.

Herzberg (1968) also emphasised the difference between movement and motivation. He observes that if a leader kicks, cajoles, or threatens someone to make them do work, then the worker will probably ‘move’ and do it: so on the face of it the leader might think they have motivated the person to get on with the work. This is wrong; Herzberg says that movement is only compliance and will involve people doing the minimum required (to keep out of trouble) and will probably make them become disaffected. In Herzberg’s analogy, you can kick a dog and it will move, but it is not motivated. For Herzberg, true motivation comes from within the person; they choose to get on with the work, they choose to work to the highest level of performance. Motivation is about self-esteem.

The most important principle in understanding motivation arises from these established motivation theories and observations in a multitude of organisations, which Herzberg summarised, somewhat startlingly (for many readers) in his famous article in the Harvard Business Review (Herzberg 1968):

*‘You cannot motivate people’.*

The notion that leaders are unable to motivate people appears counterintuitive and is certainly the opposite to most of our past learning from parents, teachers, sports coaches, and managers. The truth is that *people can only motivate themselves*. As Herzberg emphasises, *leaders can only create the conditions* in which people are motivated.

**The relevance of ‘hygiene factors’ (dissatisfiers)** – if the things we focus on changing and improving in the workplace are only *hygiene factors*, we will never motivate people; all we can hope for is that they are *less demotivated*! Examples of hygiene factors are working conditions, supervisory style, and, perhaps unexpectedly, pay. Leaders may think that they are doing the right things by working on these issues and are then disappointed by people not appearing to show more motivation in their work; but it is actually an error of leadership. For example, if you are leading a field team working in relatively tough environmental conditions, providing people with equipment that makes their time more comfortable and enjoyable will create an environment in which people could feel motivated, but it will *not* intrinsically motivate the team. It is not to say that environment is not important. On the contrary, had those same pieces of equipment been ignored, or leaders had refused requests for regular electricity, clean water, or sleeping mats, those ‘environmental’ factors would so frustrate people that it would dissipate their inherent motivation for the job. They would become disgruntled.

**The importance of motivators (satisfiers)** – To enable real motivation, where people work to a higher level of performance, the leader needs to focus attention on ‘motivators’ (Herzberg’s ‘satisfiers’). These things include the content of the job, recognition for good work, possibility of promotion, development of new skills, taking on more responsibility, and the ability to develop creative thinking in the job. These aspects first come out of job design, having the right levels of responsibility and authority in the job, and second through having a manager (i.e. leader) who seeks to develop people to their strengths and potential. Positive encouragement and provision of opportunity to learn and develop skills are equally important, but those must sit within the actual content of the work, so that people can continue to develop a sense of achievement in what they are doing.

### **Autonomy, mastery, and purpose**

Modern motivation research now shows that anything more than the most menial of work activity requires workers to have some degree of *autonomy, mastery, and purpose* to perform at a high level (Locke & Bryan 1967; Elliot & Harackiewicz 1994; Ryan & Deci 2000). Within conservation it is already recognised that problems occur when these elements are missing, with some of the typical characteristics of failing programmes being unachievable goals, excessive bureaucracy, rigid people management, stifling of innovation, and poor decision-making structures slowed by hierarchy (Black et al. 2011). To overcome such difficulties, leaders need greater clarity on those three helpful elements of job design: autonomy, mastery, and purpose in work.

**Autonomy:** the worker needs some level of choice in how to tackle the work, solve problems, and make decisions (Van Mierlo et al. 2006). This will vary according to the role, skills and experience of the worker, and dependency of tasks on other people. One of the most important lessons is to *drive decision-making down to the lowest level of competence* – in other words if people are capable of making decisions, then let them make those decisions. Managers should not waste their time making decisions that someone else is capable of undertaking; this merely wastes managers’ time and demotivates staff.

**Mastery:** people need to have some form of challenge or ‘stretch’, so that they seek to master the skills needed to enact the work. In conservation, there are many somewhat mundane tasks

which nevertheless contend with difficult environments or contexts (Black & Copsey 2014), so work should provide plenty of challenge and variety. Tasks need not be simplified to the lowest level of competence, even digging trenches or fitting fence posts can have elements of challenge.

**Purpose:** the work needs to have meaning. This is most easily achieved by people having a sense of the purpose of the whole programme (or organisation) and being able to understand how their work fits into that bigger picture. Fortunately, many people working in conservation have a strong sense of vocation (Loffeld et al. 2022) so are likely to be enthusiastic about the part their work plays.

These three principles take us beyond traditional considerations of motivation such as Maslow's (1970) hierarchy of needs. However, it is useful to consider some lower-level needs when we think of the controls and limitations placed on people, which may otherwise affect high performance. If staff are concerned about basic needs like food and water or security, it will distract them from work by being a *control* limiting their focus on work, however dedicated in attitude they might be towards the work.

For example, worries about personal security would affect the performance of even the most dedicated fieldworker. If people have a strong sense of belonging in the team (i.e. social identity), then that security will positively influence, but if they have loyalty to their community or family, any demands from those areas will draw greater priority. These latter paradoxes are not necessarily a problem and can be used by leaders to align people's commitment to their work with their outside interests and norms. For example, the Pygmy Hog Conservation Programme in Assam (Chapter 4) aligns expectations for flexible time off work with family farming commitments (G. Narayan, personal communication) and enables a highly committed workforce ready to contribute extra hours if the programme has unexpected needs.

## **Empowerment**

In the 1970s and 1980s, management literature focused heavily on participatory management as a way for developing effective organisations (Grint 2010). One of the buzzwords that emerged in the 1990s and 2000s was 'empowerment', which involved leaders giving away power to people doing the work, so that people took responsibility and were able to contribute at a higher level. A weakness in understanding within the empowerment movement was that 'power' was seen as a commodity which could be given away, transferred in a tangible manner so people could pick it up and get on with the work. In reality, it is not power that is passed on but more tangible things like clearly understandable levels of authority described in job roles, clear processes of decision-making, availability of resources, structural support when needed, and so on (Black 2019). Some of these things were harder for many empowering managers to give up, so empowerment became a derided buzzword among many employees. Many managers also misunderstand the impact of *disempowering behaviour* displayed by leaders themselves, such as questioning people's decisions, withholding information, restricting 'power' to trivial matters, stifling peer support, and mismatching responsibility (for the work) with authority (to act), all of which exposes staff to ridicule, question, and failure. The phrase 'setting people up to fail' is a descriptor of this type of ineffective leadership.

## **Engagement**

An emerging contemporary theme has evolved over the past 20 years focused on 'engagement', where people not only are empowered with authority but become really invested in the purpose

and work of the programme. Engagement can relate to staff, volunteers, funders, even customers (if you have them). Clearly, engagement is a good thing, but from a psychological point of view (in terms of motivation, social identity, and work) engagement makes sense only if it is designed into the role that the person has and the work that they do. As Deming (1994) and Seddon (2003) would suggest, engagement has to be built into roles and work design. Engagement cannot be a ‘bolt on’.

Engagement is a good thing to do, unless it is strapped onto ways of working and people being led in constrained roles where mastery, autonomy, and purpose are absent or are continually eroded. So, whilst engagement is a ‘good thing’, it is only so when it is true engagement. The same is true for other areas of management, such as people’s well-being: taking time to consider and manage well-being is good, but if these sorts of activities are only carried out in a working environment where normal day-to-day work life actually sees people’s wellness being ignored, undermined, or threatened, then the effort of ‘doing well-being’ is pointless, futile, and frankly demeaning to the people it is intending to help. A yoga class will not heal a badly managed team that does not feel it can make things at work run more smoothly. People notice this kind of nonsense.

If a leader wants to implement a buzzword, do so with care. If leaders fall into the trap of ‘doing things to people’, they will lose the interest of the staff (Seddon 2003). To gain follower-ship as a leader you need to have *integrity*. Integrity means:

- You do things with people rather than doing them ‘to’ people.
- Your approach is consistent with your value for people and your priority for wildlife.
- The resources you provide are consistent with things that you say are important at work.

To lead with integrity, you need to engage with people and involve them across the following areas of work life:

**Decision-making:** you might personally make the final decision, but you can still involve others. Consider the budget, or the hiring of a new senior staff member, or the values of the organisation. All may leave you as the final arbiter but take people with you.

**Planning:** you might need to finalise a plan to present to your board or to funders, but you can involve staff in its preparation, setting milestones and priorities. Staff may not agree with your views, but a robust, constructive discussion will make them feel involved.

**Problem-solving:** more heads are better than one. You might have a say on what is possible (vs. time or budget), but gaining input and creative thinking from the whole team is vital.

**Method development:** should be a fundamental responsibility in people’s job descriptions, involving consultation, discussion, and documentation by relevant team members.

**Team culture:** the team have to own their culture, so facilitate discussions which challenge aspects that do not work or are contrary to what you know about healthy organisations, or positive community relationships, or local community culture, or effective conservation.

Engagement needs to be *integrated* into the way that you do things. Consider which decisions managers alone are making, or the initiatives that managers are designing, or the improvements that managers are looking to implement. An engaged workforce would be one *that itself* is making the decisions, designing the initiatives, improving the work. I always worry about organisations that choose to have ‘Engagement Events’ (especially with their own staff) since this suggests that engagement is not a normal day-to-day part of their approach.

Clearly, set-piece events and gatherings of people are useful, especially when they provide opportunities to get staff or local volunteers together in ways which are otherwise logistically



difficult. It would be better, however, if people had a normal day-to-day expectation that they can be involved as a matter of course (achieved through conversations, actions, and their experiences of the ‘culture’ of your programme). Your leadership approach will establish the norms that staff, communities, or funders have for being involved (or not) ahead of such an event. As a rule of thumb, avoid ‘engagement events’ that seek to ask people’s opinions to help them ‘feel involved’; these workshops are not close enough to day-to-day work realities, which should be discussed in normal work situations. Consider engagement events as a volume knob on a radio (amplifying the message which is already heard) and not an on/off switch (the first time they hear about anything).

As a word of warning: I have heard first-hand (outside the conservation sector, I might add) of the use of ‘fake consultation’ events (see Chapter 2). These involved managers wanting to be seen to collect views of staff on key issues (because it is ‘a good thing to do’) but essentially not being at all interested in staff ideas. A repeat exercise a year or so later had a series of events attended by one, two, or zero people (in venues with event capacity for 50 people to attend each time). It was, frankly, a disgracefully embarrassing waste of time, resources, effort, and reputation. Leaders who conduct themselves this way do not last for long, as was the case for the individuals leading in these instances. You get what you put in.

### **Followerhip is the essence of leadership**

The vast literature on leadership covers an array of competencies, capabilities, behavioural attributes, and methods which inform effective leadership. When it is all boiled down, the true test of leadership is whether people follow (Seddon 2003). However, even here, the truth lies deeper. While followers are an indicator of leadership (most certainly) they are not necessarily indicative of ‘good’ leadership. There are many instances in history when followers have rallied behind poor or even despotic leaders. This is what makes the topic of leadership so thorny in some instances.

In political circles, for example, followership tends to orbit around the leader’s personality, views, preferences, and ‘attractiveness’ to followers. Conservation will not thrive on this premise since conservation vision and sustainable success will need to outlive the career of any given leader (20, 50, 100 years; Jones & Copsey 2018), so people instead need to be committed within themselves to restoring species and ecosystems of concern.

It is worth reiterating points from Chapter 2 where a number of issues were discussed relating to problems of ego in leadership. This book generally focuses on purposeful leadership, where the leader is focused on an essentially noble purpose (in our sector, the conservation of species, ecosystems, and landscapes). The important point is that *the leader’s purpose is separated from their ego*. An effective leader will galvanise people around the purpose of the programme, the shared vision for what they are seeking to achieve, and the values by which the team will conduct its work and go about its business (Kouzes & Posner 2007). While there is an element of convincing people on the way forward and the work to be done, the most important job of a leader is to ‘line up the arrows’ in the same direction, getting roles designed so that people can deliver in their job purpose, within the team and for the overall project (Coppin & Barratt 2002).

### **Team identity and social capital**

Social identity is an important element in the psychology of work. People tend to identify with various groups: co-workers (‘or the team’), peers, fellow professionals, alumni (from the same college), fellow nationals, gender groups, sports teams, religious groups, and so on. We know

that effective teamwork will enable improved collaboration, performance, problem-solving, and planning and these will be explored in more detail in Chapter 10. However, team members need to have a sense of belonging and identity with the group to be committed enough to bring their best contribution. The investment of social capital (mutual trust, mutual interest, care, and togetherness) has an influence on the level of knowledge sharing and innovation in teams (Hu & Randel 2014) and particularly in self-managing teams (Gupta et al. 2011) including facilitation of higher performance.

Trust is one aspect of social capital (Costa & Peiró 2009) and linked to this is goodwill. These seem slightly old-fashioned concepts in some respects but are important since they foster greater knowledge-sharing inside and outside the team which accelerates improvement; vital in a world of change as experienced in conservation. Experience also reminds us; the most collaborative teams, and the teams most willing to collaborate with others (such as external partners, invited experts, and volunteers) are the programmes which are most effective in achieving good results.

Team identity is an interesting area since it has been shown to influence work commitment in team members and reduce shirking of work and free riding (i.e. letting other people do the work) and so enables higher performance (Eckel & Grossman 2005).

### **Team development and team dynamics**

There are many reasons why conservation work involves teams of people; in fact, teams are so much the norm (as in most fields of human activity) that we assume that teams are a normal way of organising ourselves. In reality, the reasons for organising people into groups are not always sensibly established. For example, a group of people may be brought together as a ‘team’ simply because they happen to individually report to the same supervisor or are part of the same budget; this arrangement is simply a group of individual workers. Even less helpful is where people with unrelated work are put together into a team to justify promoting a person as their manager (this rarely works for the promoted person or the team, since it is confusing and helps no one in their work). Sometimes, people who are in the same physical space are called a team, but their work may bear no relation to each other. Sometimes, people who are actually competing with each other (e.g. for fundraising or to make sales) are grouped together supposedly as a team, but again this is a false arrangement.

Nevertheless, well-organised teams offer significant advantages at work, and efforts taken by leaders to design and improve the organisation of a team will be rewarded in productivity, morale, and results. There are many good reasons for engaging people to collaborate as a cohesive team: better understanding of decisions, more support for plans, higher levels of participation and contribution to problem-solving, and more ownership of shared decisions (Scholtes 1998).

An effective team is a group of people with a shared purpose. The elements of what makes a team successful have been best identified by Beckhard’s (1972) Purpose-Goals-Roles-Processes-Behaviour model which is most usefully described in detail in the conservation context by Black and Copsey (2018). The main elements that are needed to ensure a team is effective are the following:

**Purpose:** is of course the most important focus. A group of people become a team when they have a shared purpose. Purpose must be explicit, clear, understood, and agreed ‘We are here to . . .’. Each team member should be able to explain the team’s purpose in their own words. As a leader you want to prevent people working at cross purposes (in different directions with different priorities). People should consider anything they do in light of the team purpose by asking the simple question: “How will this help us to achieve our purpose?” (Black 2015).

**Goals:** are short-term expectations of what needs to be achieved or carried out. Goals may relate to a specific individual in the team or to the team as a whole (see Chapter 11). Whatever the case, all the goals within the team should be aligned and should deliver the team's purpose. Team goals are usually best as they help cohesion of effort, but clearly an individual with a specific technical specialism may need individual goals as well as team goals. Goals should change and be updated, evolving as the team adapts and improves. *Goals should help people monitor their own performance.*

**Roles:** each team member's role needs to be explicitly defined in terms of title, purpose, *their 'reports'* (i.e. subordinates), *who they report to* (i.e. their own supervisor), *hours of work*, *work location*, areas of responsibility covering (1) performance/results responsibilities, (2) process responsibilities (including improvement) (3) people responsibilities (including development of those people), and (4) shared-leadership responsibilities (supporting the leadership of their manager). This type of role description avoids long lists of tasks (which always become outdated). The important areas of attention are the gaps that occur between people's jobs (things that will not get done by anyone) and the shared areas of work (which cause friction or confusion) which need to be properly designed (D. Middleton, personal communication).

**Processes:** are the activities and flow (i.e. sequence of activities) in the work of the team. These include task processes, team processes (such as decision making), and some individual processes (like training). If these things are unclear, the work is likely to break down or be ineffective (Scholtes 1998). Task, team, and individual processes are discussed in Chapter 10.

**Behaviours:** are the ways of behaving and building working relationships within the team. It is often useful to make these explicit as a set of team values or working principles which are discussed, agreed, and written down (Coppin & Barratt 2002). This makes things much easier when discussing whether someone has disregarded the agreed way of working. Their error can be highlighted by reminding them of the written set of values, without pointing the finger at them personally, nor getting into direct conflict. Instead, a simple statement of: "Hey. Hold on, remember we all agreed that . . ." should politely raise the problem and give them a choice to comply with the shared way of behaving in the team.

Beckhard's (1972) research tells us that when we identify a problem in a team (which often arises as conflict, irritations, intolerance, breakdown of relationships, or moaning), what initially appears as a 'behavioural problem' is usually caused by shortfalls in one of the other four 'hard', tangible areas of team organisation (purpose, goals, roles, processes). A fix in these other areas will usually enable restoration of harmony within the team and the restoration of working relationships. This is a useful example of how systemic changes (i.e. specific changes to influencing factors in a dynamic system) enable wider improvement.

### Managing team dynamics over time

Once a leader designs a team (or many teams), it is obvious that over time those teams will change, evolve, alter, and adapt to new circumstances. The work might change, team members might mature and develop new skills, people may leave the team or join it, the leader may change, the team might relocate or change its area of operation, new responsibilities might arise, or new resources and methods might become available. An effective project leader will not only expect the team to change, mature and develop over time but also seek to *proactively develop the team* so that it can move towards higher levels of performance and, ideally, achieve this quickly rather than evolving by chance.

Research has identified that all teams pass through a number of stages of maturity, and these stages might arise in an unmanaged way or through deliberate design and management. Without conscious effort, a team's development might be erratic or dysfunctional or the team may become stale and ineffective. The best summary of these changes is presented by Tuckman (1965), who describes the following five stages of team development. The most important aspect of this model is that *a leader can actively manage their team through the stages* or neglect that effort and count the cost.

**Forming** (meeting, getting to know colleagues, establishing team purpose, leader expectations) this is a fairly obvious and normal phase for a team. At this stage the leader needs to be steering and directing the team, informing them of the leader's expectations, people's differing roles, the goals of the team, processes, and procedures.

**Storming** (includes contending for power, setting boundaries, questioning, and establishing trust). This is often viewed as a negative stage, which is certainly true for teams that end up stuck in this mode of operating (maintained by team members joining and leaving due to continuing dissatisfaction). However, *the best leaders utilise the storming stage* and actively take the team through it (after 'forming') by encouraging creative questioning, discussing the ineffective 'stuff that we do', seeking opportunity to contribute more, or question decisions. A humble but assertive leader can steer the team into constructive ways of using the energy of dissatisfaction (Copping & Barratt 2002) and instead enable team members to establish helpful new norms of team behaviour.

**Norming** (establishing stable behavioural expectations, team processes, and work procedures and roles) is the short-term aim for the leader. This is the mode where people know what they are doing and how to go about it. However, if a team gets stuck in the norming mode, it may not achieve high performance nor be best placed to adapt to future changes in work challenges (e.g. new threats to biodiversity, pressure on budgets, new technology, or method changes). Also, the leader themselves will likely be too absorbed in supervising the mechanics of the team and the work that they are doing, so will spend a lot of time on team leadership rather than other important aspects of leadership (e.g. developing partnerships, devising strategies, increasing project influence, engaging funders).

**Performing** (delegation of work to team, team decision-making, problem-solving and improvement, monitoring of their own work and results) is the stage when the team is managing its own performance and improvement. The team demonstrates high performance and self-management, including leading recruitment and training of new team members, developing and testing new methods, proposing improvements, and being ambassadors of the programme. This frees up the leader and increases the capacity of the overall programme.

**Adjourning** (for project teams that shut down and disperse at the end of a project) occurs only for teams in time-limited projects and was identified as important by Tuckman and Jensen (1977). Clearly, in conservation, where funding cycles often limit the lifespan of a team, this is a relevant stage. The important processes include allowing team members to mourn the end of the project and the dispersal of team members at the close of the project. This is helped by (1) celebrating successes, (2) processes where each member can share feedback to colleagues, (3) discussion where the team shares learning about what went right or wrong in the project which they can take into other projects or their future career. These processes allow team members to feel valued and to take a positive memory of the team leader – a reputation which will leave the team leader themselves in a stronger position to recruit new staff in future.

A leader can diagnose the stage at which their team currently resides, through observed behaviours, activities, and experiences of team members. The speed at which a team moves from ‘forming’ to ‘performing’ can be accelerated by careful use of staff selection, induction, staff development, information sharing, and team process (decision-making, problem-solving, project management; see Chapter 10) and feedback (see later in this chapter). Where a team is struggling, you can usually observe that they are stalled at one stage. This can continue for weeks, months, or even years if there is no intervention, which is costly, wasteful, and prevents high performance. Some teams cycle between forming and storming with team members leaving and the team essentially reforming to repeatedly continue storming and so on. Intervention is clearly necessary in these situations. The speed at which the team progresses through the stages is a measure of the effectiveness of the leader as it is of the team itself.

However, there is an important learning point even for mature, successful, high performing teams. If at any stage, for any reason a team member leaves and a new team member joins the team, the overall dynamics of a team revert back to the ‘forming’ stage. This is something often forgotten in so-called reorganisation activities undertaken by management. *The reversion to the forming stage is true even for the highest performing teams.* Fortunately, for high-performing teams, the team members will have a very clear view of team purpose, goals, values, and processes, they will also have clear approaches for induction of new team members, and they will proactively introduce any new team member and take them and the whole team quickly through the forming–storming–norming–performing stages in a few days or weeks by engaging the new starter in questioning, observation, and training. For less mature teams, the leader will need to be proactive in implementing all these actions.

### **Humility and a sense of reality**

The pitfalls of leadership ego are discussed in depth in Chapter 2. A reliance on ego is a reliance on an inner view and the relative importance of external realities on that inner self. This perspective is a form of self-delusion since external realities are rarely impacted by our inner selves, unless we have a colossal amount of power (such as physical force or finance). If a group of people follow a leader’s ego, this will also be corrupting (especially in conservation) since wider, global needs are unlikely to be met by meeting the perceived needs of one person.

**An ego-driven leader lacks a sense of reality**, however intelligent, worldly wise, or well-informed that person might be. By observation, the well-known egotistic leaders only ever performed at their best when they had a clear sense of purpose which was separate to their self-identity, and this enabled them to lead achievements even if they in themselves had particular flaws, prejudices, or misperceptions. Winston Churchill and John F. Kennedy are historical examples from politics, but similar individuals can be identified in sports, arts, media, entertainment, business, military, and many other spheres of society.

A sense of reality is a vital competence in a leader; the ability to understand the world external to themselves, as experienced by other people, as observed in constraints, opportunities, capability. Taking risks with a sense of reality is one thing, but taking risks with no sense of reality is an act of irresponsibility. This is what undermined the contribution of commanders in the First World War since they did not understand the implications of sending soldiers into battle on the Western front (MacDonald 1998).

**Getting an ‘outside in’ view** of reality is a mark of good leadership. The best leaders understand how their organisation fits the challenges of the wider world (Senge 1990). In conservation this means meeting the demands of threats to biodiversity, the needs of human communities,

the constraints of funding, the pressure of time. A consistent *sense of reality* will be informed by two things:

- (1) Intellectual capability to perceive the world
- (2) Humility to want to seek to understand aspects of the world which we do not perceive

Humility is a wholly misunderstood capability. It is a personal behaviour which can be learned (although some people have it as a natural part of their character). It is linked to ‘open mindedness’ but importantly is also linked to ‘empathy’, ‘patience’, and perhaps less popularly, ‘compassion’. Too often managers strive to be ‘focused’ and ‘purposeful’, but this only results in short-term gains and milestones being achieved but not *sustainable success*. Inability to sustain success is caused by a lack of humility and a poor sense of reality, both of which ignore the wider world, its constraints, and the aspirations of others which may conflict with our own. If this is true, we have a key question:

How do I practice ‘humility’ and gain ‘a stronger sense of reality’?

**Humility starts with listening**, as Stephen Covey says in *Seven Habits of Highly Effective People*, ‘seek to understand’ (Covey 1989). Before trying to get others to understand you, *listen to them*. Active listening requires you to switch off your own ‘internal dialogue’ (which is usually rehearsing the next thing that you want to say) and replace it with full attention on other people.

The behaviours that should be avoided include selective listening, tuning out (thinking of something else), thinking of your own response, judging, giving advice, avoiding their concerns, interrupting (J. Copsey; J. Barratt; N. Webb, personal communications).

Instead, a leader should *let the person speak so that you can understand*.

Your attention will be enhanced for your benefit (and noticed by others) through the following:

- **Be interested** (focus on what they are saying, make it the only focus of your attention)
- **Be attentive** (use of eye contact, sitting forward, nodding, and verbal cues: ‘uh-hu’, ‘mmm’)
- **Be patient** (do not spring into responses, let people decide what to say, clarify, or rephrase)
- **Reflect** what they are saying (this is self-processing, allowing you to explain what you heard)
- **Draw them out** when needed (if they are unclear or holding back, encourage them to speak)
- **Be neutral** (do not judge whether they are right or wrong, seek to understand their position)

You do not have to agree with everything someone says, or every proposal that is put to you, but you need to understand what these things are. Remember if people do not know what they are talking about, it might be because you have not trained or informed them properly – so it is your responsibility to fix it! If people are complaining about something that you thought was good, is it because your assumptions about what it was offering are wrong? Could things be improved?

There is a saying: ‘behind every moan is an opportunity for improvement’ (D. Middleton, personal communication).

A number of important, yet counter-intuitive capabilities of an effective conservation leader include to ‘listen to concerns’ of staff, enable staff to challenge, share and learn from mistakes without fear, having meetings with an emphasis on clarifying, testing, and listening, encourage creative friction and dissent, and ‘a dialogue of constructive criticism’ (Black et al. 2011, 2013). These principles oppose the traditional idea of a leader being ‘in control’ but in themselves are actually a reflection of a leader who is able to demonstrate very high levels of confidence and influence (D. Middleton, personal communication).

## Behaviours of others and responses to feedback

Clarity of expectations in relationships and the development of a mutual understanding of how we affect other people is fundamental to team success. Even if we encounter areas of difficulty, if these things are known by all involved, they can be discussed and become manageable.

**Johari window:** a neat way of illustrating this dynamic between yourself and others is the Johari window (Luft & Ingham 1961). This is a quadrant model comparing knowledge of yourself ('Known to self' and 'Unknown to self') and Knowledge held by others ('Known to others' and 'Not known to others'). The four quadrants are described as follows:

**Quadrant 1** (Known to Self and Known to Others) is the arena or area of free activity.

**Quadrant 2** (Not known to self but known to others) is the blind area, essentially your blind spot to your own behaviour. If you always start a presentation by tucking in your shirt, and everyone knows it, but you are not aware of the habit, that behaviour is in your blind spot.

**Quadrant 3** (Known to self, but not known by others) is the avoided or hidden area, sometimes known as your façade. These are things we choose not to reveal to others (e.g. a hidden agenda or something which we are sensitive about).

**Quadrant 4** (Not known to self, not known to others) is the unknown. For example, no one knows what your reaction would be if a bus crashed into the office. Similarly, no one would know if you have an allergy to a never-before-encountered local food. We can also have unknown motives or behaviours which only later become apparent and known to anyone.

The effective working space in any relationship is clearly the Arena, where people have mutual knowledge. The size of the Arena can be increased (in other words the information that is shared and generally known in the working relationship) by oneself choosing to make a *self-disclosure* or by actively seeking others to give you *feedback*. These are important assertive choices (see also: Smith 1975) which we will explore further in Chapter 9.

**Self disclosure** involves simple sharing of information about oneself. It could be a simple expectation like 'I prefer people to arrive a few minutes before the meeting is due to start' or 'always give me 1 day to read a draft report', or a work preference such as 'I hate giving public speeches'. It may be more personal such as 'I am always tired on arrival after the Monday morning commute', or 'my child was ill so I barely slept last night', or even relatively trivial matters like 'I enjoy watching football on TV'. If someone then chooses to give you a report at the end of the day when your football team is playing in a major game, and the person expects feedback in the morning, they should not expect to be popular!

**Feedback** is the proactive process where either of the parties (or both you and the others) seeks to share information (D. Williams, personal communication). In an ideal world the person receiving the feedback should ask for the feedback first since this shows that they are receptive and ready to listen and learn. If this is not the case, the observer (the person giving the feedback) can prompt the recipient with something like:

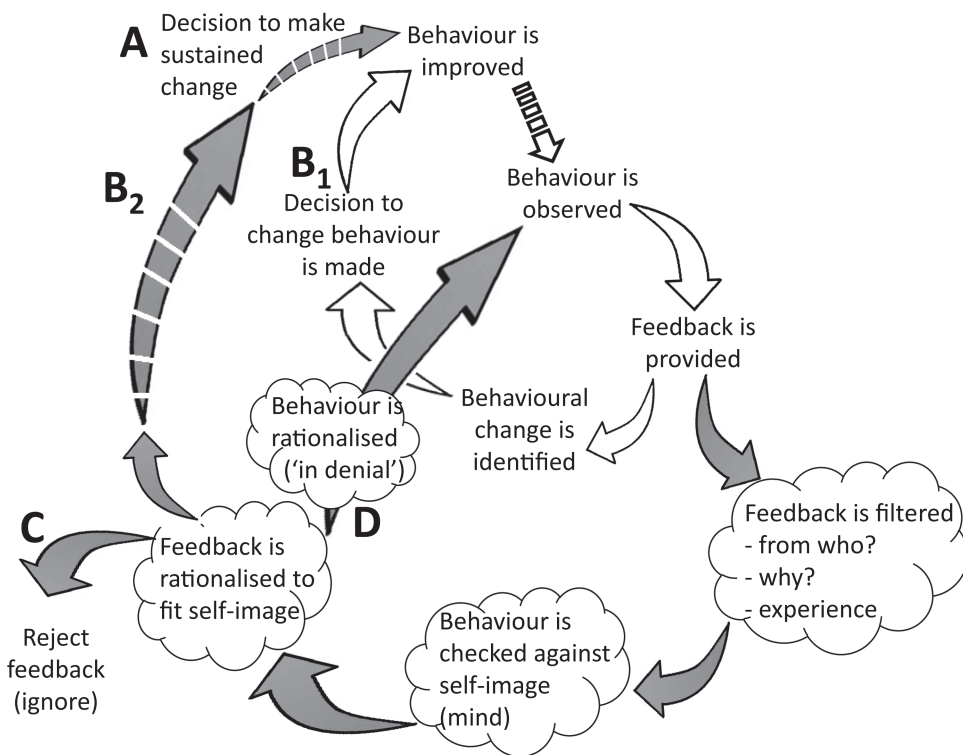
Would you like me to offer you some feedback on . . . ?

This allows the recipient to prepare themselves to learn. Some basic rules for offering feedback are:

- **Timely**, sharing it near to the incident, but not too near if the experience was upsetting as the person may not be ready to hear comments. Too late, and it does not appear relevant anymore.

- **Focus on behaviour** (work) not the person. Not “You are too . . .” but rather “When you did this it . . .”.
- **Be specific** and describe exactly what the issue is, what you observe, and its impact.
- **Explain the outcome** of the behaviour and its impact on people, results, waste, time, self-image.
- **Give them a choice** to accept your feedback and decide whether they wish to act on it.

Remember that people will not receive and process feedback in a simple cause-effect reaction (Jacobs 2009). They are likely to process it in relation to their self-identity and their perception of you (see Figure 7.2). This means that in most instances people may reject your feedback. A persistent, assertive, respectful approach is very important when addressing difficult issues (see Chapter 9).



*Figure 7.2* A representation of how people process feedback from others. The white arrows indicate the classic ‘assumed’ process in the mind of people providing feedback, but the dark arrows indicate the more likely mental responses and processes of the person receiving the feedback. Note that outcomes B1 and B2 may not be permanent. Option A is the desired sustained behavioural change and may require repeated feedback to achieve this decision. Of all outcomes, option C and option D are the most likely responses of people to feedback in many situations (discussed by Jacobs 2009).



## Relationship between thought processes, behaviours, and outcomes

Of course, leadership psychology involves far more than person-to-person interactions. A leader's role in influencing behavioural change in people outside the organisation is an extremely important skill set in conservation. Funders, decision-makers, implementers, and sources of threat are usually found external to our own organisation. As a conservation practitioner you need to be able to design interventions which will influence those external groups to move towards desirable behaviours. It is beyond the scope of this chapter to explore these psychological models (and for design of interventions refer to Chapter 10), but some awareness is important; so a brief summary of the issues as they relate to what has already been discussed in this chapter is worthwhile.

As previously discussed in this chapter, motivations and subsequent behaviours are influenced by a myriad of internal and external factors (Buunk & Van Vugt 2008; Jacobs 2009; Peters 2012). We can put a structure on these aspects to understand the relative interactions and flow between the psychological processes and the elements that influence people's thinking and subsequent behaviour. Ajzen (1991) tells us that people tend to weigh up decisions on the favourability of outcome, social pressure, and level of control over the action, often on an irrational basis. Whilst people may have an attitude or intention to behave in a particular way, there are many other factors that may dissuade them from actually enacting that behaviour (Heath & Heath 2011).

The 'Theory of Planned Behaviour' is an important basic theory that is helpful to understand the dynamics of psychology and understanding behaviour and behavioural change. Despite being one of the best-known change models in psychology, The Theory of Planned Behaviour (Ajzen 1991) is still rarely discussed in conservation circles (despite practitioners' interests in other spheres of interest in behavioural change and theories of change). This theory illustrates how the various internal and external factors influence or impinge on the process of a person's intent (what they want to do) through to their observed behaviour (what they actually do).

A brief example from the world of conservation is given in CASE BOX 7 describing the attitudes and behaviours of local people towards predators (snow leopards, wolves, bears) recorded in a field research study examining predator deterrents (Figure 7.3) used by farmers and villagers in Ladakh in India (for further discussion, see Talbert et al. 2020, and a similar mapping of behaviours relating to wildlife and ecotourism by Vannelli et al. 2019). The case study is an example of a schematic 'Path Model' in Figure 7.4 which illustrates the Theory of Planned Behaviour.

## Navigating the psychology of behavioural influences

The Theory of Planned Behaviour (Ajzen 1991) illustrates the following factors at play (as seen in the example CASE BOX 7):

**Attitudes** carried by a person which are summarised on the left of a 'Path Model' (see Figure 7.4).

Traditionally, we consider that *intentions* drive behaviour in a cause–effect sequence, but this is not the case; there are other antecedents at play (attitudes, norms, and behavioural control) and external controls which intervene and steer people's behaviour.

**Social norms** (external group expectations) and the person's *perceived ability to control their behaviour* are also important. If a person wants to change their behaviour, peer pressure, or cultural rules might still prevent this (this is important where conservation crosses or aligns

with social or cultural taboos, see Jones et al. 2008). Similarly, the person may want to change but believe that they cannot (for psychological reasons).

The final **observed behaviour** may be positively or negatively displayed, in a variety of ways (right hand box, Figure 7.4) and *may contradict* intentions *and* underlying attitudes. However, if the person overcomes social norms and other controls, they may align positive intentions with positive behaviour. Essentially, they balance *intentions*, *costs* (to them, including social cost), and *benefits*.

Understanding these factors allows a leader to address initiatives which might influence the behaviour or reduce the influence of negative controls on that behaviour. Getting this wrong would clearly be counterproductive. If we offer compensation payments for livestock losses to predators it might work well in cultures where honesty is a pillar of society. In other situations, a compensation payment may be taken, but retribitional killings of predators continue for economic or social reasons (e.g. to help other farmers). In other contexts, for example, where criminal gangs have political influence, the control of poverty or extortion may drive people to falsely claim compensation. Yet again, in other cultures the idea of compensation could be offensive and cause local opposition to the project.

### **Case Box 7 Understanding tolerance of predator attacks in Ladakh, India**

In India's Ladakh province, various wild predators commonly kill livestock, with an increasing trend due to farmers using previously wild habitat for livestock grazing. This has caused a reduction in the density of natural prey species, like the blue sheep (*Pseudois nayaur*) and ibex (*Capra sibirica*) due to land degradation. Additionally, societal shifts mean livestock herds are unattended during the day and are at increased risk of predation (children who once were shepherds now go to school). Ladakhi residents have few alternative sources of revenue, so if livestock are killed, their income is severely affected.

Retaliatory killings by farmers in response to attacks are the biggest threat to predator survival. Evaluating people's perceived risk from predators is also important to consider as it sheds light on what communities can accept and steers future mitigation and efforts to promote tolerance. The majority of people report that predator attacks in Zaskar have increased over the last decade, usually attributed to the lack of wild prey. With bears (*Ursus arctos isabellinus*), hibernation periods have been reduced (likely by climate change). Incidences of bears attacking houses are a new phenomenon not previously encountered in villages. As the size of livestock herds in the mountains of Zaskar continues to increase, bears may have been pushed into the villages to search for food.

Previous research shows that if people believe that they can reduce risk from predators themselves, then less involvement is required from authorities; yet currently most Zanskari people do not have access to depredation methods or equipment. People mention that not having a weapon effective in scaring bears left them feeling helpless. In neighbouring Pakistan,



*Figure 7.3* A predator-deterrent light being installed on the roof of Phakmo Ling Monastery, Skyagam in the Himalayan region of Ladakh, India. The availability of deterrents is enthusiastically welcomed by villagers, as these are seen to reduce attacks on livestock and property in these remote village locations.

*Source:* Photo credit: Laura Talbert

farmers fire guns to scare black bears away, but no members of the public in Zaskar are known to possess a firearm. Some people have such desperate concern with predation and their own perceived lack of control under repeated predator attacks, that they over-ride their best intentions (and even religious opposition to killing animals) and choose to kill animals illegally (see Figure 7.4 bottom arrow on the diagram).

Despite efforts to promote local support in particular for the endangered snow leopard (*Panthera uncia*) including ecotourism initiatives to offer income from wild heritage, the real priority for any action in Zaskar is to decrease the perceived threat posed by bears to humans and preventing bear attacks on property and livestock. Results from surveys in Ladakh show that bears cause the vast majority of problems in Zaskar, so putting effort into mitigating their interactions with that species would be the best use of resources, to enable a shift in public support for conservation.

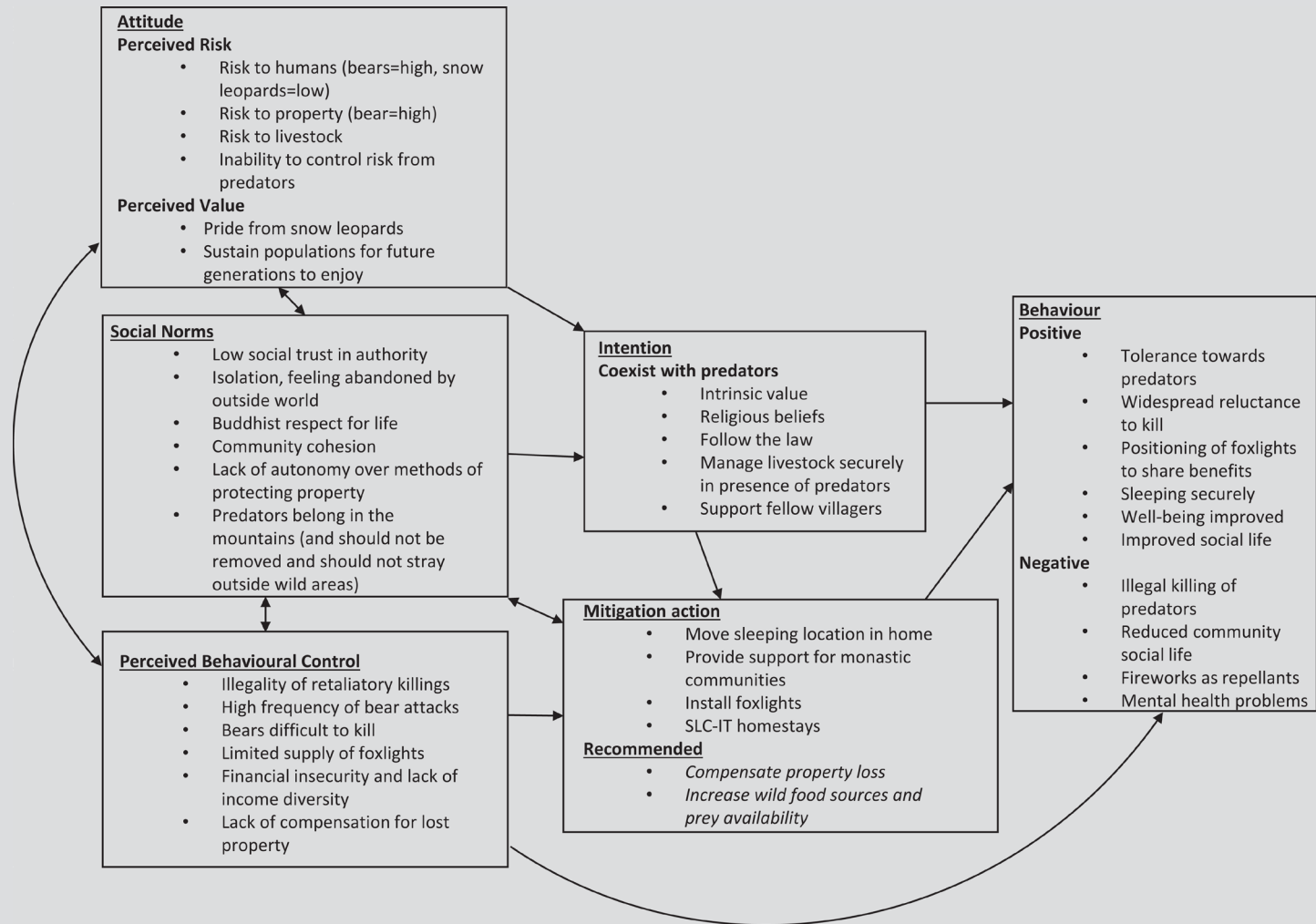


Figure 7.4 Example schematic applying the Theory of Planned Behaviour for attitudes, intentions, and behaviour of local farmers and villagers concerning predation of livestock in Ladakh, India.

Source: derived from Talbert et al. (2020); L. Talbert, personal communication

## **Chapter 7 reflection – the basics of psychology for leaders**

A leader needs a sound understanding of psychology to balance competence with other aspects of understanding systems (including organisational, social, and ecological systems), theories of knowledge, and an understanding of the theory variation in data relating to management.

- Psychology is about understanding people's behaviour.
- A person's behavioural response to situations will be influenced by their beliefs, attitudes, norms, identity, controls, knowledge.
- Dignity is the point where people meet with respect and mutual interest.
- Behavioural influences can be summarised by antecedents–behaviour–consequences.
- You cannot motivate people. You can only influence what enables them to be motivated.
- Motivation involves autonomy, mastery, and purpose which must be designed into work.
- Effective teams are engaged by clearly understood and agreed purpose, goals, roles, process, and behaviours.
- All teams develop through stages of forming, storming, norming, and performing, and if time-bound (e.g. project teams) final adjourning; progress through all can be managed.
- Followers require leaders to act with integrity and humility.
- Humility involves listening: interested, attentive, patient, neutral, reflects back, encourages.
- Self-disclosure and feedback enable you to develop a shared 'Arena' of awareness when relating with your team members on how best to work together.
- The Theory of Planned Behaviour is a useful start point for considering the relationships between factors that influence behavioural change (see Figure 7.4).

## **Exercise 7 – team motivation and how to influence wider behavioural change**

### **(1) Motivation of your team**

- (a) Consider things that you say, do, or design at work which allow people to be motivated.
- (b) Consider the things that you say or do, (or design) at work which demotivate people.
- (c) What could you do to address your demotivating behaviour?
- (d) How could you seek feedback (and from whom) on this behaviour?
- (e) How would you measure success in changing your approach?

### **(2) Behavioural change in biodiversity conservation**

- (a) Identify an area of your work where you need to change the behaviour of local people towards biodiversity (species, ecosystems, habitats, landscapes, natural resources).

- (b) Map out using a large path diagram (see Figure 7.4 as an example) what you know about attitudes.

Social norms

Intention

Perceived behavioural controls

External controls

Observed positive behaviour

Observed negative behaviour

- (c) Where are the gaps in your knowledge about the motivations and expectations and drivers of people's behaviour in relation to the species and ecosystems of concern in your programme?
- (d) What could you do to inform yourself better about those gaps in understanding?
- (e) Where the path becomes clear, consider what types of interventions:
- (i) have potential to positively influence suitable behaviour?
  - (ii) have potential to worsen behaviour?
  - (iii) appear sensible but would have little or no effect and be a waste of resources?

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## 8 Organisational systems theory for conservation leaders

### Personal Perspectives – Introduction

Central to a modern understanding of a leader's role is, either explicitly or implicitly related to leadership theory, an understanding of how the leader and their organisation fits within the wider system of its users, customers, stakeholders, political, legal, and economic systems. In conservation, we can directly add the status in relation to natural systems of habitats, climate, seasons, and so on. Systems thinking has become a popular buzzword in some circles of organisational development to such a degree that it can be a bit of an annoyance. In my view this is because people have such a surface understanding of the theory that what they talk about provides little substantive assistance to people doing the work. This chapter aims to overcome that problem.

As committed conservation professionals we need to see through the terminology and begin to explore what is actually meant by systems theory and whether our understanding of systems can make us better leaders, more able to guide our organisations in their pursuit of conservation outcomes. There are some new terms which we will encounter on this exploration, however, the concepts are very practical and will help us to consider when to make decisions, how to consider potential outcomes (good and bad), and how to design the way we do work so that it will have the greatest positive effect. We need a dose of realism; how do we go about our business when other people such as stakeholders, partners, and funders do not see the world in the same way? Should we try and change how we do things, or simply continue as we always have done so, for better or (more probably) for worse? I consider this as a leadership challenge; that we press on with new insight and consideration of real practical factors to do things in a better way.

This chapter is not intended as a catalogue of conservation approaches nor a deep examination of systems theory, but simply a reminder of paradigms of conservation which a mature leader should be able to challenge, utilise, or develop in their own work. There is an evolving perspective of systems in conservation, particularly as social and economic systems develop, expand, and diversify, causing pressures on biodiversity. There is little excuse for any geographical region not to be reasonably self-sufficient in available, capable conservation practitioners, at least at a regional level within the coming decade. People living in high biodiversity areas should be engaged and encouraged to pursue conservation rather than having to rely on visiting experts from overseas. Knowledge, expertise, and action should be present within the locations that need it.

**‘Systems’ in conservation**

Previous chapters have introduced the idea of ‘systems’ as being relevant when managing conservation programmes, and this reflects a number of calls from the literature (Holling & Meffe 1996; Black et al. 2013; Martin et al. 2012; Game et al. 2014; Travers et al. 2019).

We are familiar, in biodiversity terms, with the importance of ecosystems and the interaction of biotic and abiotic processes (Bertalanffy 1969; Wallace 1994). We are familiar with population dynamics and systems relating to breeding biology of particular species, carbon, water, and nutrient cycles, predator–prey systems, disease systems, and so on. The phenomena of wider food webs, trophic cascades, ecosystem functions carried out by particular species (such as land transformation or grazing) are also familiar. Ecosystem services are also now well-understood concepts as a basis for understanding the value of biodiversity.

In many areas of conservation work we encounter social systems, economic systems (and ‘markets’), and political systems (Holling 2001). The interaction of these systems with the ecosystems of concern create in themselves systems (Ban et al. 2013). In short, systems are inherent within the context of conservation work.

**Points of intervention – making conservation happen**

Chapter 6 explored natural systems and how conservation work may or may not have an impact, how that impact can be understood and improved. This can be explored at a more operational level in terms of what this means for work processes (task processes), teamwork (team processes), and individuals’ processes (see Chapter 10). A leader needs to understand how their organisation interacts with the natural systems (species, ecosystems, and landscapes) for which it has responsibility (whether it is a project, team, initiative, embedded NGO, government department, forest service, wildlife service, etc.). Several different types of intervention are common in conservation as described here.

**Species intervention** is the classic form of conservation, where the plight of a focal species is the focus of the work, and the point of intervention is work with the individuals of the species and the overall population (or part of the population in a particular locality) of that species. The outcomes are measurable and supported by a body of knowledge in conservation science. A classic example would be work with the po’ouli, the rare honeycreeper endemic to Maui in Hawaii.

**Intrinsic threat intervention** involves work focused on addressing an identified threat or a cause of decline intrinsic to the population, species, or ecosystem of concern. A straightforward example would be a disease outbreak, whether inherent to the system or novel. The solution largely lies in the species of concern, for example immunity of certain individuals which can be nurtured, or vaccination, or another intervention such as supplementary feeding which could enable the species of concern to overcome the threat.

**Extrinsic threat intervention** aims to address a direct threat to a species or ecosystem such as explosion of predator numbers affecting a rare species of concern (which is potential prey), or invasive species acting as a predator or competitor (for breeding space, shelter, or food), or human offtake (poaching, felling, extraction, livestock grazing). This type of intervention may be as simple as erecting a fence, or it could be a sustained strategic initiative such as invasive species eradication, or more complex such as working with people to access alternative livelihoods, achieve more effective land use or alternative food sources.

**Habitat intervention** is a common level of intervention, where modifications or improvement to habitat are addressed with the expectation that species will benefit and their populations will recover. The intervention may be simple (such as providing artificial breeding sites such

as nest boxes), or removal of human litter and rubbish, or more complex, such as removal of invasive plants, replanting of native trees, shrubs, or grasses, or clearing waterways.

**Ecosystem intervention** is a more systemic intervention, but may be simple in design, such as the installation of an artificial reef (e.g. a sunken ship, rocks, or cages) upon which marine creatures can colonise, creating natural systems supporting other marine life.

**Landscape intervention** tends to be on larger scales but may include small nature reserves of a few hundred square metres or relatively small networks of space across agricultural areas or urban locations (such as networks of ponds, hedgerows, or urban parks). At a larger level the landscape may involve many ecosystems across many national borders. The intention is to devise manageable habitat protection and recovery. This could include any of the other types of intervention listed here and may relate to one or many species of concern. Landscape interventions have been successful in islands (such as Round Island of Mauritius) but are a greater challenge in continental and multinational settings and demand many other intervention types to be effective.

**Community intervention** is another discrete intervention type where a human community is seen to have an important influence on a species, habitat, ecosystem, or landscape. The people may have a potential positive effect (such as protecting the habitat, patrolling to deter poaching), or a negative effect (excessive use of natural resources, hunting, land conversion to agriculture). Some interventions are purely educational or focused on ‘raising awareness’, but these may be less impactful on changing people’s perspectives than might be intended (see Chapter 7).

**Market intervention** involves attempts to change the desirability or availability or offer of alternatives to reduce demand, offtake, or trade in natural resources (including plants and animals), or use of wild places (for agriculture, tourism etc.). Highly specialised knowledge is required to identify supply chains and market dynamics and drivers of demand, price, supply, and externalities which may influence buying behaviour or supplier behaviour. Simple systems of fines, policing, punishment, compensation, and incentives are rarely effective in the long term or must at the very least be part of a suite of initiatives to be effective.

**Legislative intervention** like market interventions can look good on paper but may have little effect in practice. However, legislation does have the advantage of documenting governmental commitments to conservation. This commitment can be used as leverage to engage politicians and law enforcement agencies into action. Organisations like CITES and TRAFFIC have achieved successes in reducing threats to specific species. Similarly, gazetted national parks have had some successes in reducing land conversion for important habitats, although the impact is variable across the globe. Legislation is likely to be part of a combination of activities and is ultimately only as good as the enforcement that follows it.

**Capacity (people) intervention** is an increasingly common approach. The ZSL EDGE programme is a particularly effective and carefully focused programme that delivers this in locations where capable people have not had the opportunity for development nor resources to see through important conservation work. Local capacity development is possible for most regions other than Antarctica and, arguably, remote wilderness areas in regions of Australia, South America, and within the Arctic circle. These latter regions may need involvement of ‘incomers’ for the work to get done.

**Process-level interventions** are rare but offer significant opportunity (see Chapter 6). Important work concerns *identifying and defining key processes* which are needed to deliver the purpose of the organisation (or project or programme). Processes involve three key elements: purpose–activity–flow. Important improvement can be achieved by improvement in the design of processes so that activities and flow are in proper sequence, are measured (for outcomes), and are purposed correctly to have the correct people, methods, resources,

and controls. In the past, very well-resourced programmes such as the black-footed ferret and California Condor programmes struggled to have an impact due to poorly identified and poorly defined processes.

**Organisational intervention** is one of the less common approaches but can deliver significant effects since organisations are the usual vehicle for implementing conservation work. We will examine how to identify and improve at the organisational level in Chapter 11. Organisational interventions can address practical issues of budgets, funding shortfalls, infrastructure, team capacity (skills, people, capability), organisational culture, learning, processes and measurement, relationships with external partners, and so on. These aspects are commonly missed in general evaluations of conservation programmes but are repeatedly mentioned as causes of failure. A leader needs to have organisational improvement skills as part of their skill set.

### **Organisations, functions, and conservation**

Traditional management theory considers human organisations (whether a business enterprise, a bureaucracy, or a social organisation) as a ‘machine’ comprising many components, most particularly human beings. At the extreme of so-called scientific management, the machine was broken down into jobs and task carried out, with the human dynamic reduced to an operator carrying out work at the task level much the same as a machine (Grint 2010). Fordism (i.e. production line and flow of work to meet a high demand, in Ford’s case for cars) was reduced to cost management (promoted at the time by the Sloane school of management) which broke work into activities rather than considering flow (MacDonald 1998; Jacobs 2009). The logic of breaking things down into constituent parts seemed quite plausible and is in fact so attractive that nearly every manager educated from supervisor upwards considers it the logical way to organise human activity. Unfortunately, most work does not offer the predictability that Ford Motor Company car production offered (for years Ford could famously produce their cars ‘only in black’). Most other human endeavours require work to be highly variable at the point of demand (where the work is needed by the user or customer).

In conservation, work outputs often need to be variable in output. For example, even regimented captive breeding programmes, like the black-footed ferret, produce variable numbers of young animals, of variable fitness, and variable ability to learn to survive in the wild. When we consider activities like compensation schemes for farmers who lose livestock to predators, habitat renewal, offtake due to poaching, pollution mitigation, genetic management, then variability in required output (from conservation work) becomes huge. Different people have different needs. Different species certainly have different needs. In turn, conservation outputs are themselves driven by a huge number of influencing factors (resources, time, method, and so on). Understanding all of those factors is an important element of management.

The combination of factors and the *interactions* between them defines the ‘system’ of work.

Modern management thinking understands organisations as systems since this allows account to be taken of the variability in human motivations, skills, creativity, ability, mood, and achievement. A ‘systems view’ also takes account of the influence of time and timing, sequence (of activities), and flow. A ‘systems view’ also takes account of variability of inputs and variability in capability of interacting stakeholders, suppliers, and partners (Senge 1990; Scholtes 1998).

Improvement of systems requires different types of interventions than improvement of mechanics. Teams are systems, collaborations of multiple organisations are systems. Changing

behaviour of communities of people (e.g. in their use of natural resources) requires intervention of complex systems of behaviour, identity, cultural norms, and rules (Meadows 2008). Further to this, influencing the behaviour of animals to encourage them into new habitats, new breeding behaviour, and new sources of food, requires intervention on systems. Understanding the characteristics of systems and how they operate is an important area of leadership knowledge (Deming 1994). As previously highlighted in Chapter 2, a number of fundamentals about systems need to be understood by leaders including complexity, interconnectedness, and unintended consequences (Armson 2011; Meadows 2008).

### **Complexity in conservation systems**

Systems are *complex*. A system includes many component parts. Those components interact with other components, both directly and indirectly. A direct effect would include how one species predated upon another species, or how boat collisions in a waterway causes mortality in an aquatic animal. An indirect effect would include how a plant species' abundance affects the number of herbivore prey made available to a predator species or a disease of a prey species reduces food availability to a predator species unaffected by the disease itself.

Complexity occurs at many levels and with differing directions of effect. For example, boat speed limits may reduce collision mortality in aquatic species, but may exacerbate irresponsible boat use in unregulated locations. Similarly, speed limits may reduce collision deaths, but safer waterways (due to responsible boating) may increase the number of people using boats on the same waterway, so may increase water traffic, noise, disturbance of water flow, introduction of infrastructure, and general disturbance which could have a negative effect on breeding behaviour of some species.

External factors have a huge influence on these systems, including criminal activity, economic effects, sudden pollution events, and so on. This is the basic observation of the impact of threats, a fundamental concept in conservation science.

Excellent ecosystem studies have revealed the complexity of natural systems and their responses to outside effects. A classic example is the trophic cascades and sequential decline in predator species in Pacific waters of the east coast of the United States. The dynamics of interactions between baleen whales, killer whales, sea lions, sea otters, kelp forest, and sea urchins is one example, hugely affected by historic hunting of baleen whale species (Estes et al. 2004).

Some natural systems are more complex than might appear at first observation. Typical problems of complexity, which have stalled, halted, or derailed conservation efforts in the past, have been encountered where a species under severe threat has retreated into suboptimal marginal habitat. This means that well-meaning and sensibly thought-out conservation efforts for the species in its remaining habitat have failed, since the marginal habitat is so limited that the species will not thrive even if all other factors are improved upon (Black 2020). The Takahe and the po'ouli are both species where this may have occurred, the latter declining to extinction. Appreciating complexity in systems of feeding ecology, breeding behaviour, disease, and predation are vital in understanding basic biological needs of a species. Without this, incorrect assumptions can be made about availability of habitat as opposed to quality or suitability of habitat, range requirements, disease susceptibility, and reproductive success, and as a consequence the design of interventions can be completely flawed.

In the case of the po'ouli, it is possible that the species frequented damp, high-altitude forest in Maui as a strategy to avoid mosquitos (which carried avian malaria), or to access habitat unencumbered by invasive feral pigs. In 30 years of surveys of this particular species (a curiosity in being discovered only in 1973) only one nest was ever observed, and in it all the chicks

died as a consequence of rain ingress into the nest, suggesting it was located in a suboptimal situation (Groombridge et al. 2004). Similar effects were observed for the marginal range of remaining Lord Howe Island Woodhen, in this flightless rail species' attempts also to evade feral pigs.

Of course, where natural systems interact with human systems there are increased levels of complexity. Traditional Chinese medicine drives demand for body parts of certain species to illogical levels, and even where commercial farms can produce similar 'products' (such as captive bred tigers, as one extreme example), the market norms reject such alternatives, so pressure continues to be applied on wild stocks. In recovery of rare parrots, the Spix macaw is more valuable to some owners on account of its rarity, such that suitable breeding specimens are not shared into the established captive breeding programmes intended to save the species, the rare bird being more treasured than the opportunity for it to be part of a less rare future recovered population (Juniper 2004).

These complexities occur before we add the complexities of motivations, controls, and organisational dynamics encountered in government departments, NGOs, or commercial businesses.

### Interconnectedness in conservation systems

The complexity of systems is clearly linked to the *interconnectedness* of components in a system. In simple terms these elements can be described in the diagram in Figure 8.1. The different forms of 'processes', and how they can be managed, will be explored in detail in Chapter 10 but are introduced here, since they are an integral part of the overall organisational system.

For leaders, understanding that our own organisation is a system within the wider conservation system that we are trying to improve is an important perspective to hold. Interconnectedness is familiar in natural systems but less well understood (by conservation scientists at least) in organisational systems. We cannot assume that what we do (or don't do) has no effect on the wider system. By way of illustration consider the impact of our organisation being considered

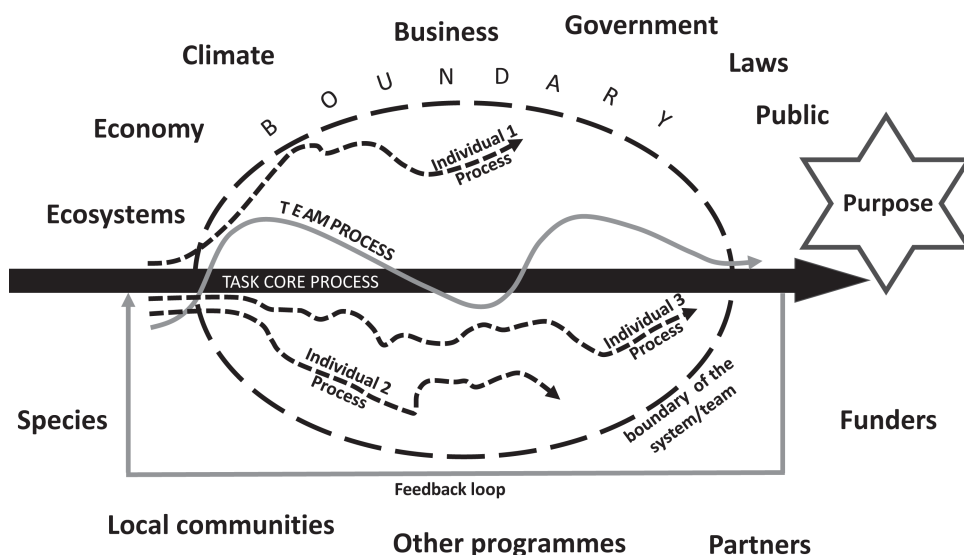


Figure 8.1 Elements of a system – how a conservation organisation fits into the wider world.

as an untrustworthy project partner, or failing to communicate to key stakeholders, or introducing a disease due to bad practice in a captive facility, or causing a public protest, or leaving the region due to financial constraints. The list of effects (and causes) from these actions is endless.

Recognising the interconnectedness of systems means acknowledging that if a change *is* made in one part of the system, then many other parts of the system may be affected. For example, if we are concerned about retaining good staff in our programme, we may decide to develop a pension system which rewards long service and encourages good staff to stay rather than seek better paid jobs elsewhere. This helps us to retain the skills of those people, so not have to spend too much money training other people. This also allows the programme to develop institutional memory and knowledge. All good so far. However, attractive pension benefits may also make people fearful of losing their job, causing them to ‘play it safe’, hide bad news, not risk suggesting innovations, sticking to the plan (even if things are not working), and so on. This is not a hypothetical scenario. It has been observed in programmes which have resulted in the extinction of a focal species (Powell 2008). People ended up putting their needs (imagined or real) before the needs of the species of concern.

Solid management theory, based on tried-and-tested approaches and established on sound theory in systems, psychology, and variation, indicates where we should actively seek to avoid these problems through our personal approach (as a leader) and the organisation design which we implement and maintain (see Chapter 4). This is why inappropriate leadership approaches such as ego-driven behaviour, management by objectives, performance measurement, appraisals, pay-and-reward systems are so harmful, often causing problems and should be avoided (Chapter 2).

An effective leader will anticipate these types of problems and will seek to head things off before they cause damage. This is *not* a *laissez faire* or an ‘easy’ approach. It would be easy to criticise a leader who does not run appraisals for their staff as being ‘not bothered’. Yet if that same person does the more difficult job of keeping in touch with people day to day, understanding the work, getting people involved in decisions, seeking to develop people’s skills, giving and receiving feedback, encouraging structured use of problem-solving, planning, and decision-making, then *there is no need for appraisals*. Staff still get developed, are satisfied and motivated. All that is needed is for the leader to make particular time once in a while to talk with the person about their aspirations and interests (Deming 1982); no judgement, no box ticking, no ratings, no objectives; the person already knows what they have to do day to day, week to week. The whole system works, and each member of staff has a good ‘fit’ within the team. And this is just the ‘individual process’ (Figure 8.1) within the system (i.e. the journey taken by each person at work).

The ‘team process’ also has to fit within the system. Designing team meetings which break up the flow of work is unhelpful and demotivating. Meetings should be purposeful and focus on work and supporting processes (e.g. health and safety, discipline, peer review, problem-solving, training). A regular round-robin update meeting (which is generally a bit of a bore for participants and usually more of a ritual than actually being a helpful tool) should be *unnecessary* if people are integrated in their work and communicating important issues (including feedback or problems) within the work itself. Communication should be built into the system not a ‘bolt on’ addition.

Finally, the ‘task process’ is the work itself, the activities of work and the sequence and flow between those activities. Clearly, these things are connected. However, there is also a dynamic between task, team, and individual processes such that when improvement or change is needed the leaders should have a big picture view of all three to ensure that interventions hit the right spot (see Chapter 11).

This interconnectedness of systems means that making small changes can be very powerful (if they are the changes which you intend). It is a myth that change has to be dramatic and expensive to be worthwhile. Unfortunately, it *is* often a reality that many change projects are dramatic, costly, and wasteful but not for good reasons, and they often generate little benefit. Examples in healthcare, policing, education, and corporations are too numerous to mention (and often involve IT systems). The reason for this waste is that leaders still go about change assuming that organisations are linear and mechanical. They do not take account of the inherent interconnectedness in systems, of flow between tasks (sequence), nor do they carefully consider relationships between activity and human endeavour (and motivation and creativity).

### **Unintended consequences in conservation**

Complexity and interconnectedness mean that simple cause–effect interactions are relatively uncommon. This is true in natural systems (e.g. ecosystems, weather systems) and in organisational, economic, social, and cultural systems, since an outcome (‘effect’) in one part of the system will carry over into other parts. Examples of these effects can be observed as follows:

- In markets, where a rumour can have unexpected outcomes, such as a rush by customers to buy a product for which they have no immediate need, driving up prices and freezing supply chains. In conservation we have this when an endangered species is described in the press and illegal demand (including poaching) increases (Lindenmayer & Scheele 2017).
- In community engagement activities, where a minor oversight can eliminate trust and make local people resistant to the project or unwilling to cooperate with the team (Quintana et al. 2021).
- A minor change in the landscape, such as the erection of a fence to control livestock can raise protests by other land users and even attempts to sabotage the fence itself (Kamdar et al. 2022).
- Provision of an alternative livelihood, such as raising livestock can introduce a disease which affects vulnerable species in wild habitats (Leach et al. 2017).
- Where removal of a predator species results in increased abundance in predation by a secondary predator, bringing worse problems to village communities (Shannon et al. 2017).

These effects are relatively simple, yet still very unpredictable. In some systems, the accumulation of unintended consequences can be severe. In addition to each particular consequence, the *interactions between different consequences can amplify different outcomes*.

Consider a natural system in decline, such as a decline in an elephant population due to poaching for ivory. If anti-poaching measures are successful and mean less mortality in elephants, the elephant population will be sustained and will increase over time (cause–effect) but in time the larger elephant population may put pressure on the landscape from browsing, which may degrade wild habitats, put lesser species under pressure, or result in elephants raiding human crops in search of alternative food, causing conflict with people. In this scenario, a ‘good’ thing (increased elephant numbers) causes unintended consequences, such as conflict with humans and reduction in habitat for other species (Nicholson 1968; Deodatus 2000; Okello et al. 2014). Whilst these problems do occur, since conservation scientists are well versed on complexities in ecosystems these potential difficulties can be observed or anticipated in natural systems and potentially mitigated against.

In other systems, a problem could be masked by this interaction of effects. The lingering survival of the po’ouli, on Maui, was likely due to the bird’s ability to persist in high-altitude forests free from mosquitos carrying avian malaria. Whilst the few remaining birds could survive,



this masked the fact that they were not breeding, possibly due to suboptimal habitat (including high-altitude climate). The remaining birds were old, so also likely to be past breeding age, only properly realised by scientists when some of the last few individuals were captured. When those individuals died, the species went extinct (Martin et al. 2012).

At a management level, the same unintended consequences arise in organisations. This is why many plausible processes for ‘managing people’ should be avoided. Bonuses, targets, appraisals, all set off unintended consequences even with good credible people in the team (e.g. competition between colleagues, hiding results, not sharing information and advice, not giving people enough time and attention, individual focus rather than a team ethic, waste of resources, demotivation). This is not because people are ‘bad’, disloyal or ‘not team players’, but rather it is the way that the organisational system has been set up which drives these unhelpful behaviours. A leader needs a basic sense of what to notice to avoid these common, recognisable pitfalls.

### Systems thinking as a leadership ‘mindset’

To be effective, a leader needs to understand how systems work. An effective leader is a ‘Systems Thinking’ leader. Black et al. (2013) succinctly defined the features of systems thinking, based on observations previously made by Seddon (2003) shown in Table 8.1. A number of principles will help inform how to look at organisations as systems.

First, the most fundamental principles of Systems Thinking involve getting an ‘Outside-In’ view of the work that your team is undertaking and always basing the work on ‘what matters to biodiversity’. Thereafter, work is designed to meet those needs, informed by factors which relate first and foremost to the natural world (breeding cycles, seasons, lifespan of species) as well as organisational constraints (e.g. budgets and human timescales).

Second, you do not ‘manage people’, but rather you seek to ‘manage the system’. This means shifting from looking at the person, to looking at the work (and its context). Rather than ‘telling people what to do’, or ‘telling them when they have made mistakes’, or ‘punishing them for errors’, or ‘rewarding them for success’, or ‘getting them motivated’, or ‘getting them engaged’, you instead seek to set up the system of work processes, team processes, rules, regulations, goals which enable people to get on with what you employ them to do – namely the work, plus their ideas and effort to continually improve it.

Third, when we seek to change organisations, systems theory compels the *integration of change* into the organisation. For example, to improve work, we redesign work processes, thereby instilling a new mindset which thereafter continually improves the work. If we develop the capacity of staff, we get them involved in considering their needs in relation to work and developing skills that address those needs rather than just ‘going on a course’. When we consider improving people’s performance, we develop habits and norms (a culture) of talking about work, performance, problems, and solutions on a day-to-day basis in the workplace rather than having a stand-alone appraisal system (Coens & Jenkins 2000).

Some ideas prompted by systems thinking are counter-intuitive for conventional managers. For example a manager might say “surely we need to set aside time to talk about team performance, since we are usually too busy with work!”. No, instead examine why we are too busy, which may identify better solutions to performance (which may be nothing to do with the team itself).

The comparisons in Table 8.1 demonstrate the difference in perception, assumption, and behaviour in a Systems Thinking leader. Learning is a central ethos, seeking to improve the system, based upon the flow between its activities and components. Similarly, assumptions about how people fit in the system and their motivations and perspective enable optimisation (e.g. encouraging cooperative collaborations rather than contractual arrangements).

**Table 8.1** Contrasting approaches to management in conservation, adapted from suggestions by Seddon (2003), Black and Groombridge (2010), and Black et al. (2011).

<i>Principle</i>	<i>'Command-and-Control'</i>	<i>Adaptive management</i>	<i>'Good Practice' frameworks</i>	<i>Systems thinking</i>
Programme design perspective	Top-down hierarchy	Top-down and bottom-up	Top-down	Open system, outside-in
Ethos	Control	Evidence-based	Compliance	Learning
Design of work	Specialist functions in 'silos'	Functional specialism with collaboration	Follow elements of the project plan	Understand needs and relevant flows of activity
Approach to managing change	Reactive projects	Trial and error	Management as a 'process' using audit	Ongoing, integral, part of normal work)
Motivation of people	Extrinsic (reward and reprimand)	Assumed consent	Compliance required	Intrinsic (self-motivated)
Decision-making	Separated from work (carried out in the hierarchy)	Committees take suggestions from practitioners	Made within the boundaries of the framework/project plan	Integrated with work
Measurement	Output, targets, standards: related to budget or plan	Evidence-based practices	Project sustainability	Capability, statistical data: link to purpose
Attitude to stakeholders	Contractual	Participative	Inclusive	Cooperative
Role of managers	Manage people and budgets	Manage activities and decisions	Manage projects and budgets	Act on the system
Attitude to biodiversity	Contractual: only do what is required (e.g. only follow the recovery plan)	Consider impact of actions on biodiversity	Fit needs of biodiversity within project parameters	Always start with 'what matters to biodiversity?' (e.g. species, habitats, etc.)

### **Change and maturity in an organisation – a managed process**

Clearly, organisations will not exhibit all the features of systems thinking in Table 8.1 (last column). Most people working in organisations will consider some elements yet be ignorant of the importance of other elements. There is a significant challenge for leaders in getting their organisation to transform itself into an effective 'system' that is purposeful and responsive to the needs of ecosystems and species of concern.

For more than a decade, evaluation work using the Conservation Excellence Model (Black & Groombridge 2010) has given opportunities to see dozens and dozens of conservation organisations first-hand at all stages of maturity, levels of performance and expertise, and in all shapes, sizes,

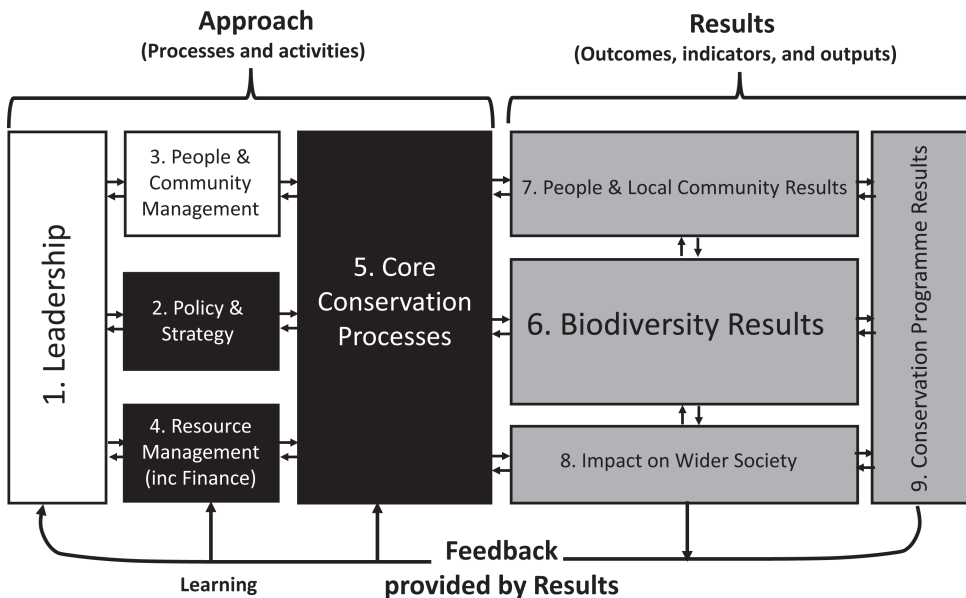


Figure 8.2 The Conservation Excellence Model (Black & Groombridge 2010) describes how to evaluate an organisation's overall system: purpose, performance, processes, and people.

nationalities, and disciplines. This provides unique insights into what good looks like (CASE BOX 8). Conservation Excellence assessment involves examination of an organisation's results, processes of work, stakeholders, policy and strategy, finance and resources, people and leadership (Figure 8.2).

Depending where a person works at any particular time in their career, it is likely that differing organisational situations (or 'states') will be encountered, as summarised later.

#### *New project still under design (greenfield state)*

An ideal start point for most leaders is to be able to start with a 'blank slate' – an organisation that needs to be designed and built and managed to deliver the work. Many newly established conservation projects offer this opportunity, but the leader must remain conscious that although the project may be new, it is possible that some processes and people may be relics of other well-established organisations (e.g. project partners). If the latter is the case, then the leader should consider the project a 'semi-greenfield' organisation (see the following).

With a greenfield project it is essential that the leader:

- Establishes and agrees governance structures and decision-making authority
- Agrees project purpose, boundaries, and budgets
- Carefully selects the team
- Establishes organisational values
- Identifies work processes
- Makes everyone understand their role and supporting individual processes
- Coaches staff on team processes and support processes (decision-making, meetings, budgets)
- Establishes partnerships and starts to build external relationships

- Inducts the team, so they are able to be ambassadors outside the organisation
- Agrees project plans and work schedules
- Establishes ways of monitoring work progress
- Develops a shared vision, reviews team values, and developmental plan (including training)

#### *Newly established organisation (semi-greenfield state)*

This is a common organisation in conservation, typically a team that has been together for less than ten years, often with a significant proportion of new staff (who have joined over time as the project has expanded) and with a relatively fresh outlook on the work of the organisation. Despite the age of these teams, the organisation is reminiscent of a true greenfield project but with a few important considerations. A particular challenge is the alignment of people to purpose and the definition and improvement of work and team processes. The leader needs to remember that people, including those with a relatively short lifespan within the project, will have a sense of ownership and familiarity with how things are done – essentially the established ‘norms’ of behaviour in the team.

To shift a semi-greenfield organisation towards sustained, successful, impactful performance, the leader is required to:

- Engage all staff in understanding the strengths and weaknesses of the organisation
- Review the purposefulness of the organisation and the level of common purpose in the team
- Provide clarity by describing the appropriateness of processes
- Show good performance and whether/how performance has been improved over time
- Review team/organisation vision and values (if known) or develop them in light of the above
- Review partnerships and working relationships with stakeholders
- Establish with the team new ways of monitoring work progress (where needed)

#### *Shining star organisation*

This is a relatively short-lived organisation that achieves much and then is disbanded. Many traditional short-term conservation projects fit this category, but other purposeful organisations who hit a need, a trend, or a fruitful area of funding also fall into this description. The lifecycle of project organisations means that they are difficult entities to transform, and leaders need to engage the whole team to pursue high performance. At the end of life of these organisations, various options emerge:

- **Planned obsolescence** (exit strategy approach) where the project hands over responsibilities to local people/organisations, the project work is completed, and the staff and resources leave or are re-distributed. An alien species eradication project on an island fits this type.
- **Project renewal** may occur if the project is completed but new funding or new direction enables it to be reinvented for a new phase of life. This can be observed in programmes large and small. The advantage of this approach is that existing stakeholder relationships and infrastructure can be retained and developed upon.
- **Absorption** sometimes occurs in conservation, where an organisation or project that is ‘on to a good thing’ will be absorbed by its funder and become a subsidiary of the host organisation) and can be considered a brownfield site and repurposed and rejuvenated accordingly.

- **Wind-down** involves the project being actively steered through decline and disbanded in a managed way over a period of time (i.e. a process of obsolescence) which allows a dignified exit strategy, redeployment of staff where possible, and repurposing of effort and resources within the host organisation, funders, or other stakeholder.
- **Shut-down** is the worst-case scenario where the project runs out of money and is forced to shut down (i.e. fail) in an unmanaged, painful, and disappointing process. The word of warning here is that even effective, purposeful, and useful organisations can be shut down.

If a ‘shining star’ organisation offers genuine sustainable future impact, it should be developed into a long-term sustainable organisation (see the following). The Madagascar Pochard Project is a good example of a high-impact Shining Star, making a real difference for the species and is now transforming into a longer-term locally managed conservation programme. Another example in The Cayman Islands is Blue Iguana Conservation, which is now a unit which is structurally embedded in the National Trust.

#### *Long established organisation with high maturity/effectiveness (‘bluefield’)*

I have arbitrarily given these the nickname ‘Bluefield site’ since the organisations have a decent level of good performance and reputation, akin to the ‘blue riband’ marque of superior performance in business, sports, and other pursuits. These types of mature, strong-performing organisations are relatively rare in any sector of human endeavour (health, industry, commerce, services), probably only 10–15% of organisations. It is much more common, in general, for organisations to do well for a short period (e.g. more like a shining star, although time lags may give them a five-, ten-, or even 15-year lifecycle) then burn out and disappear or fail.

In the conservation sector bluefield types of mature organisations are even rarer. In dozens and dozens of wildlife and development organisations that I have examined in detail (and I stress that this has involved me working alongside teams of highly competent independent colleagues), less than 10% of conservation organisations (whether NGO, government led, international, national, large, or small) fit this bluefield category, so it is likely across the sector that less than 10% of conservation organisations match this description, as a considered estimate.

A mature organisation of the bluefield type will be relatively straightforward to develop and improve as long as there is trust between the leader and the employees and stakeholder base. This requirement of trust (and building of relationships) is why these mature organisations will take *time* to develop, despite being perfectly feasible to change and improve. The limiting factors include inevitable organisational inertia and resistance, sometimes built within hard systems and also often in the minds and norms of staff (i.e. the pervading ‘organisational culture’), especially if teams include long-serving staff.

Wildwood Trust is a good example of a well-established, yet dynamic and continually improving organisation that demonstrates world-class activities in its portfolio of work. The organisation that has undergone significant renewal, transformation, capacity building, and growth in the 2020s (despite the global Covid-19 pandemic) whilst remaining focused on its core purpose. It is on track to mature, in time, into an excellent organisation.

The Mauritian Wildlife Foundation is another good conservation organisation with a broad portfolio of responsibility whilst the Pygmy Hog Programme is less well-known, but does excellent work in a very holistic approach for an otherwise species-focused organisation. In time Dahari Comores is an NGO that will be delivering outcomes at a similar level of ‘blue

riband performance'. Whilst these organisations are not perfect, their leadership teams have the good habit of revisiting and renewing their approach and adapting to new challenges and opportunities, so are on a trajectory towards excellence by any measure within the sector or when making comparisons with other great organisations in other sectors. Other examples discussed elsewhere in this book that are of this bluefield quality of organisation include the Maui Forest Bird Project (which has been reinvented over the years), and the African Cheetah Conservation Initiative (which has evolved in complexity and scope, whilst remaining a very discrete entity).

An effective leader of a bluefield operation will be one who watches, listens, and learns, then coaches the team to seek further development and renewal, to develop into successful long-term, impactful organisations.

### ***Long established BUT underdeveloped or outdated organisation ('brownfield')***

Most organisations in this category believe that they are either stars or bluefield organisations, but in reality although good at some things, they are poor at others. Consequently, overall impact is significantly suboptimal, although people in the organisation may not perceive this.

A brownfield site is characterised by a well-established team, facilities, equipment, methods, and ways of doing things (i.e. working culture). Some brownfield sites are complicated by the presence of their founder, who may be in the management team, or on the trustee board, or a retained 'expert' consultant. Changing a brownfield site is the most difficult leadership task.

With a brownfield project (or organisation) it is essential that the leader does the following:

- Establishes and agrees governance structures and decision-making authority (especially where a founder is involved), including budget authority, advisory boards (as opposed to managing boards), management by exception protocols, visit and meeting arrangements
- Agrees project purpose, boundaries, and budgets
- Reviews and establishes organisational purpose, vision, and values with the team
- Develops the management team to handle improvement and change
- Identifies strengths and weaknesses with the team, including any red flag problems (see later)
- Coaches staff on team processes and support processes (decisions, meetings, purchases)
- Reviews work processes' relevance and design
- Reviews staff roles and supporting individual processes
- Reviews partnerships with relevant team members and trustees to build relationships
- Keeps the governance structure (e.g. trustees, directors) up to date with developments
- Agrees (amended) project plans and work schedules
- Establishes ways of monitoring work progress, assets, and facilities
- Establishes effective methods for managing processes, facilities, and people
- Revises the team as required according to behaviour and performance requirements
- Celebrates progress and encourages the notion of all-one-team

'Red flag' problems that appear in brownfield situations and which need immediate attention will include any *high-risk areas* such as health and safety, legal, ethical, financial, or security/personal security problems, either observed or raised by the team. In some cases, these problems may identify a particularly weak team member (e.g. where neglect has occurred), and action needs to be taken. However, for most other aspects the focus will be on improving the work. Ideally, if people who are poorly suited to the work are 'shaken up' by any

of these processes, they will choose to leave and find another organisation better suited to them. Even so, the leader needs to continually reflect on whether leavers are being lost with good reason (i.e. are unsuitable, incapable, or uncooperative) and not because the process of change is ineffective (i.e. people needlessly upset, discouraged, or trust being lost). In the latter cases, the leader needs to remain realistic, since unsuitable people may claim to be ‘upset, discouraged, or have lost trust’ so the leader must discern feedback carefully.

For others who feel uncomfortable or unfamiliar with change, it is the leader’s responsibility to coach and support them through the change. In this sense, it is good for the leader to develop the whole management team to co-manage this process and be able to intelligently and empathetically support colleagues. If you have concerns with the capability of any managers with this (i.e. they could become disrupters), then you need to take suitable action. At the same time, if you have a founder present, keep them up to date with your changes, so they become an ally to you and *not* an ally to those who wish to disrupt or get things back to ‘the good old days’.

The last aspect of refreshing the team is the most sensitive process. By establishing the earlier steps, many unsuitable people will leave as part of a relatively natural turnover. The leader must be diligent in making recruitment processes capable of bringing in the right people to support new values and vision. Depending on local capacity this may be a stop–start process. Be mindful of ensuring that you actively aim to get a critical mass of people supportive of new ways of working.

Over time, ensure that the organisation (i.e. the people within it) gets used to recognising achievements and celebrating progress. These processes of recognition and celebration must be carefully designed so that people are confident that they are all part of one team, that performance is attributable (i.e. clearly delivered by a specific team or person), or otherwise considered a shared achievement. In every case, celebration must be for achievements that are attributable to work, or if not, they are clearly and simply attributed to ‘good fortune’ when it happens. People need to have a sense of reality so that they appreciate good times (‘luck’) but also know when they are doing a good job. To reach high levels of maturity, the leader needs to encourage learning from disappointments, unexpected bad results, or plain old ‘failure’.

Shifting towards a no-blame learning culture of the organisation is one of the most important and satisfying ‘soft’ outcomes that any leader can aspire to achieve. It is one of the distinguishing marks of an organisation moving towards true excellence.

### *Truly excellent organisations*

Excellence concerns a set of organisational characteristics which transcend the age, size, context, resource-base, and challenges of the organisation. Excellent organisations may be small and young, old and large, international, local, regional, voluntary, or professional. Excellent organisations may be projects, programmes, multi-stakeholder collaborations, discrete teams, or well-defined organisations (such as NGOs, corporations, government departments, or research institutes). Leaders should aspire to create an excellent organisation.

However, by way of introduction excellent organisations are distinguished by the following:

- **Clearly purposed** to meet the needs of specific species, ecosystems, habitats, landscapes, or units of biodiversity of concern. This means it makes decisions; allocates resources; organises itself, its infrastructure, budgets, plans, and its people around meeting those specified

needs of biodiversity. Everyone in the organisation should be able to describe the purpose of the organisation and its goals.

- **Achieves sustainable results** which are a reflection of the work and improvements initiated directly by the organisation itself. It is a learning organisation. Its positive impact on biodiversity increases over time.
- **Has mature working relationships with key stakeholders** (partnerships, suppliers, volunteer support, co-management, etc.) which are committed, mutually beneficial, based on trust, and likely to be sustained for the foreseeable lifetime of the purpose of the organisation.
- **Understands and manages conservation processes** to deliver impactful and sustainable conservation outcomes, delivering high performance.
- **Has highly engaged, capable staff** who contribute to high performance and are actively and creatively engaged in continual improvement.
- **It shares its learning and seeks learning** externally and is approached by others who themselves wish to learn about effective conservation.

These elements are challenging but are all achievable. Leaders must not sacrifice the achievable (excellence) for the adequate (mediocrity). This is one of the great tests of a leader's own excellence.

In comparison to other sectors (business, industry, public services), the conservation sector in general lags behind in terms of organisational maturity (I have previously been involved in evaluating organisations across a range of sectors for national and regional and international excellence awards, so can confidently make comparisons). The structured organisational assessment that is possible using the Conservation Excellence Model (see CASE BOX 8) does allow us to make some reasonable and appropriate judgements of what good looks like (Moore et al. 2020) which helps us to learn.

The learning that can be achieved by examining what good conservation organisations do, how they are purposed, organised, and how they pursue improvement offers the whole sector immense opportunity. The better that leaders become in understanding and communicating this type of organisational learning (which sits alongside ecological learning), then the greater scope there is to develop more effective programmes and collaborations. One of the encouragements of the past decade has been the increasing willingness for cooperative approaches to conservation rather than the competitive brand-based conservation initiatives proposed in the previous 20 years.

### **Case Box 8 Conservation excellence assessment across the world**

Conservation excellence assessment has been undertaken on programmes, projects, and organisations since the Conservation Excellence Model was first developed in 2008. Initial species-focused programmes included desk-based assessments of the po'ouli and black-footed ferret (Black & Groombridge 2010), as well as site-visit-based assessments in Europe, and a number of amphibian projects in Asian and Africa (Black et al. 2011). Over time, the assessments have included a diverse range of programmes and organisations covering landscapes, community conservation, protected areas, and rescue and recovery. Figure 8.3 gives a snapshot of recent assessments across the world. A range of independent trained CEM



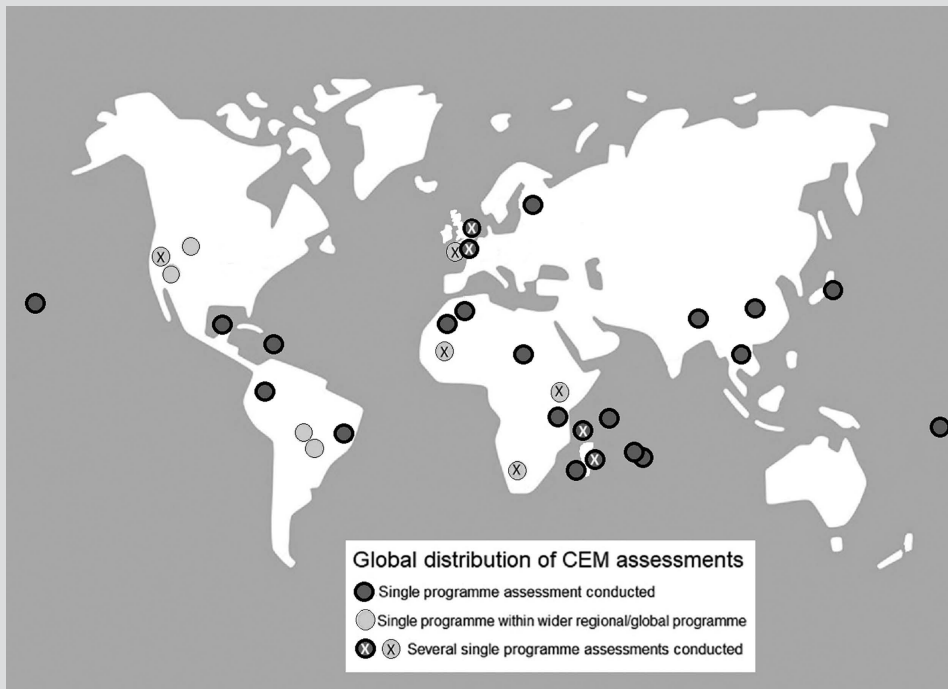


Figure 8.3 A snapshot of programmes assessed with the CEM worldwide in recent years.

assessors (over 30 assessors from around the world are actively involved) contribute to each assessment, which in each case is run by a small team of which at least one person visits the site of the organisation for observation, interviews, staff meetings, and ‘ground-truthing’ of any documentation or information previously sent by the host organisation (during Covid-19 travel restrictions this was adapted to online interviews and meetings).

The assessment uses a position document prepared by the site-visit assessor. The position document summarises the status of the organisation against the criteria of the CEM (see details in Amavassee et al. 2022), and the assessment team uses this as the basis for their structured assessment. Assessments usually involve a one-day meeting or maybe two or three half-day meetings, depending on the size of the organisation being assessed. The assessment includes detailed feedback on strengths, areas for improvement, and potential actions recommended by the assessment team. All the feedback is developed by consensus, enabled by having international assessors of diverse professional backgrounds (see Amavassee et al. 2022) who are highly trained in developing insightful feedback, based upon systems theory. The team also develops an agreed set of feedback scores on each criterion which generates an agreed overall score for the organisation out of a possible 1,000 points. The scores themselves are not important in terms of actionable changes, but they do allow comparison with other organisations which can form helpful feedback to the host organisation (Moore et al. 2020; Amavassee et al. 2022; Nery Silva et al. 2022; Chesney et al. 2023). The feedback comments and recommendations from assessors are a particular goldmine of information.

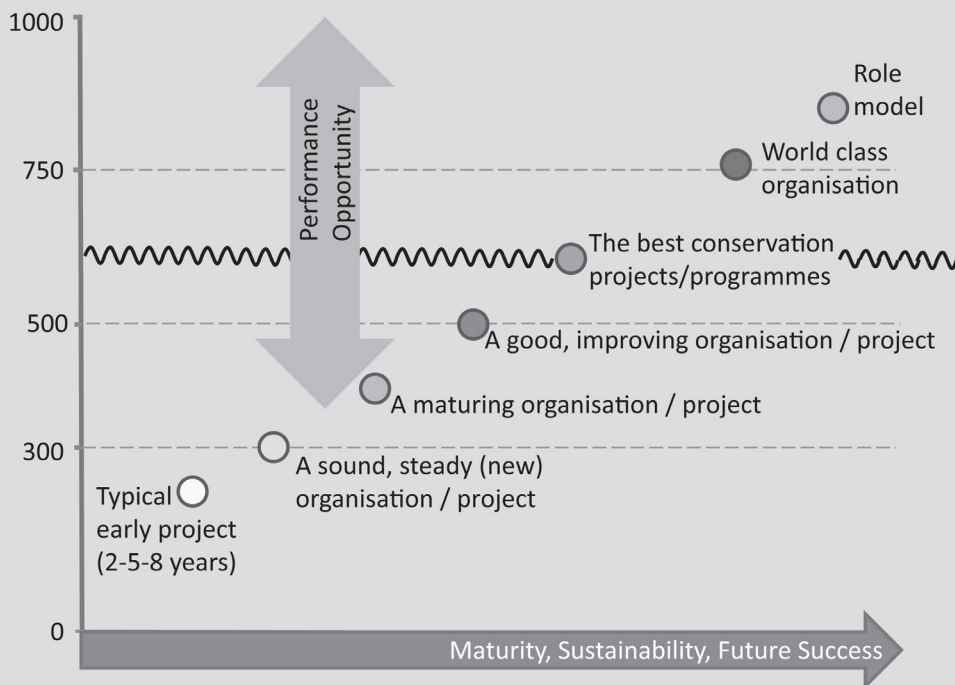


Figure 8.4 Levels of organisational maturity measured using the CEM criteria (relative CEM scores) including high scores for businesses using the equivalent EFQM model (Black & Groombridge 2010).

Figure 8.4 shows how the different levels of scores relate to the relative maturity of organisations. To date, the best conservation organisations fall a little short of the world-class organisations which are encountered (although are not common) in some other sectors. That said, some excellent practice has been encountered, and the organisations which have been assessed are, with only a few exceptions, usually barely ten years old. In addition, many have matured remarkably well and often under extreme demands of resource, context, and conservation challenge.

A particular encouragement for the sector is the level of improvement that has since been observed in these organisations. This is significantly down to the leadership of each organisation; people who were prepared to be open to a demanding (but constructive) evaluation and with preparedness to learn and apply that learning. Several of these organisations have now been through a second assessment cycle (every 3–5 years) and in that time have seen positive improvements. This is not an automatic outcome, however. As seen in Figure 8.5 (which shows the CEM profile of three reassessed organisations) one, a national bird conservation programme, received a lower overall score after five years (2015 and 2020 assessments). This downturn was, however, due to a complete redirection of the programme, which included new conservation processes, new stakeholder groups to engage, new skill sets within programme teams, and new priorities. The organisation had to grow in size and complexity as

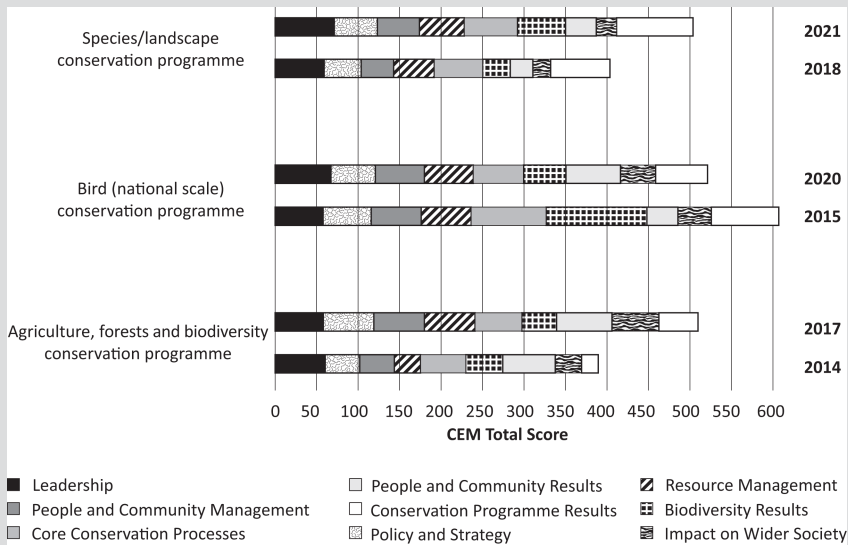


Figure 8.5 Examples of organisations improving when informed by CEM assessment.

a result. The programme had not completely restarted, but the changes were significant (as were areas for development), as identified by the assessors. The programme will continue to learn, improve, and be impactful for the species and ecosystems which are its concern.

Conservation excellence assessment offers a rare learning opportunity for organisations. The assessors are professionals of the highest insight, dedication, and seek to help the organisations that seek their feedback. As organisations learn more about themselves, and leaders share more of what works and what can be improved, the opportunity exists for the conservation sector to make a step-change increase in its positive impact on the planet. It is a choice to be made by its leaders.

## Chapter 8 reflection – consider organisations and their work as systems

A systems thinking leader will be aware that:

- Systems thinking requires an outside-in view, avoids trying to ‘manage people’, and integrates change and improvement into the work (not via ‘projects’).
- A systems-based organisation has a clear understanding of purpose, boundary, task, team and individual processes, and feedback cycles (see Figure 8.1).
- Conservation interventions vary in type and include species, threats, habitats, ecosystems, landscape, community and markets, legislation (and policy), capacity, process-level, and organisational level. A leader must ensure that interventions (and there may be several approaches) match the organisation’s competence, capability, and capacity.

- The maturity of organisations varies considerably; some are greenfield projects, semi-greenfield, shining stars (short-term), ‘bluefield’ (long-standing high performers), or brownfield (long-standing but stagnant). Few organisations are truly excellent, so step-change improvement in conservation is possible.
- Conservation excellence model (CEM) assessments allow internal review and comparisons with other organisations, following a systems perspective of the organisation.
- Excellent organisations are clearly purposed, achieve sustainable results, have mature working relationships with stakeholders, understand and manage conservation processes, have highly engaged, capable staff, shares learning, and seeks new learning.

### Exercise 8 – consider the system around your team’s work

- (1) Draw a systems diagram for your team or organisation (or programme) and include annotations explaining the specific elements of your programme including:
  - (a) The purpose of your team/organisation/programme (one phrase or sentence)
  - (b) The boundary of your work
  - (c) The task core processes (name each one)
  - (d) The team processes that you use
  - (e) The individual processes that you use
  - (f) The quality feedback systems that report how well processes are working
  - (g) The renewal feedback systems that tell you if you are doing the right things
  - (h) External stakeholders
- (2) List your major stakeholders.
  - (a) Identify which have power to influence your work and which have low power.
  - (b) Identify the level of interest of each stakeholder (high or low) in your work.
  - (c) Place them on the following ‘Power Interest Grid’ (Table 8.2).
  - (d) Identify strategies for managing each stakeholder according to grid position.
  - (e) Consider if interactions with each stakeholder reflects the grid strategy.
  - (f) Consider improvements to managing your relationship with each stakeholder.

Table 8.2 Power-interest grid for mapping stakeholder strategies.

<b>High power/ influence</b>	Keep them satisfied	Engage and consult
<b>Low power/ influence</b>	Monitor them	Keep them informed
	<b>Low interest in your work</b>	<b>High interest in your work</b>

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## **Part III**

# **Skills and competencies for conservation leaders**



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## 9 Verbal skills, listening, and negotiation in conservation leadership

### Personal Perspectives – Introduction

Some of us appear ‘born’ with strong social skills or have been blessed with nurturing that enabled us to develop the abilities to read people and identify how to communicate successfully, others less so. Intermingled with these influences are cultural effects, tradition and norms, plus opportunity, methods, and experiences. Each of us carries some level of interpersonal abilities, whether effective or ineffective. The privilege of our position as human beings is that we have enormous capacity to learn new skills, and how we perceive, think about and verbalise information is one which we can learn, practice, and improve upon throughout our lives. I would suggest that whatever a person’s current level of capability is, interpersonal skills are one of the most learnable skill sets available.

I am indebted to a former colleague Derek Middleton for much of my own learning on this topic. Derek was an excellent consultant, coach, and mentor, with decades of experience transforming organisations in the UK and overseas. He was well-read in psychology and systems theory which influenced his ideas on self-management and interpersonal skills. He was a pragmatist, ready and able to call out unhelpful behaviour in others, particularly ego-driven behaviour, which lies at the root of ineffective manager–subordinate interactions. Derek has been previously acknowledged by Bill Peace Junior, former P&G Director of Global Product Supply in the book *Supply Chain Management* (Peace 2011). This chapter is my chance to acknowledge Derek’s influence by tying his contribution to the learning that I received from working with him. Derek and another valued colleague, David Williams, were extremely influential in my early career, and are both acknowledged in the book *Timeless Management* (Coppin & Barratt 2002). I also appreciate the insights from Jamie Copsey on negotiation and dealing with conflict which influences sections of this chapter.

Interpersonal skills are not a trick. Your behaviour is based on integrity and clarity. Do not seek to develop skills to give you the one-over on colleagues or staff. Like boxing, these skills are the art of self-defence. If you want interpersonal skills to enable you to impose your will upon other people, then you are seeking the wrong path, you are ‘barking up the wrong tree’. If you do not have the integrity, humility, or confidence to take a message to others, then work on those aspects of yourself first. Be ready to look back on earlier topics in the book. Remember the key to effective interpersonal skills is to value yourself and others. If you do not, people will see through your veneer of niceness and will neither trust you nor follow.

### **Introduction to interpersonal skills**

Interpersonal skills concern the abilities and behaviours that enable people to interact with others (Smith 2000; Englefield et al. 2019). Relevant behaviours cover a wide range of different scenarios, of which many for leaders are not usually encountered in day-to-day life including task setting, giving instructions, disciplinary discussions, investigation and enquiry, answering questions, discussions in meetings, negotiations, giving feedback, and so on. Most leaders engage in social interactions with staff and colleagues, where similar consistent skills will also apply. A whole genre of popular books has grown out of interest in this topic (covering neuroscience, psychology, and sociology, through to popular self-help titles and personal exhortation). Few books deal with the intricacies of interpersonal interactions in leadership and management, and for this reason it is explored in this chapter.

From experience of working with hundreds of professionals, not everybody with a conservation science background relishes working with people, and this is true in many leaders. Whilst many people thrive on working and collaborating with others, some find the whole experience of interacting with other people as a necessary evil at best or an uncomfortable responsibility avoided where possible. Clearly, interactions with other people are inevitable, so skills need to be developed to ensure personal effectiveness in these situations. However, as a mature leader we should also look beyond this utilitarian view of interpersonal skills. There is now increasing evidence that regular, stretching interactions with other people stimulates our brains and supports well-being in the short term (Haidt 2006) and also supports longer-term mental well-being and brain health.

If you are the sort of manager who prefers to hide behind a spreadsheet on your computer screen, you would be better off establishing the habit of getting out of the office to regularly speak to people. At a personal level it will make you more effective in your job. At an organisational level you will encounter more interesting angles on operational issues. Some research has even suggested that general office chatter may increase innovation and improvement within teams, so there can be a benefit to overall productivity and morale (Fayard & Weeks 2007; Methot et al. 2021). As a leader you have an opportunity to model that kind of discursive culture, where people are used to sharing opinions, ideas and giving feedback to each other.

There are of course particular cultural norms of behaviour which may differ, and these differences can be encountered by conservation professionals. Indeed, conservation professionals come from a variety of national, cultural, educational, and social backgrounds; so this topic is examined from a perspective that takes into account those differences in expectations and social customs. A start point is having the sensitivity and expectation that people have different preferences, so *a willingness to seek to understand others is important* for the leader.

From a psychological perspective, an understanding of interpersonal skills must be based upon what is effective rather than ‘what is my personality?’. In that sense you must accept that any behaviour can be learned, to some degree or another, and that learning will be enhanced by its application and your ability to reflect upon and refine your level of skill. This will require an internal process, of training your mind, as well as practising verbal and non-verbal skills. The beauty of this learning is that it can be readily applied on the job and improved from day to day.

The additional thing to have in mind when reflecting upon and learning about interpersonal skills is that in essence, effective interpersonal skills are nothing new. They are behaviours and uses of language which have been utilised in human communities for tens of thousands of years. These skills enabled us to communicate, to collaborate, to make decisions, to pass on information. What has occurred in many communities and societies in more recent centuries and decades is that new sophisticated social skills have been developed and established as norms

to enable particular groups to wield control over other people. These groups may be relatively benign agents such as parents, schoolteachers, acquaintances, or maybe more belligerent such as politicians, police, military officials, or, as is usual in organisations, managers. Many of these social norms, or rules of behaviour, are, when placed under scrutiny, somewhat arbitrary or more often for the benefit of the rule-setter. A classic example, eloquently challenged by Manuel Smith (1975), is the expectations placed by parents on their children concerning 'good' and 'bad' behaviour. Nevertheless, the same manipulations of how we see others, how we choose to behave, or more commonly, how we automatically behave continue through our education and into our professional lives.

This chapter enables the reader to be aware of behaviour in oneself and others and to understand people's responses to that behaviour. Alongside this, verbal techniques can be applied, alongside models of behaviour to enable a person to interact with others more effectively. For some readers this will be common sense, for others more of a challenge to orthodox thinking. Whichever is the case, there is an opportunity to learn, to develop more systematic ways of behaving in certain situations, and to adapt your personal style to achieve more useful outcomes.

Placing these ideas, theories, and practices into the context of conservation leadership has involved coaching and training hundreds of professionals from all parts of the globe. Questions of cultural differences are inevitably raised in those discussions, but any assertion that 'this will not work in my country' has never been forthcoming. The principles as described, which you can practice yourself, are applicable and flexible enough to utilise in any context. As a final thought before considering interpersonal interactions in detail, in my experience, people are most concerned about person-to-person communications when dealing with issues of conflict, or problems, or underperformance. Here is a rule of thought (i.e. a mindset), to consider adopting, as suggested by Deming (1982): 95% of problems are due to the system and *not* the person.

This means that *most of the time you are better off talking about the work* (i.e. 'what do you see happening at the moment?', or 'what is the problem that has arisen in this task?') than talking about the person ('what have you done?' or 'why are you having a problem with this task?'). The latter will create resistance and conflict. The former, focused on work, is likely to be a more constructive conversation (Seddon 2003).

## **Psychology of interpersonal interactions**

The reader needs to get a grasp of human psychology to have the best basis for developing effective interpersonal skills. In the past, lay people (managers or academics in other specialisms) have tried to palm-off interpersonal skills learning as some kind of 'popular science', 'cod psychology', or 'airport bookstore management'. Of course, techniques which are plucked off-the-shelf will lack credibility; there is no value in half-learning. If your understanding is flawed or too patchy, you are likely to fall into problems. For example, Susan Scott's (2004) premise of 'Fierce Conversations' which involves straight talking with people and challenging ineffective work or interpersonal interactions (both good suggestions) was unfairly criticised for inadvertently encouraging people to just consider a fierce approach (i.e. confrontation). To avoid this type of misinterpretation, the important area of intellectual development is to *integrate knowledge* so that your principles of interpersonal behaviour are consistent with your wider approaches to leadership, and aligned with your personal style, namely who you are. You are not trying to be someone else; you are learning to be a more effective 'you'. Most people who learn and apply the techniques actually find their professional performance transformed, with a knock-on benefit in personal life. The good news is that you do not necessarily have to be an expert in psychology to become effective in working with people.

**Principles for interpersonal interactions**

Learning to improve interpersonal skills may nevertheless seem a daunting challenge. Most of us are not, after all, psychologists. It is worth maintaining three principles to steer *what we externally demonstrate* in our conversations and the words we say.

- First, 95% of problems are caused by the system not by people (Deming 1982), so where at all possible **focus conversations on the work**, not on the person (or putting it another way, if you incorrectly focus on the person with blame, criticism or personal attack, then 95% of the time you will be getting it wrong!). Seek information and understanding that will inform you about the work issues. Focus discussion on how it affects your work or the other person's work, or general work outcomes, or the morale and effectiveness of other people (if you are discussing obvious negative behaviour, such as bullying or discrimination). A work-focus will enable constructive dialogue.
- Second, aim to **preserve dignity in the situation**, for yourself *and* the other person (Clark et al. 2010). If dignity is maintained, the conversation can start, continue, and conclude. Dignity allows people to discuss issues at a rational level (even with emotive or personal topics) rather than being carried through an interaction of high emotions and associated physical and mental discomfort.
- With both in mind you must **remain clear about the relevant issues**. Do not “beat about the bush” (i.e. *avoid* being vague and not getting to the point). If there is a negative impact, say what it is very clearly; if there is negative behaviour, challenge it clearly; if there are consequences, state them clearly (Coppin & Barratt 2002).

However human interactions do not just involve an external, visible process. We also need to **understand and manage our mental processing** of a situation; how our perceptions (through our senses), our mind (how our brain operates), and our behaviour are linked. We can go into some detail, since recent developments in neuroscience have given us an understanding of brain function which is consistent with earlier concepts of psychology and behavioural science (Jacobs 2009; Peters 2012). By triangulating these concepts, we can identify principles which generally work. People's interactions with others will be influenced by:

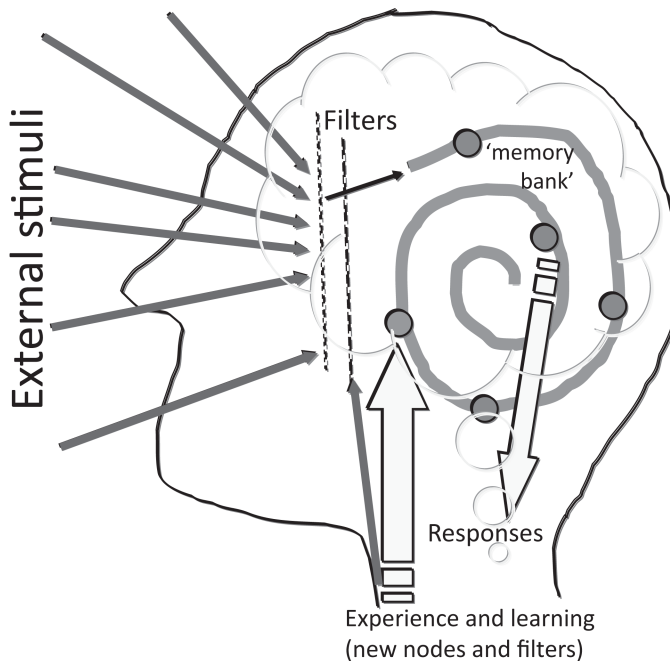
- The **Attention** paid by each person
- The **Message** being conveyed
- The **Context** of the message
- The **Experiences** remembered by each person
- The **Self-identity** or persona of each individual

If we understand how our mind influences our behaviour, we have a chance to influence or control these aspects. For example, if we need to have a disciplinary conversation with a colleague, we can:

- Choose to be attentive, which includes your use of specific *listening skills*, to enable you to understand better and encourage dialogue with the other person.
- We can also make choices about the topic, *what we are going to focus upon* in the discussion. In this case are we going to blame, punish, belittle, or helpfully focus on improvement?
- Make decisions to influence *the context of the discussion*, such as *when and where* to have the discussion to influence the way that the other person engages and responds.

- Be mindful of previous experiences (good or bad) and *devise strategies* (including physiological well-being) for the present conversation that will enable a good outcome.
- Be clear on your *personal rights*, as manager, to have a disciplinary conversation and be aware of the other person's perception of themselves and yourself.

Clearly, against these options, we can make helpful or unhelpful choices, or we can forget to make any choice and slip into autopilot (which may or may not be helpful). In summary, there are plenty of options for different behaviour, and these combinations will influence the success of the interaction. Similarly, the other person facing you in the conversation will be juggling the same issues and may get them right or wrong. In any interaction we will be drawing upon a number of elements (see Figure 9.1) including stimulus of our senses (what we see, hear, touch, smell, or taste), what we mentally filter in and out, essentially what gets our attention, what we remember that relates to the situation, and our response. Our responses will vary according to whether we process this information through an emotional route, an automatic route, or a



*Figure 9.1* A schematic of mental processing of stimuli, memories, and responses. The thin arrows on the left represent different stimuli which impact our senses. The vertical dotted lines represent the inbuilt mental filters we use to simplify information prior to processing, which may be based on our values or attitudes, preconceptions, and prejudices. The smallest back arrow in the centre is the remaining information which we allow into our mind. The coiled line is the memory bank which includes specific memories (in circular nodules) against which we attempt to match the stimuli. Those memories will instigate a response (large downward arrow), often in our emotional centres, which will drive our physical response to the stimuli. Instead of always being subjected to reactions based on previous memories (which may be negative), we can train ourselves to identify positive memories as reference points to create a feedback learning loop. We can also challenge ourselves to change our filters (our preconceptions and prejudices), to allow in more information to enable us to re-educate our responses (D. Middleton, personal communication).

rational route. If your team have agreed values and behaviour, then many of these expectations for openness, feedback, and clarity could be included and become a less threatening part of the team's 'norm' in day-to-day discussions.

Figure 9.1 is an adaptation of a visual model which Derek Middleton introduced me to in 1994, drawing upon knowledge of researchers such as Vygotsky (1978) and Cole and Scribner (1974) among others. Professor Steve Peters' in-depth book *The Chimp Paradox* (Peters 2012) delves into this system in more sophisticated, but accessible detail, calling upon modern understanding of neuroscience, psychology, and psychotherapy. I will not explore Peters' version of this model as you can better read it in his own words, but the premise is consistent with the concepts discussed throughout this chapter. It is important to remember that psychology is about understanding people's behaviour, it is not about second guessing what is going on in their minds. If you want to have effective tools to address the psychology of work interactions (or indeed interactions with communities living in landscapes or alongside endangered species), then you must learn to observe behaviour and understand the stimuli, responses, and actions which appear to interact with those behaviours.

### *Self-Identity*

The importance of identity is a well-established factor in psychology. As a leader engaging in interpersonal interactions with colleagues, stakeholders, and staff, the leader needs to have some appreciation of the identity of the person they are communicating with. If a person identifies themselves as an opponent, leader, boss, subordinate, or partner, they will filter your communications with them in a different manner. Similarly, if they identify as a disrupter, rebel, team worker, learner, or facilitator they will have equally varied responses.

Charles Jacobs (2009) highlights the importance of this when discussing the effectiveness of a person giving feedback to a colleague: despite best technique and verbal skills, if the person facing you has no respect or interest in your opinion, they will not hear it and will reject it. At worst, if they take it onboard, they will model it against their self-identity (persona) which will involve their unconscious reframing of your feedback to fit their own personal image. This reframing may simply (and bizarrely) *reinforce* the undesirable behaviour that you originally wanted them to change!

While this may seem to suggest that anything you do is therefore irrelevant, this is not the case. What it means is that you need to be well prepared in how clearly you communicate and assert your needs and also to have strategies to address unexpected or undesirable responses.

Take note that some people can have very disruptive approaches to interpersonal interactions and collaborations, so we need strategies to overcome the way they attempt to steer conversations. For example, some people may identify as:

- Highly manipulative in character ("its just who I am")
- Game players – individuals who take deliberate delight in toying with ideas ("how can I do it?")
- Unconsciously highly trained experts in game-playing (developed through upbringing or educational experiences) which they unwittingly live out as a hobby or pass-time alongside their work ("this is just an observation. . .")
- People who slip into a negative form of behaviour which was trained into them during their lifetime and arises under certain trigger conditions such as when under criticism or stress ("here we go again. . .")
- People whose behaviours are not necessarily pathological but can be commonly observed in many colleagues, even ourselves, on a daily basis

Unfortunately, none of these situations are helpful, but we can develop approaches which minimise their disruptions. As Manuel Smith states in his 1975 classic, dealing with manipulative behaviour is one of the key objectives of assertive skills (Smith 1975), which are outlined in the following sections.

### Strategies for personal assertive behaviour

The most important principle for developing an assertive approach to interpersonal interactions is not in-depth use of particular techniques, but first and foremost simple *persistence*. This is particularly important when addressing manipulative behaviour and is most strongly emphasised by Manuel Smith as part of his Assertiveness Training at UCLA (Smith 2000). His earlier classic book *When I Say No, I feel Guilty* (Smith 1975) is one that I readily recommend to trainees and colleagues.

The second is to provide *clarity* in your interactions and expectations of others, using clear and straightforward language. This can take some practice, using key terms, but you can readily establish these phrases in your verbal repertoire so that it becomes a natural part of your conversational style.

Third, *take ownership of your side of the conversation* so that people understand they are having a conversation with you, and they need to own their side of it, their own assertions, opinions, or reactions, and not try and deflect them onto you. Use phrases such as “I would like . . .”, “I need to . . .”, “I notice that . . .”, “When you do that, I feel . . .”. It is far less effective to discuss such issues in the third person without appearing wishy-washy or at worst patronising. So avoid phrases like “People find it upsetting if . . .”, “It would be helpful if you could . . .”, “It has been said that . . .” as these phrases will annoy people and get them defensive and will drag you into a spiralling argument around “Who? When? Where?” and represents a far from effective conversation.

Fourth, when challenging unacceptable behaviour you must *stick to above the line behaviour* yourself. You should aim to diffuse conflict situations and lower the energy of the discussion with neutral language, but always provide a clear message and be persistent with it, following the other three principles discussed earlier. ‘Above the line’ means valuing yourself and valuing the other person (and will be illustrated and explained later in Figure 9.2). Even if the other person is wrong, you are not knocking them down. If they have unreasonable demands, you push those demands back with dignity and politeness. These behaviours can of course be established within a team’s ground rules, principles, or values, and if practised will reinforce more effective conversations.

Finally, fifth, *consider acceptable compromise* as an option. Smith (1975) calls this a workable compromise. It is an outcome that suits both parties and enables you to achieve your aims. In many situations this is a perfectly good outcome, for example where we meet for coffee, or agreeing to receive information first thing in the morning instead of the night before, or choosing who joins your working party for today’s task. In other situations, a compromise might not be possible, such as in disciplinary matters, or on aspects of budgetary control. Do not compromise when you do not have the authority (e.g. budgets), when it would violate your rights, or would be unethical, or appear as a blatant imbalance in conditions stated for other colleagues.

If in doubt about the words to use, stick to the substance of the conversations, prioritising clarity over and above your personal style of speech being used. However, always maintain the dignity of both yourself and the other person to keep them receptive to the discussion.

Remember: substance – dignity – style

With these three things considered, a simple approach will help you to ensure mutual understanding above all; that *the other person 'gets' what you are saying and you 'get' what they are saying*.

### ***Influencing the context of communications – the right place and time***

Finding the right place and time to have a conversation is a critical skill in effective communication. Most interactions allow you to pick up a topic immediately, but more sensitive issues, like personal performance, giving feedback, or addressing personal issues need some discretion.

In normal day-to-day discussions location is less important, but wherever you find yourself, you need to give the person your full attention. In the same way, if you perceive that they are distracted in the current location you can invite them to talk to you elsewhere. The simplest method, if time allows is to ask them if they are OK to speak now or if they would prefer somewhere different.

When you are approached to have a conversation and you are already busy, be ready to do one of two things. Either stop what you are doing and give the person your full attention or be assertive enough to invite them to speak to you on another occasion, whether that is in ten minutes' time, or a later date. Make sure that they are clear on the rearrangement so that they do not feel pushed away to some indefinite moment in the future. Even if you are under stress, a ten second conversation to rearrange a better time is a good investment. If you brush someone off (i.e. dismiss their concerns with little thought), your behaviour will erode their trust and respect for you.

If you are going to have a difficult conversation it is usually best to have those in the morning rather than later in the day. In the morning people will be fresher, and less frenetic. However, if other circumstances make a morning discussion vulnerable to those same stresses, arrange it for another time. Do not set up conversations too long into the future, especially if you are giving a person feedback. Issues need to be fresh in your mind and in theirs for the conversation to be effective. On the other hand, if you are having a discussion about future plans, that can be delayed a little if you both agree to prepare ideas before you meet.

### ***Focus of the conversation***

Any conversation will be influenced by the personal agenda of each individual involved. This presents a challenge for you as a leader, which will vary depending on who the other person is and their power relative to yourself. Are they a subordinate, stakeholder, peer or boss? Are they a funder, or a politician, a local community leader, or a business executive? Against this you also need to consider your aims for the conversation; what outcome you want from the discussion.

A conversation at work, even a social one, is usually aimed at achieving an outcome that represents some sort of improvement. If we think about it, even passing the time of day or saying 'hello' usually has that purpose: to improve the social order, to make you seem like a nice person, to be valued by colleagues and so on. Of course, we do not think about things in this sense (that would be a bit freakish, although it is important in some particular circumstances); instead, we see it as our 'personality', or the way that things are done (the culture). The same would be true in agreeing a time and place to meet for coffee. Do we want to enjoy the moments with the other person, or just sit there and resent it as a waste of time? In the truest sense, however, these choices and interactions are ingrained as semi-automatic processes of perception, decision-making and behaviour as previously discussed in this chapter. In general, however the hope is that any conversation improves things in some way, even if there is confrontation



or a disciplinary element (which should be usually very rare occasions across any given year). It would be constructive to consider that any conversation should enable people to get to know each other better (by understanding where they are coming from) and subsequently to build-up working relationships. As Scott (2004) says ‘the conversation is the relationship’. This principle holds true in conversations during lunchtime, in the local garage or post office, in the office corridor, at a field site, or anywhere else as much as in a formal meeting.

How do you focus on the correct things in a conversation? The key for a leader is to *understand* the situation (what is going on in the system) and then to *influence* the other person to enable them to make an improvement.

At the end of the discussion, you need to *summarise* what has been agreed. This allows you to mentally check you have achieved what you set out to discuss. It is often useful to confirm this summary in a brief note to the person (e.g. on email) after the discussion.

If the conversation breaks down and emotions overtake the discussion, you will need to agree to stop the discussion for the moment, but also agree meet to revisit the issue at another time when emotions have eased and ‘the dust has settled’.

### *Listening skills*

To understand the skill of listening it is worth unpicking the meaning of the word ‘listen’. My valued colleague Jamie Copsey, an experienced training professional, informs me that the etymology of the word listen is derived from two words in Saxon English and Norse. In essence, to listen means “to sit on the edge of your seat in anticipation of what the other person is about to say”.

Listening involves three elements:

- (i) **Attention** which includes having the correct posture (remember the ‘edge of your seat’), establishing good eye contact, ensuring your body posture is turned towards the speaker. You must have your mind clear of inner thoughts (or your anticipation of what you will be saying) so that you are ready to take in the information from the other person. This is helped by being non-judgemental about what the person says, thereby avoiding any inner debate.
- (ii) **Following** the discussion by using non-verbal affirmations such as nodding, maintaining good eye contact and non-verbal utterances (e.g. uh-hu), to indicate you are *there* with them.
- (iii) **Reflection** and summarising which includes your use of *paraphrasing*, such as “So, you are saying that . . .” or “Did I get it correctly that you are . . . ?” and *mirroring*, which involves restating back what you have heard, using the same words as the speaker. These techniques allow the other person to restate any issue which they feel you have not understood. Sometimes, you might want to make *reflective observations* on the person’s demeanour, such as “From the tone of your voice, I wonder if you are feeling xxx?” or “You seem a bit agitated; is that how you are feeling?”. Finally, summarising allows you to rephrase the points made by the other person at convenient transition points “So, as I understand it you are saying . . . Have I missed anything?” which acts as a useful milestone in the conversation.

Listening allows you to understand the situation and context. It enables you to clarify any points of uncertainty and to overcome assumptions. As Stephen Covey (1989) succinctly puts it, “seek first to understand”. As a leader, your obvious active listening is an important indicator to others that you want to engage in dialogue and that you respect what they are saying. If this is matched with authentic consideration of their views, it becomes a powerful cocktail.

Every leader must remember that listening is a skill which enables you to influence others, whether they are subordinates, bosses, peers or external stakeholders.

### The verbal assertiveness/responsiveness scale

Verbal skills involve two elements: the level of verbal assertion and the techniques of assertion (Smith 1975, 2000). It is important to understand levels of assertion to see how both verbal and non-verbal skills fuel the interaction with another person, either positively or negatively. The level of assertion relates to how strongly a particular message is communicated.

Techniques of assertion allow you to deal with manipulative, negative or unconstructive behaviour by the other party (or their positive behaviours if you are in a more constructive discussion!). Interpersonal behaviours run on a *continuum* and in any interpersonal interaction we have choices about how we assert ourselves or respond to others (D. Williams, personal communication). A person is very unlikely to be always assertive or always unassertive or always aggressive. We flip between these depending on circumstances. However, if we know what is happening, we can start to make personal choices in how we behave and this will enable us to become more effective leaders, co-workers, friends or family members.

The best way of illustrating levels of assertion is to consider the continuum represented in Figure 9.2. In this model, which has been used very successfully to illustrate these ideas in educational workshops, we can consider all interactions, including effective and ineffective interactions. It can be helpful to remember the range of assertive (and non-assertive behaviours) as four scale points in each quadrant of behaviour (J. Barratt, personal communication). Note that behaviour at the low or high extremes runs into the adjacent quadrant, so persistent high control and negative outcomes (Assertive level 4) if always applied will start to feel like aggression. Similarly, ongoing 'changing behaviour' (Responsive level 4) will soon feel like you are simply *accommodating* (passive) and others will also see you that way!

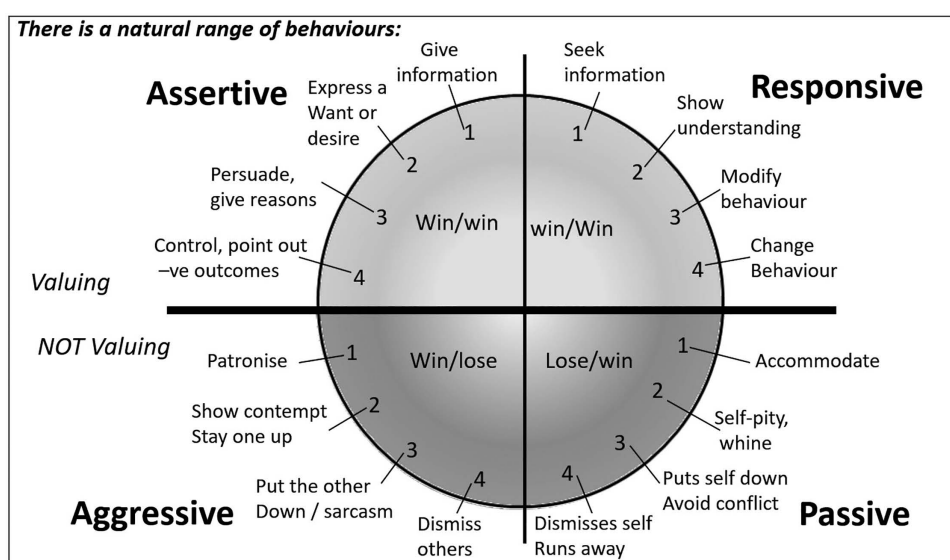


Figure 9.2 The assertiveness 'wheel': a continuum of behaviours for influencing (left) or being influenced (right). Positive behaviours sit above the line (top half) and negative below (bottom).

### ***Levels of assertion***

*Assertion* is the behaviour where you are positively shaping and influencing the other person.

- Give information – simple disclosure. For example, “Can we meet at 4pm?”.
- Express a want or desire, emphasises your needs. “I would like us to meet at 4pm”.
- Persuade and give reasons stressing importance “. . . so we have time before the end of the day”.
- Control/point out negative outcomes “. . . or you will not have data for tomorrow’s presentation”.

Clearly, you can add extra levels of emphasis to increase the assertion of the point being made. For example, you could add a negative outcome in this example “. . . and it would undermine your ability to influence the funders for an extension”.

Repeated, highly assertive behaviour focusing on negative outcomes or controls soon becomes perceived by others as aggressive. Always seek to use the full range of assertive levels but adapt your level to the context of the situation that you encounter.

### ***Levels of responsiveness***

Being *responsive* is about a willingness to help but not at a cost that would damage you in some way. You can give some ground to meet the other person’s need, but there is a trade-off. You have the opportunity to assert your needs in this negotiation, so the conversation often also involves you asserting your requirements. A simple ‘no’ response to a request is, of course, level 1 assertion.

- Seek information by simply asking questions to gain understanding, for example “When do you need it?”
- Show understanding by explicitly stating, for example “I realise that having it today is important”.
- Modifying behaviour seeks *compromise* to preserve your needs: “can I send it tomorrow instead?”
- Change behaviour is complying with the request, for example “Yes I will. You can have it by the end of today”.

Be aware that if you are seen as a person who always says ‘yes’ (‘change behaviour’), you risk becoming the ‘go to’ person, and you might always be expected by others to do the extra things. This means it has become an accommodating behaviour, which is passive and self-defeating (see below).

### ***Levels of aggression***

Clearly, *aggressive* behaviours are negative and unhelpful, even if some insist that they ‘have their place’ or ‘keep the troops in line’. Even if you get people to comply, they will eventually undermine you, rebel, stop cooperating, or run away. None of these responses deliver high performance. From your own point of view, does being aggressive create a good reputation? No. Be ready to recognise aggressive behaviour, challenge it, and give people clear feedback on how to change their approach. Increasing levels of aggression include:

- Patronising the other person, expressing fake interest or only secondary interest in the person
- Showing contempt, belittling the other person, or downplaying their achievements

- Sarcasm and ‘putting the other person down’ and deliberately demeaning them
- Shouting and abusive language and dismissing others and aggressive or threatening behaviour

Extremely aggressive people end up with nowhere to go other than to sabotage the operation or run away; the classic ‘passive aggressive’ approach of popular culture, veering into the passive quadrant. Remember all below-the-line behaviour is self-defeating. It hurts you in the end. I have seen more than one aggressive person end up unable to work with colleagues or other stakeholders (who shun them or refuse to engage with projects), so effectively become redundant in their organisation, resulting in them leaving, and, frankly, not being missed. Life is too short for this kind of outcome.

### ***Levels of passiveness***

*Passiveness* is the final quadrant and is the space where people are the ‘doormat’ of the team. They moan and whine but do nothing to improve the situation. This is bad for their mental health, well-being, social standing, and a waste of time for everyone who encounters them.

- Accommodating
- Self-pity – moaning
- Puts self down/avoid conflict
- Dismisses self/running away

At worst, passive people fall into the same sabotage behaviours as the isolated aggressive person. I have encountered this indirectly on a few rare occasions, and it is a very sad situation, particularly where it is compounded by anxiety. A facility being deliberately set on fire when everyone was away is one extreme example which I encountered many decades ago; an extreme behaviour which indirectly affects others but which borders on aggression (the interface at the bottom of the circle on Figure 9.2). We have a term in common use for this type of behaviour: *passive aggression*.

There is a way out from passive behaviour, through careful coaching of the person to help them to make good choices, to learn to value themselves better, and to understand how to work constructively with other people.

### **Verbal assertive techniques**

Clearly, the assertiveness scale offers a range of broad statement types which can help you develop a natural off-the-cuff narrative that embeds assertive values into what you say and how you go about conversations. This is a very useful skill set to acquire. In addition, there are a number of tried-and-tested verbal techniques which can help you to maintain that assertive stance (i.e. valuing yourself and valuing the other person) even under extreme conditions.

Manuel Smith’s framework (Smith 1975, 2000) is one of the most straightforward and powerful sets of descriptors for learning assertive dialogue. He includes a number of techniques which can be practised and applied to develop as elements that become part of natural conversation for a well-trained individual. His book *When I say No, I feel Guilty* remains as relevant today as when it was published half a century ago, so is well worth a read, and I regularly recommend that people buy themselves a copy. I outline the main techniques which he introduced as follows:

**Persistence** – the most important skill which you assert with calm repetition – he terms this ‘Broken Record’ (as in an old gramophone record that is scratched and kicks back the same phrase

again and again). This process makes sure you do not need to rely on rehearsed answers or to raise your game before a difficult encounter (e.g. “my work contribution deserves me a pay rise”)

**Fogging** – allows you to mentally accept manipulative criticism by allowing you to remain judge of whether that criticism is of value or not. This prevents you from becoming defensive or being made anxious by criticism (which is usually the motive behind the other person’s comments). Fogging involves short remarks that do not feed the conversation: “That’s true”, “Sure”, “I’d say so”, “I hope so”, “That was dumb of me”, “I am sure you are right”. These comments put the other person off track and less inclined to pursue a manipulative line of comments or questions.

**Free information** – recognising simple information or cues given by someone else that helps build a relational approach to that person, for example the other person may say “I found that meeting tough!” which would prompt you to say something like: “Oh yes? What aspects were difficult for you?”, and the conversation can develop. You get much more information by using free information than by missing it, such as if you just said: “Oh yes, sure” or “Sure, so did I”.

**Negative assertion** – involves you accepting your own errors or faults by agreeing with heavy criticism. Like fogging, this allows you to avoid having to be defensive or needing to deny anything but also reduces the level of anger or criticism coming from the other person. An example might be “Yes a did make a goofy joke at the start of my presentation, didn’t I?” – you are not compelled to agree that was a bad thing, but it will deflect the other person from picking up the point again. It is like hitting a baseball or a cricket ball out of the ground, and you can get ready for the next one! Such as, “Yes, I suppose my shirt is a bit scruffy!”, and then “Yes, pink trousers do clash with my socks!”. If you do not take these to heart the other person will quite quickly give up making the criticisms – after all what is the point – they will eventually look like a fool themselves!

**Negative enquiry** – involves you actively prompting criticism to use or exhaust otherwise manipulative criticism. This has the advantage of forcing the other person to be more assertive rather than aggressive towards you. This is important in developing mature relationships with others. For example, in a team, a boss, a close working partner, or indeed with family members.

**Self-disclosure** – this enables you to share things, either positive or negative, which are important in developing mature relationships with others. For example, “You know folks, I find I am really grumpy on Mondays. It is best to avoid asking me complicated questions before 9:30 am”. Or perhaps “I really value getting out into field locations with team members, so if anyone is going anywhere new and wants to have me join them to make me aware of new challenges, please check my schedule”. From a positive point of view, making people aware of these unknowns can reduce the frustration or guilt caused by interactions that clash with or do not meet those needs and preferences. If you are frightened of snakes, it might be good to tell the team before you go into the field! Self-disclosure is important when working with individuals and teams (see ‘Johari Window’ in Chapter 7).

**Workable compromise** – Smith (1975) is very clear that any matter that compromises your self-worth is *not* to be compromised upon. However, in many other aspects, using assertive skills to achieve a workable compromise, or a ‘WIN-WIN’ outcome, using Stephen Covey’s term (Covey 1989) is useful. In essence, constructive, collaborative outcomes between human beings are usually this sort of workable compromise. The key thing is to remember – do not allow your rights to be violated.

Manuel Smith’s books present a whole range of situations and conversations which enable the reader to explore how these techniques can be combined and utilised for more effective

conversations. If you seek to develop your assertive skills further, then exploring the topic in more detail in Smith's (1975, 2000) publications or examining more recent work such as Steve Peter's book *The Chimp Paradox* (Peters 2012) would be useful. Alternatively, getting involved in a training workshop led by an experienced facilitator will enable you to practise the skills in action. This type of personal development is a worthwhile investment of time. However, it is also possible to simply practise at work day to day, especially if you seek feedback from trusted colleagues. You will be surprised at how quickly you can hone your skills and get into much more effective habits in all of your interpersonal interactions with other people. Remember to stick above the line!

### **Difficult conversations**

Inevitably, situations arise where the other party has opposing views to yourself (or the organisation which you represent). More difficult than that are some of the issues which arise in field teams that work in remote locations together, sometimes for prolonged periods, and often in shared facilities where the cross over between work and social time, team time, and private time become blurred. On some occasions, you may need to address a personal topic with someone on an issue that frankly we would rather not even talk about in polite company. I have encountered team-based issues of personal hygiene, questionable ethics, unwanted sexualised advances, unnerving behaviour (including harassment), inadvertent offence being caused, foul language, bullying, excessive alcohol consumption, gender discrimination, and racial slurs. These are not what we want to spend time addressing (since we hope people can be responsible adults), but the issues do arise.

It would be easy to go through life in our own bubble, following our own assumptions and preferences, and to an extent, most of us do this. We tend to associate with like-minded professionals more than those who challenge us, we follow methods which make sense to us, or our scientific paradigms, more than innovating or using skills from other disciplines.

Susan Scott describes seven principles to pull us out of this complacency which she covers in the book *Fierce Conversations* (Scott 2004). The term 'Fierce' is a misnomer, as Scott means we utilise emotional capital and connect with people in a genuine way (so does *not* mean be aggressive!).

- (1) Get out of the comfort zone – have courage to 'interrogate reality'. Find out what is going on, what is important, what is a challenge, what really needs improving.
- (2) Have real conversations on real topics of importance. Get into the issues, rather than more comfortable topics which we can enjoy in polite company.
- (3) Be present, here in the moment and nowhere else – address things at the point in time, and dwell less on analysis of the past.
- (4) Tackle your toughest challenge today – do not avoid it or postpone it, or you will end up carrying around a burden in your mind.
- (5) Obey your instincts – an important aspect in reading other people's reactions during conversations – about you being attentive to the situation informant of you.
- (6) Take responsibility for turbulence left after you finish the conversation. If you are direct, clear, and deal with the present (neither conflating or downplaying them), then people can process the issues. If people are left in emotional turmoil, it will be unhelpful.
- (7) Use silence and allow time into the conversation. Scott says 'let silence do the heavy lifting' meaning that reflection and honest sharing can come out of an unhurried conversation. Give space for silence just as a presenter uses dramatic pauses to get a point across.

Clearly, these points are about leadership responsibility, but engagement with reality and being open to dissonance and assertively addressing conversations all resonate with decent leadership and management theory. Beyond the points that Scott (2004) makes, as a leader wanting to develop connections with your team, even under difficult issues, you need a start point. Be clear on your fundamentals as a leader (your ethos and ways of working). Be clear on your expectations – the values, behaviour, and standards that you expect as a leader. Be clear on how you want to understand and continually learn about what is going on (work, the world, and more). If you are leading a field team that live together, the expectations placed on the team should include aspects relating to non-work time. You can justify the sharing of views and agreement on these expectations on the basis of health and safety, team harmony, and use of resources. In international teams working in a country with a different culture, inevitable cultural clashes in expectations or behavioural norms will arise (e.g. the role of women). You need to be in a position to address these issues.

Where difficult issues arise, you need to get into constructive conversations.

- Address the issue at hand. ‘Grasping the nettle’ is uncomfortable but gets issues in the open.
- Provide clarity – do not ‘beat about the bush’ – get to the point.
- Call out the area of difficulty – be specific or encourage the other person to share it.
- Explore and understand the issues and needs.
- Explain why the difficulty occurs – describe consequences of the conflict or problem.
- Identify a way forward – what would make a difference?
- Seek what the other person can commit to undertake.
- Get the person to summarise the agreed-upon actions.

The aim of addressing difficulties that occur is to address them before they become a point of conflict. The better ways that individuals in your team, and the team collectively, can be frank, open, and honest and have good conversations themselves, the less chance there is for problems to fester and conflict to arise. Managers can make a mistake of glossing over issues or minimising them only for the problems to conflate with other issues to generate irreconcilable differences in the team. It is better, and healthier, to work with dissonance and debate than later rebellion and civil war!

### **Dealing with conflict**

If faced with conflict you can choose to put up with it or do something about it (in other words, challenge it). Clearly, as a leader who wishes to shape the culture of your team and their workplace, you want to be able to challenge people working in your team to play their part.

As mentioned previously, if you want to sort out a problem with someone, pick earlier in the day rather than later, since people are likely to be more relaxed. You have options to deal with conflict reactively or proactively. You can also deal with it in front of others or one-to-one. Clearly, one-to-one interactions preserve more dignity (for both points of view) and avoid game-playing or having the person ‘play to the crowd’, which some game players enjoy. If you need to protect yourself from accusations of bullying, have the conversation in a space where another trustworthy person is present who is less likely to become ‘the crowd’. In the most extreme situations, get a third party to sit in as an observer for the benefit of the other person as well as yourself.

If a situation gets emotionally heightened, remember that if someone is aggressive, strangely it makes sense to them at the time, either driven by their self-identity or a feeling that they are

under attack. Aim to lower energy levels at the start of the meeting to reduce this possibility. Get people to sit down, make sure the room is not too hot, nor a ‘goldfish bowl’ where outsiders can be spectators.

Start, as leader, by taking ownership of the problem

Hey Bill, I am really having difficulty with . . . I would really like to talk about how we can work together in a more productive way . . . because I am not happy with how it is working at the moment . . . what I can do differently . . . so we can identify what each of us can do to work more effectively.

### ***Managing your emotions***

The human brain works on a number of levels, with a range of neurological processes functioning at any one time. Steve Peter’s book *The Chimp Paradox* (Peters 2012) describes these processes in detail, and another familiar analogy for how we manage ourselves is the “elephant and the rider” (Heath & Heath 2010). Essentially, our emotional brain centres run much faster and stronger than our rational centres. Also, we have a computational centre which is the fastest centre and can be programmed to operate almost instinctively, such as when we think ‘what is 2+2?’. The answer for most of us seems to appear automatically ‘4’! However, for most human interactions it is the speedy/strong emotional centre which we are concerned about as it can get in a rage (“the chimp” for Peters, or “the elephant” for the Heath brothers) and emotions make our behaviour veer off course! We need to engage the rational side of us (the rider) to take control. However, we also need to sooth and steer the elephant. This is done by training ourselves and messaging our minds to keep control in potential situations of stress.

**Bad ideas or uncomfortable feedback is just information.** If you expect people to make silly or useless ideas which will frustrate or disappoint you (and make you angry) you need to re-programme yourself to *consider these suggestions as information*. It may be good or bad information, but that is all it is. Nothing to get heated about.

**Asking for ideas does not mean you accept them.** Remember that if you want to respond to criticism made by another person about you, rather than be defensive, in your discussion offer “What can I do better to . . . ?” or “What am I doing that causes you difficulty?”, it is again just about seeking information. You are not agreeing to give anything up, nor are you admitting that you are the source of the problem.

For example, if a person makes the following statement about you:

You need to show less favouritism to the female members of the team

and you take it to heart, it is only likely to make the discussion difficult and unproductive.

You are better responding with “What is it that suggests to you that I am showing favouritism?”

**Overcome points of conflict.** Essentially, what you want from this type of discussion is a clear exchange of expectations and the establishment of some sound ground rules for working together. If all the points of conflict and disagreement are laid out, it becomes possible to find points of common ground.

If any points are intractable, you have to either assert your values on the situation or break the discussion. In the worst situation, if you do not have power in the relationship, you need to walk away from it as it will be a waste of time and energy to continue any further.



## **Negotiation**

Negotiation involves two parties who are looking to achieve an outcome, which both can accept, and often involves a situation where a particularly stylised set of interactions occur. Negotiation can be fraught with power dynamics, mistrust, win/lose behaviours, and dissatisfaction. A number of people have sought to tackle the subject of negotiation in a conservation setting (Bonar 2007, pp. 85–100). I have also run training on the topic with people from several different sectors, including wildlife conservation, but I am particularly indebted to Jamie Copsey for his experience and input translated into these sessions, which is reflected in this section.

In negotiations people may take a ‘hard’ position, with essentially unmovable requirements, such as a lowest possible price, whilst other people may take a ‘soft’ approach, where they flex to the other person’s needs. Someone who achieves a hard outcome may feel satisfied whilst someone who negotiates softly, allowing the other to get their way, may feel hard done by. Alternatively, two negotiators taking a hard position may either never agree, or compromise so that neither feels satisfied. Two soft negotiators may both give away so much that they also may not collectively achieve a useful outcome. If a soft negotiation ends with agreement to an unsafe, unsustainable, or unrealistic outcome, then again, no one wins. Being ‘nice’ is not the answer!

Clearly, the dimensions of hard and soft positions are not the limits of negotiation. A person sticking to a hard position is focused on an outcome but cares little about the effect on the other person which could undermine trust in future interactions. In contrast, the soft negotiator may take such an approach because they do not want the other person to feel bad towards them or for the relationship to be affected by the particular outcome that is agreed.

We should be aiming for negotiations that produce wise agreements, in a timely manner and which don’t harm the working relationship. In the best possible case, negotiation should ideally bring people closer together, the essence of effective partnership. The first step is understanding what you want to achieve, formed into a statement. However, the mindset which you adopt will drive towards either a hard/soft position (which will produce a win/lose outcome) or, better, a needs-based perspective which seeks a win/win outcome.

### ***Limitations of taking a ‘position’***

Let’s take an example of a livestock farmer going into a discussion with the forest department who runs the national park near his farm. The farmer suffers losses of cattle due to lion predation. He might take the following view:

The Forest department must put up a fence to stop lions leaving the park and killing my livestock.

This statement places the expectation on someone else (the forest department), indicating what they should do (put up a fence), and only giving that one option to resolve the issue. Immediately, the farmer is presenting one outcome which he requires. This sort of statement is likely to push the other stakeholder (the forest department) into a corner and encourage them to respond with something equally positional, such as, “Let’s start with *you* stopping your livestock wandering around freely – you’re the ones who should put up a fence!”

Such positional statements are going to waste time and effort as well as potentially ending up with no decision or a decision which is not well thought through.

Positions become more entrenched as each person protects their interests, making themselves even more closely identified with the viewpoint, and the chances of backing down less likely;

letting go of it could be quite embarrassing. Worse than that, the discussion shifts from the issue at hand (livestock losses) towards the individual trying to ‘save face’ and maintain reputation. Less and less attention is given to what the different parties actually *need* or any of their underlying concerns. This tends to extend negotiations over time or encourage people to deliberately set unrealistic expectations at the outset to allow expected negotiation downwards. With multiple parties playing the same game this can lengthen the negotiation process significantly.

‘Positional’ negotiations of this type often see relationships suffer, as underlying concerns are not addressed, deception may occur, or a participant may try to apply force to get their way. This can be hugely damaging as organisational or individual relationships are broken and share of resources, data, ideas, and effort can cease. In some situations, one side may give in to the other to keep the peace. When the issue is not important then such ‘accommodation’ is fine. However, where the decisions matter and will impact on all concerned, this can result in imperfect decisions, and the side that ‘gave in’ feels rather used and unsatisfied, reducing their commitment.

### *A constructive shift towards discussing needs*

Position statements focus on what you think someone else should do. There is usually only one option (i.e. whatever they think the other person should do), and it usually results in a win/lose or even a lose/lose outcome. In a workshop involving a zoo and a field-based organisation, you could imagine one position statement being that the animals in captivity or in the wild must stay where they are, leading to a counterargument from the other stakeholders. In contrast, if we can get to the underlying concern, or need, (such as concern over disease transmission), then there are multiple solutions to meet this practical need which can nevertheless result in all stakeholders being able to meet their own differing concerns.

### *Principled negotiation*

In their book *Getting to Yes*, Fisher et al. (1991) describe a more effective method which they label as *principled negotiation*, which is summarised into four key elements:

- (1) Move people from stating positions to *revealing their needs*
- (2) Separate people from the problem
- (3) Develop mutually beneficial options, and
- (4) Focus on objective criteria

One aspect of moving people on from positions is to allow you to consider the world through their eyes. It has been said that ‘perception is all that there is’, but if two people have completely different perspectives, we need to overcome this mismatch by building shared understanding. Perceived reality may be very different from the truth, but it will influence someone’s perspective and therefore what they expect from the other person. This is a practical issue. To address this, try to work out how the person thinks or feels about the issue at hand.

Fisher et al. (1991) suggest additional approaches to dealing with the problem of perception. The following mnemonic L-I-S-T-E-N is adapted from their summary:

- **Listen** to other’s needs. Get behind their initial position to identify underlying issues by:
  - asking why;
  - asking for examples;

- asking other clarifying questions;
- for example, accepting that a farmer needs to prevent his or her livestock from being eaten is easier than accepting that you, as a national parks representative need to put up a fence.
- **Imagine** yourself in the other person's shoes. Consider the situation from their perspective and empathise with their situation. Don't assume the worst! It is too easy to imagine that your 'opponent' is trying to do what you fear. This sort of thinking gets in the way of true understanding. Instead, try to resist the temptation to assume bad intentions on their part.
- **Suppress** the desire to blame the person for the problem. Blame is likely to make them defensive and potentially go on the attack. Train yourself to assume that the person will have good reasons for feeling the way they do or for adopting their particular position.
- **Turnaround** negative expectations and **surprise** them with your response. They may anticipate a resistant, hostile stance from you. Instead, focus on positive aspects in what they suggest.
- **Explain** your own perspective and encourage discussion of both or all perspectives. Encourage them to listen to yours, since this will enable you both to better understand each other's underlying needs and concerns and potentially find common ground.
- **Negotiate** potential options through open invitation to your opponent to suggest ways to collectively resolve differences. This can help them feel included in shaping the outcome. Encourage everyone's positive engagement with the process. This helps to find solutions that meet your respective needs *and* enables everyone to maintain self-image and integrity.

Principled negotiation encourages objectivity for parties seeking a best way forward, drawing, where possible, on data to back up the decision. In the brief example mentioned here, comparing which non-lethal predator avoidance techniques are most effective in reducing livestock kills would be an example to try and address the underlying concerns or needs of stakeholders involved (see group decision-making in Chapter 10). Once needs and interests have been identified as agreed requirements, you need to identify objective criteria on which to choose between different courses of action. This enables the parties to explore shared decision-making rather than adversarial proposal-and-acceptance/rejection. In this way, the decision-making focus shifts from attacking the people involved to tackling the problem.

This principled negotiation process focuses the interaction on the decision at hand and deliberately steps clear of the relationship between partners. It is about focusing on the work rather than on the people or relational issues. This separation may seem to be an impersonal approach for people of some societies where interdependence between neighbours is closely valued. Negotiations in those societies may require additional earlier general discussions and relationship-building before the negotiation phase: building trust first rather than tackling the problem head-on from minute one.

### **Cultural differences in the work context**

At first glance, a number of approaches suggested here appear to resonate well with cultures observed in 'western' society, in which the individual carries a mindset of being able to make choices and decisions. This perspective is not shared by all cultures of course, and collective cultures or close social identity with one's community are alternative modes of behavioural norms. In many Western settings, where individualism supersedes collectivism, processes of conflict resolution, negotiation, or problem-solving are somewhat (although not always) easy to access. Individuals feel freer to decide with whom they work and how they work and may

choose to trade-off relationships for the benefit of work progress in the short term, without being personally conflicted. If people from many Western cultures don't like a situation, they feel entitled to leave, regardless of the impact on the relationship, since their personal investment in the relationship is relatively limited, compared to the identity valued by some other cultures.

### ***Developing social connections across cultures***

In essence, separating the relationship from the substance of the dispute in a structured and relatively efficient way may be the most effective response but is anathema to some traditional cultures. Many cultures value the social aspect of negotiations, including in the commercial world, particularly the French, Spanish, Latin American, and Japanese (Lewis 1996), and to a lesser extent Germans and Swiss. It is largely more people from the United States, the UK, Scandinavia, and Australia who prefer the pragmatic 'let's get down to business' approach. Leaders from those latter national cultures (or who have been educated in those countries) need to consider the social aspect more consciously when working with others. Time taken to allow people to engage socially, and to collectively identify with the needs and issues at hand, enables the establishment of a shared basis for discussion which is important.

Ultimately, in managing conflict aim to *address the problem not the other person* but never forget that our psyche is a bundle of identity, preferences, and norms; our perspectives are tied up with how we see ourselves. We need to be humble in our interactions with others, sensitive to each other's values, cognisant of our self-image, and a need for people to maintain dignity and self-respect, regardless of the outcome. If we are from a British or French background (and unconsciously prone to a colonial perspective in discussions), then make efforts to listen rather than dominate the discussion. If from the United States, avoid rushing the discussion too much, and if German, then keep a lighter touch on protocol and procedure. There are many cultural stereotypes summarised by Richard Lewis and being self-aware of where our own culture fits when working with people of other cultures is useful (Lewis 1996). Compromise can be easier for people from some cultures (e.g. the United States, the UK, Scandinavia) than it is for people from other cultures (e.g. French) since some might consider 'give and take' as wheeler-dealing and therefore as potentially underhand or a form of crude horse-trading rather than logical decision-making (Lewis 1996).

### ***Get familiar with local or transnational culture***

There are many variables to consider when working with people in international or in-country settings where cultures differ. This is why you need to seek to understand and get familiar with the local culture and meet the people. Moreover, it underlines the importance of a 'relational' or relationship-building approach being so useful in conservation. Building appropriate relationships and developing familiarity and trust enables the development of *partnerships*. A partnership mindset will enable the constructive approach to principled negotiation and decision-making described here. Avoid a positional view of the world (hard soft, give/take) and instead make efforts to seek and understand the needs of others. This gives us greater insight and ability to consider new, shared options. Working with people's needs and concerns is more constructive than achieving an outcome. Explain your own perspective and be open to negotiate the best resolution, where possible drawing on objective criteria and information to support your shared reasoning. In international teams you need to develop a team dynamic and recognise that teams mature over time. A well-developed team will include people who have a strong identity with the group that supersedes people's differences. This is explored in Chapter 10.

## Case Box 9 Setting the tone through leader expectations in island field teams in Hawaii

The Maui Forest Bird Recovery project (MFBRP) works in remote, difficult-to-access cloud forest on the mountain tops of Maui in Hawaii. The team members need to be self-reliant, skilled, able to collect data with consistency and accuracy, and have passion and resilience to work in a challenging work environment. The team has established professional members as well as some voluntary interns from graduate schools, who provide vital extra pairs of hands as a competent extension to the core team, covering extensive geographical areas accessible only on foot or by helicopter.

Despite the remoteness of the work locations, the project team also needs to relate to the local communities who live on the island and in particular local landowners and hunting communities who are present in the natural landscapes. To overcome a 'them and us' situation which had previously been experienced in the early years of the programme during the 1990s and 2000s, the project has regular community events to maintain visibility of the work



Figure 9.3 MFBRP team members host a table at a Maui Ag Festival, a large annual public event which brings together agricultural businesses, local organisations, cultural groups, and the wider public as a community celebration.

Source: Photo credit: MFBRP

and to connect with local people. These events provide opportunity to prepare new staff, graduate interns and volunteers with knowledge of the importance and relevance of the project and the role of the scientific work that they have to do when out in the field without direct supervision (e.g. accurate data collection). As well as traditional passive staff induction briefings to introduce newcomers to the mission and objectives of the programme, the team are involved in a community outreach event in the first weekend of their employment (Figure 9.3). This requires staff to meet with local people but also gives them a genuine opportunity to hear their concerns and views and answer questions.

Clearly, an event of this type is stretching for new staff and demands that they understand the team mission and values ahead of the event. Whilst an existing colleague is always on hand at their table, being up close and personal with local people embeds new staff with the ethos of the project and gives them a sense that the relational aspects of being in an otherwise remote field-based role have importance. It also provides experience such that they are able to attend other conferences as representatives of the project (Figure 9.4). The team benefits by having new members quickly engaged with a sense of belonging and ownership for the MFBRP vision and values.



*Figure 9.4* The MFBRP crew representing the project at the annual Hawai'i Conservation Conference.

*Source:* Photo credit: MFBRP

## **Chapter 9 reflection – interpersonal skills**

Consider the following learning points to refine your interpersonal skills:

- With work issues on 95% of occasions you are better off talking about work, not the person.
- Interaction will be influenced by attention, message, context, experiences, and self-identity.
- In conversations remember persistence, clarity, ownership in what you say; keep ‘above the line’ in your verbal and non-verbal behaviour; and consider acceptable compromise.
- Effective listening involves the disciplines of attention, following, and reflection.
- Effective interactions use assertive and responsive behaviours; using different levels of assertiveness and responsiveness (Figure 9.2) provides clarity and gets the best outcomes.
- When tackling difficult conversations, find out what is going on, address the issues with your attention in the moment, tackle the problems now, assess the reactions of others, take responsibility for any turbulence following a conversation, use silence to slow things down.
- When dealing with conflict: manage your emotions, remember that bad ideas or uncomfortable feedback are just information, asking for ideas does not mean you accept them, and aim to overcome points of conflict by seeking common ground.
- In cross-cultural situations develop social links with people and get to know the local culture.

## **Exercise 9 – practising listening skills**

A key skill in listening is to absorb the information given to you without taking notes. Find an amenable colleague to have a dummy conversation or use a less critical discussion planned in your diary with a constructive colleague and practise giving them your attention.

- (1) Listen to their message.
- (2) Use mirroring to repeat back to them what they have said on a key point.
- (3) Summarise back to them a number of key points they raise.
- (4) Practise giving relevant, objective comments on their demeanour (avoid assumptions) for example, “you seem to be a bit confused by that” or “You seem disappointed, is that correct?”
- (5) Agree upon outcomes from the discussion and, if needed, decide when next to meet.

Ask the colleague to give you feedback – how the conversation went, what worked, and what was less helpful (and why). Did your questions help them to talk? Did your body language help or hinder?

Reflect on how the discussion went. Can you remember the details? Did you get your points across? Did you need to get points across (or not, in the end)? Did anything unexpected arise? Do you have clarity on the issues raised? Was active listening helpful? What will you do next time?

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# 10 Managing teams through effective conservation leadership

## Personal Perspectives – Introduction

Managing team dynamics is one of the potentially more frustrating and complex yet rewarding aspects of leadership. The expectations of team members and the leader can sometimes be in conflict without being known, and mismatches in thinking can cause aggravation, misunderstanding, and misplaced effort. If you work effectively with team members you can see the results of new approaches in the impact on their work and the overall morale of the team very quickly. The leader does need to have a grounding in sensible psychological understanding of people, but they do not need to be an expert psychologist to run a team. Instead, an effective leader is a person who puts in place the things necessary to allow people to get on with their jobs. If a leader is prepared to give up command-and-control thinking and enable the team, then they will get better results.

A good understanding of processes will allow a leader to better see how team dynamics work around the day-to-day tasks of conservation and indeed how an individual team member's needs fit within the whole. If one of their team is truly unsuited to the work that is required, this problem can be identified, and further action can be taken.

Effective teamwork is less about understanding psychology than it is about setting up a system so that the team can succeed. At the same time, the leader needs to be aware of the basics of group behaviour and the common stages of emotion and responsibility taken on by team members and their dependency on the leader and each other. There are a number of tried-and-tested models of team performance which can be learned and applied. We examine the building blocks of a team 'system' and how elements of team management can inform team development and improvement.

I am indebted to David Williams and John Barratt in particular for their sharing of many of these methods and working with me in the 1990s and 2000s, and Derek Middleton for insights into understanding core work processes. My PhD supervisor Les Porter introduced me to the concept of process management over 30 years ago, and he and John Oakland's work on process improvement has been a critical element in my own learning. However, some of the most insightful experiences have involved detailed assessment of the processes and methods used by dozens of conservation organisations which I have encountered over the years.

**Teamwork and team processes**

The value of teams in delivering organisational success is consistently supported both in practice and in research studies (Guzzo & Dickson 1996). Previously, Chapter 7 presented how leadership of people and the development of team effectiveness were core leadership competencies. Chapter 8 placed teams within the overall organisational system and explained how team processes sit alongside and interact with both the core work processes of the organisation (essentially ‘conservation work’) and the processes of development and learning of each individual worker. When we talk about ‘teamwork’ we are actually interested in team processes (how people interact in the work together), not the technical ‘task processes’ of work. So, if teamwork is an essential element of organisational success, we need to examine how those team processes can be designed and conducted to be most effective. Remember Beckhard’s (1972) observation, if team members do not work well together (and there is observable conflict or discord), the causes are far more likely to be found in the process, goals, or purpose of the team than in relationships.

The concept of ‘processes’ has been introduced throughout this book as an important way to view the work of conservation. To recap, processes are sequences of activities (work) organised to flow in a purposeful manner to produce effective output (results). Any process is defined by its purpose (Scholtes 1998), and this makes it easy to align with the organisation’s purpose. Processes very often transit across functional boundaries, and in collaborative work one’s own work outputs are handed over to the work of partner organisations; this sequence and flow is itself a process.

Individual tasks usually sit within wider processes, so when we get people to do work it is useful for them to understand where their activity fits within the overall flow (Scholtes et al. 2003). These ideas make sense with technical work but are less easily understood in the context of team interactions (‘teamwork’). Nevertheless, the same principles apply to team processes.

***Understanding the concept of ‘processes’***

The term ‘process’ has become such a common term in modern discussion that there is a tendency to assume an understanding of the concept, much in the same way we understand ‘democracy’, or ‘knowledge’, ‘quality’, ‘sustainability’, or ‘economics’ (all of which are vast and often poorly understood topics). Gaining clarity on processes is not a question of semantics but an issue of practical understanding for effective leadership (Coppin & Barratt 2002; Black 2018a). As a leader, if we understand what processes are, and how they should be managed, we open a key to high performance and accelerated improvement. In essence we can do conservation much faster, smarter, and more effectively. The reason for this acceleration in effectiveness is that processes run *across* the traditional barriers and gaps in organisations, forcing us to consider the roadblocks and inefficiencies which might otherwise remain invisible in the traditional functional organisation of work (Oakland 1989). Thinking in ‘process’ terms spans functions, disciplinary boundaries, and differing stakeholder interests. There is a natural order to this, since organisations, like ecosystems, are systemic, and systems are themselves made up of processes. Processes involve various interacting functions, just as in bodies of living organisms. Use of ‘process understanding’ to steer work in your organisation (i.e. the collection of people, procedures, equipment, data, and resources) or to steer our work in the field (species, habitats, landscapes, ecosystems), or with human communities (people, cultures, homes, farms, politics) offers a better chance of success.

### What are processes?

A process is a system of activities that serve a *purpose* in terms of an output (to meet a demand or requirement). A process is different from a task or activity. For example, a task, such as ‘cleaning a table’ will only become a process once it has this forementioned *purpose* clearly defined. Scholtes (1998) gives the analogy that if the purpose of the process is ‘to clean a table ready for surgery’, then a range of demand-related requirements become obvious, such as cleaning materials, trained staff, a method, quality, and so on.

Also, a process runs *activities in a particular sequence* which is sometimes called ‘flow’ (Seddon 2003). If the flow is incorrect the process will not perform effectively. If any activities are missing it will also fail. The activities provide the ‘value’ (required outputs) that makes the work worthwhile. As John Seddon (2003) summarises it (he assumes we are being purposeful in work), in processes we are concerned about demand, value, and flow. If none of these elements are present, we will be neither effective nor relevant in our work.

Sub-processes combine to form an overall process, processes combine to form an organisation system, organisational systems combine (with other organisations or with ecosystems or political systems or economic systems) to deliver wider systemic change. In conservation we are interested in our processes engaging with our organisational systems (which could include partnerships) and the wider ecosystems of concern to benefit biodiversity. For example, if we reintroduce a species into the wild, the reintroduction process has to fit the wider ecosystem including climatic and seasonal systems, predator–prey interactions, disease systems, habitat cycles, and so on.

### What are key features to understand and manage in a process?

Figure 10.1 summarises the key generic elements of a work process (Oakland 1989; Scholtes 1998), through which the process is managed through design and application of these elements, namely:

**Purpose** is the most important feature of a process. The purpose defines the process. Purpose is described in a short phrase: ‘to . . .’. This defines the point of the process and its requirements as described later. A process purpose should be written and kept documented by the programme team, along with other key details set out hereafter.

**Demand** is the pull on the process, essentially the *requirements for the output*. It is the measurable *requirement being placed on the process*. These requirements fit the purpose and needs of the users of the outputs. In conservation this will often relate to the needs of species and ecosystems, so ‘demand’ (which is a term we do not really use in conservation) will actually relate to things like population status, genetics, inbreeding coefficients, the number of hatchlings, habitat quality, disease resistance, reduced threat impact, and so on. Defining the measurable outcomes based upon the actual needs of the species and ecosystems of concern is extremely important if the design of the process is to be suitable and effective.

**Activities** (process steps) are the work that is being carried out; the *actions that deliver value*. This work must be designed so that it delivers the output required. The work needs to follow the procedures (methods), use the right materials, data, and equipment, and applied with the correct skills. Clearly, if the work does not help the process, it should be stopped (a lot of administration, bureaucratic checks, and reporting are non-value adding work of that type). In some cases, a procedure needs to be followed for legal compliance or safety, and although it may not add much value is a mandatory part of the activity.

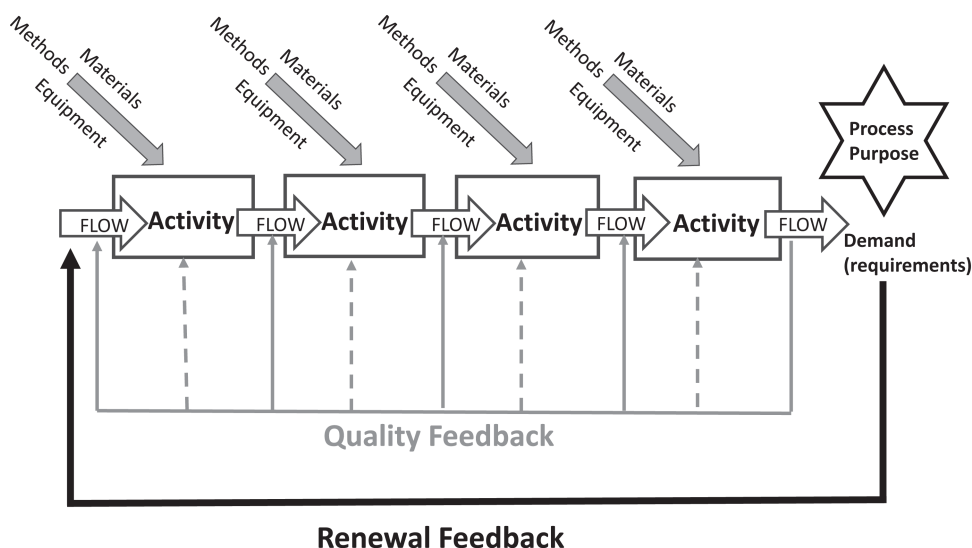


Figure 10.1 A generic process diagram showing its key features. Quality feedback informs improvement of methods, materials, or skills in each activity/sub-process, or improvement in transition between each (quality, timing, data). Renewal feedback considers everything against purpose and demand: ‘are we doing the right thing?’ (e.g. even if we are doing well, is reintroduction of captive bred animals the right thing to be doing in the programme)?

**Flow** (sequence) is the design of the process and specifically the *sequence of activities* to deliver required outputs. This is an easily ignored element in process management. Ensuring the correct flow will avoid delays or reworking/repeating activity. For example, if we do not include vaccination in a reintroduced population, and a disease outbreak occurs, then all the released animals may need to be re-caught and vaccinated after release, adding cost and inevitable losses. Drawing process flow diagrams can help to examine the logic in the sequence of activities.

**Methods** are the way we do the work, sometimes captured in written procedures or diagrams. It is important that methods are repeatable so that if errors occur (because the method is too loose and can be misinterpreted) or a problem arises with the method itself, then it can be attributed to the approach and can be redesigned. In scientific work, clear methods are important so that approaches can be reported to the scientific community or adapted for other uses. Method is really important because what you do will have an effect on results. Whilst this is obvious for physical processes such as building fences, it is also true but less obviously important for social approaches. For example, if you want to engage the support and involvement of a local community, the approach taken by the team to engage with people (the method) will have a huge influence on whether you build trust and enthusiasm and if your programme develops a positive reputation.

**Materials (including data) and equipment** are physical resources used to get work completed. It is important to review materials and equipment in relation to the demand on the process. If a process is not functioning well, it could be due to weaknesses in this area.

**People** are the brains of the process. They do the work, see and hear what is going on (which may be different to what is being measured), they diagnose and solve problems, and identify improvements. They plan and test improvements and embed any changes. They also

communicate with other people working in the process and offer that intangible element of work, the culture. People need to be nurtured and encouraged, trained and valued. They also need to be clear on the responsibilities they hold (including telling others when the process is failing or could be improved) and need to be clear on what methods and resources they should be using.

**The process ‘owner’** is an individual who has the assigned responsibility (in their role description) for the results of the process and for improving the process, through its design, resourcing, and methods and coordination, including its interaction with other processes. In many projects, the process owner might not have direct authority for all aspects of the process (which may lie in the hands of colleagues or partner organisations), however, they are expected to influence relationships with those other agencies, or if it is not possible, redesign the whole process to eliminate the problem.

**Feedback** informs improvement and includes **quality** feedback (regular metrics to see ‘how we are doing’) or less frequent **renewal** feedback (to tell us if we are ‘doing the right thing’) relative to **demand** (which in conservation will be requirements of species, ecosystems, and people). The team should take regular measures to ensure that the work is being done correctly (**quality** feedback). On occasion the process leader or team leader should review whether the process is doing what it is proposed to do, and whether it remains relevant to the purpose of the team (**renewal** feedback) to ensure the conservation work is actually helping and meeting the requirements of species, ecosystems, and people. A good example of renewal is the Black-Footed Ferret Recovery programme where leaders realised that the lack of availability of suitable habitats (including those able to hold a significant prey base of prairie dogs) was constraining the opportunities to develop sustainable populations of black-footed ferrets (*mustela nigripes*) in the wild. This led to the design of a new landowner engagement approach to identify and work with landowners and indigenous people to recover habitats ready for future ferret reintroductions.

**Sub-processes** are steps within the flow of larger processes, to be managed as separate, but interlinked, processes (in the same way that specific activities are managed within a process). It may be sensible to have separate ‘process leaders’ from within the team working at these lower levels and ensuring that their sub-process interacts correctly with other associated sub-processes. For example, a pre-release vaccination process can be carefully managed for effectiveness but also must link with the time when animals are ready (e.g. old enough) for a vaccination and also that this occurs ahead of any release process, which might be driven by seasons or weather.

### *Which processes should we focus upon?*

A leader needs to be aware of three types of processes (Black 2018b) as discussed and illustrated previously in Chapter 8:

**Task processes** – these deliver the work and will involve core conservation processes and any support processes (e.g. financial processing, training, recruitment, maintenance, and so on). Sequences of support processes (training or purchasing) and task processes (that need competent people or equipment) are vital in enabling delivery of conservation outcomes (Stebbings et al. 2016).

**Team processes** – enable people to work effectively together, being engaged in the work, giving ideas and suggestions, sharing expertise, questioning, and giving each other feedback and support. Team processes (e.g. decision-making, planning) will work around the core work

(conservation) and enable people to make the highest quality of contribution in decisions and analysis (Kouzes & Posner 2007).

**Individual processes** – each person will be on a differing developmental path, including training, learning, probation, promotion, disciplinary processes, and so on. Individual processes run at different rates, on different issues at different times, depending on the development of each person (D Middleton, personal communication).

*Documentation of processes* is a helpful way of capturing how the team needs to manage their work. This may take the form of a work manual. Clear procedures (describing methods, equipment, and materials) are needed for any routine, repeated processes, and most particularly for any technical or hazardous procedures. These need not be long documents, unless details require them to be. The essence is that they are clear and unambiguous and useful for training or retraining staff, or investigation (e.g. if the process is failing).

Documented methods need to be reviewed to ensure that updates and improvements have been incorporated and that organisational learning about the work has been captured. Version numbers with dates of last review should be an integral part of any documented procedure. Documentation should not overburden the team. If the team is too busy working with documents such that the paperwork does not reflect the reality of the work (such as people taking useful shortcuts which are never embedded into the official procedure), then the documents are a waste of time. Aim to keep documentation simple and informative.

*Process capability and performance monitoring* can be achieved with the use of systems behaviour charts (Oakland & Followell 1990), which are discussed in Chapter 6. Since processes are generally repeating activities over time, metrics of performance should also be analysed over time to see whether the process is able to deliver predictable performance or if it needs improvement. The advantage of SBC methods is that if exceptional/attributable causes are identified in the data, then investigation of process method, materials, and people will enable identification of the cause, and decisions about improvement can be considered. Also, if performance is too unpredictable, methods can be revised to reduce the variation in performance (see Chapter 6).

### **Goal setting – preparing for processes**

Effective organisational units (e.g. teams, projects, partnerships) need clarity in terms of purpose, goals, roles, processes, and behaviour (Beckhard 1972), as discussed in Chapter 7 (for conservation examples, see Black & Copsey 2018). Before understanding processes, we need to understand purpose and goals, which are essential elements in a system (Senge 1990; Meadows 2008). Goals are important in setting priorities to ensure that we do ‘the First things first’ (Covey 1989). Task processes, teams, and individuals are all likely to have particular goals. Even projects can have goals to ensure progression of activities over the lifespan of the project. As shown in Chapter 5, goals *must* be centred around programme purpose. They must be described so that they enable performance and achievement (Mager 1997).

Each team member’s individual process (their journey, development, and focus) over time is likely to diverge due to interests, capability, speed of learning, outside influences, and constraints. This means that if a goal set for an individual is likely in interpretation to diverge from the goals of other individuals, over time, space, focus, application, and quality of performance. This is why *setting individual work-related (task) goals can cause problems* including competition between team members, people working at cross purposes, and lack of communication and awareness (since people can fall into the trap that their work goals are confidential).

Individual personal goals are better focused on developmental issues, which could include learning a technical task, but often will be about personal effectiveness or training or gaining specific experience. These non-task goals do not have to be discussed in detail with the team.

A better approach for *task goals* is to set the goals for the whole team, which make the team members accountable to each other and also more likely to consider external factors and constraints. If the team is made very clear about its purpose, then team-based goals are less likely to cause goal displacement.

Team goals can also be about effective teamwork, such as using new planning tools, new decision-making approaches, keeping the facility tidy, or improving how they run team meetings.

Team goals can be discussed and formulated in team meetings. A newly formed team will need plenty of direction from their leader (recall the “forming” stage of team development in Chapter 7). For more established teams, the leader can coach the team to devise and develop its goals by considering content, feasibility, timescales, and getting to an agreed outcome.

The SMART mnemonic for setting goals (Doran 1981) was mentioned in Chapter 6 and is a useful guide for these types of discussions (summarised here). Remember all discussions on goals must be tested with the question – ‘How will this help us to achieve our purpose?’

**S – Short-term and specific.** Be clear on what needs to be achieved and keep to short-term horizons based on the species, ecosystems, or human communities you are working in.

**M – Measurable.** Metrics may be yes/no (achieved/not achieved) or numbers (species counts, poacher arrests). See results as they emerge to understand what is possible or needs improving.

**A – Achievable and agreed** with the team so that they have ownership and clarity, but stretching and **aspirational** so the team shows **ambition** to make a difference.

**R – Realistic** and open to **regular review** and, if necessary, **revision**, or **re-setting**, or **reframing** to remain **relevant** if circumstances have changed in the team or externally.

**T – Time-bound** – when you assess progress, at a time that is meaningful in the cycle of work (could be on Monday, in one week, one month, a year, ‘at completion of the survey’). A sensible approach is to monitor progress within the work, not waiting to the end of the goal period.

Once processes of work are established and data is regularly measured to see how well the work is being performed (e.g. process performance which can be monitored on a systems behaviour chart), it becomes possible to focus team goals on improvement and learning for those processes or even towards examining new areas of work (stretching the boundary of our organisation into new fields or geographic areas). This allows the capability and impact of the team to increase.

### **Team processes – practical methodologies for effective teamwork**

The systems model includes three types of process (task, team, individual). Task processes will be the main work of conservation (or for some workers, certain technical support processes like employee recruitment, financial budgeting, and so on) so task processes have a technical element, informed by science and specific professional practices which are not addressed by this book. The other two categories of process, team and individual processes, are reliant on a strong leadership element in their design and implementation, so are addressed here in Chapter 10 (for the team) and Chapter 12 (for individual leadership development in particular).

Team processes are the flow of purposeful activities central to the functioning of an effective team. They are the processes of particular concern as a team develops in its maturity through forming, storming, norming, and performing stages (Tuckman 1965) and the ways of working

which fit alongside the task work processes in Beckhard's (1972) 'Purpose, Goals, Roles, Processes, Relationships' model (see Chapter 7).

Although there are many types of team process, this chapter introduces the core team processes that can be used frequently by people at work to improve team coherence and effectiveness.

### **Team process 1 – situation assessment**

An easy mistake in managing issues at work is to apply an incorrect approach to a given situation. For example, in error one could choose to fix a problem, which is actually a simple decision or make a plan, when a problem needs solving first. This mismatch of approach to purpose arises because it is common for a series of differing issues to be combined into one situation at a given point in time. The objective of '*situation assessment*' is to break down complex or ambiguous situations into constituent, manageable elements. It is a mental 'filtering' process which helps to identify which method (decision-making, problem-solving, planning etc.) will be needed to tackle each issue.

*Situation assessment* involves a simple four-step process.

**Step 1** – Write down a list of issues that you are facing. The following questions may prove useful:

- 
- |   |  |
|---|--|
| • What problems do we face?                       | • What areas should be improved?         |
| • What opportunities exist?                       | • What decisions need to be made?        |
| • What problems have occurred?                    | • What am I dissatisfied with?           |
| • Where are we exceeding standard/expectations?   | • What am I happy with?                  |
| • Where are we not meeting standard/expectations? | • What new goals would I like to obtain? |
| • What changes are anticipated?                   | • What plans need to be implemented?     |
| • What impact will any changes have?              | • What plans do I need to protect?       |
- 

The questions will produce a wide range of topics. A helpful next step is to group them into key result areas in priority order (importance/urgency).

**Step 2** – Examine each of these topics to avoid misunderstandings and remove any ambiguities. This is done by asking yourself a series of questions:

- What do I mean?
- How does this concern me?
- What am I specifically concerned about?
- What does this involve?
- What impact does this have on me?

**Step 3** – Establish if the statement is a manageable portion or if it needs to be broken down further.

**Step 4** – Look at the list of issues and decide which combination of the other three processes you need to use. This is, in actual fact, very easy, since you ask yourself a series of questions:

**Question 1:** a) Do I know the cause? b) Do I need to know the cause?

If the answer to (a) is 'No' and to (b) is 'Yes' then use a *problem-solving process*.

**Question 2:** Do I have to make a decision here?

If the answer to question 2 is 'Yes', then use the *decision-making process*.



**Question 3:** Does this involve a plan of action which needs to be protected?

If the answer to question 3 is 'Yes', then use the *protecting plans process*.

**Question 4:** Is the plan of action very complex involving deadlines, resources, and many people?

If the answer to question 4 is 'Yes', then use *project management*.

By this stage, you have a list of issues to be dealt with, and you know which processes are to be used – in other words, you know which elements involve problems which need to be solved, which ones involve decisions to be made, and so on. An example will illustrate the idea.

### Example situation assessment

A manager is worried about one member of the team, Kim, who is causing a lot of disruption. The manager decides to use *situation assessment*. First, a fairly vague statement about Kim is written based on answering the questions:

What do I mean?

How does this concern me?

What, specifically, am I concerned about?

What does this involve?

What impact does it have on me?

And this process leads to a list of concerns:

Kim has suddenly started to behave badly. His timekeeping is poor, he is not coping with the workload, and he is upsetting the rest of the staff. In fact, three of them have threatened to leave if he carries on much longer. As far as work is concerned, I am worried that the report he is preparing for the Programmes Director will not be finished on time.

This is too much to deal with in one action; so the manager separates the issues into its major elements:

- (a) Kim has suddenly started to behave badly.
- (b) Three staff members have threatened to leave.
- (c) The report to the Programmes Director is in danger of being late.

The manager is now in a position to choose which process is needed – again, by asking questions.

**Situation (a)** *Kim has suddenly started to behave badly.*

Q. Do I know the cause? A. No.

Q. Do I need to know the cause? A. Yes.

Therefore, use a *problem-solving process*, followed by a *decision-making process*.

**Situation (b)** *Three staff members have threatened to leave.*

Q. Do I know the cause? A. Yes. So they do not need problem-solving.

Q. Do I have to make a decision? A. Yes.

Therefore use the *decision-making process*.

### **Situation (c)**

*The report to the Programmes Director is in danger of being late.*

- Q. Do I know the cause?                      A. Yes. There is no need for the problem-solving process.  
Q. Do I have to make a decision?    A. Yes.

Therefore, they use the *decision-making process*.

- Q. Does this involve a plan of action which needs to be protected?    A. Probably not.

These techniques steer our thoughts into a logical sequence the steps to follow which, in an uncoordinated way you are less likely to follow. *Situation assessment guides and speeds these mental processes.*

### **Team process 2 – decision-making**

There are many different methods for making decisions, some better suited to certain situations than others. Sometimes, a toss of a coin (random) is suitable, or a vote, or agreement by consensus. In other situations, a leader may have to make a decision with other people consulted. In different cases, a combined group decision is required. Various methods and rationale may be appropriate in different circumstances.

**Basic financial appraisal** considers whether the project will provide a return on the investment made. This can be useful in operational projects, such as a fundraising event, an ecotourism initiative, a facility which is open to the paying public, or the use of fee-paying volunteers.

- (1) Identify all costs and revenues over the lifetime of the project.
- (2) Take account of the likelihood of cost/revenue occurring.
- (3) Take account of timing of the costs and revenues.
- (4) Add up the discounted costs and revenues and identify the project with largest profit.

*Pros and cons:* it is a simple method to use but does not consider non-financial aspects.

**Cost-effectiveness analysis** looks simply at achieving an objective or outcome with the *least costs* (it does not measure benefit/value of an outcome, objective or goal). For example:

- The cheapest option for increasing a Protected Area network by 500km<sup>2</sup>.
- The cheapest way to reduce illegal offtake of mature trees by 50%.

*Pros and cons:* it is a very simple method to use but does not consider effectiveness of different options or ensure that all relevant costs are considered. It may ignore value for money, for example the cheapest additional area of land may not be the largest area or value per km<sup>2</sup> protected.

**Cost–benefit analysis** is a decision-making method based on the following simple rationale:

‘If project benefits exceed the project costs, then the project should go ahead’.

A ‘benefit’ is something that enhances well-being, and a ‘cost’ reduces well-being (for society, or for a species or for a landscape, depending on your programme purpose). Costs and benefits

are estimated in monetary terms. In theory society gains, and no one should be worse off as losers can be compensated by beneficiaries. It follows a simple six-step process.

- (1) Identify all costs and benefits over the lifetime of the project.
- (2) Put a monetary value on each cost and each benefit.
- (3) Take account of the likelihood of each cost and each benefit occurring.
- (4) Take account of the timing of each of those costs and benefits.
- (5) Total up the discounted costs and benefits. Identify projects where net benefits are greatest.
- (6) Take account of other factors such as, for example, equity in society (namely, the distribution of costs and benefits).

Decide whether to proceed with the project, or if more than one, select the project with best cost/benefit.

**Multi-criteria analysis** is a method where the relative importance of elements of a decision (criteria) use a common scale, and the relative strength of each option in meeting those criteria is scored by participants. It is important to have a clear method and involvement of others to agree weightings and scores. Multi-criteria analysis is a good method for involving the input of many people with differing perspectives. It has the advantage of not needing monetary values for all criteria being considered. It can be more challenging when comparing complex project options. However, if recorded properly, the rationale behind the decision can be clearly presented.

The purpose of the process is *the engagement of everyone in clear and transparent thinking*, so that differing views can be considered in a constructive manner and taken into account. An individual need not give up their viewpoint, and they will see how it fits with the views of others. An example 'group decision making process' using this method is presented in full here.

#### ***Group decision-making using the multi-criteria approach***

The objective of this process is to help people to make a decision together. While straightforward or individual decisions can be made mentally, group decisions need discussion with a written record. In group decision-making a simple ten-step process is used.

**Step 1. Define the decision statement** that is concise, clear, unambiguous, avoids assumptions.

The group also needs to avoid implied decisions, for example, the statement "We need to decide which new 4x4 pickup truck to buy" is loaded with preconceived decision – why buy one? Why 'new'? In this case it would be better to say:

We need to decide how to replace the project team's vehicle.

This statement allows rental, it could be used or refurbished, it could not be a pickup truck at all (e.g. might a set of motorbikes be an option?).

The step of clarification is important, since if the statement is wrong it will waste time later on.

**Step 2. Define your objectives** so that the decision may have some limits or expectations which it must meet: deadlines, budget, links to project constraints, departmental requirements, or users. Make a note of these to ensure that your final decision is aligned to these requirements.

**Step 3. Redefine each of the objectives** in terms of whether it is a 'must' (must have this achieved) or a 'want' (would be nice if . . .) as applied to the decision, as shown in this example:

**3a ‘musts’** – the absolutes that *must* be met by the final decision. Musts are go/no go objectives; the black and white requirements in the decision, so in replacing a vehicle, for example:

- It must have 4-wheel drive (off-road capability).
- It must have an engine snorkel (for crossing rivers).
- It must have a roof rack.
- It must cost under \$30,000.

At this stage revisit the needs. Are they *real* needs? For example, what if the vehicle costs \$30,177? If the answer to any need is not a black and white for a ‘must’ then relegate it to a ‘want’. Black and white factors include mandatory requirements, and those will determine project success or failure. For most decisions there will be relatively few musts.

**3b list your ‘wants’**, for example,

- We want a petrol engine (to cope with climate).
- We prefer one with a CD or mp3 player (for longer journeys).
- It should include a GPS navigation system.
- It should ideally cost under \$30,000.

**Step 4. Now weight each of the wants** (e.g. on a scale of 1–10). You could weight the most important want as ‘10’, then rate all the others in relation to the 10. Some other wants may also be 10, whilst others may be lower levels of want.

**Step 5. Identify alternatives** List all options for consideration. This may need some research. If you are buying a vehicle, it is fairly easy to pick out a list of alternatives from the various vehicles available on the market. (If you are choosing a location for reintroduction of a species, identifying alternatives may be more of a challenge.)

**Step 6. Filter out alternatives against your musts** Go through the list of MUSTS on a yes/no basis. Does alternative 1 meet each ‘must’ requirement? As soon as you find an answer ‘no’ then reject that alternative and eliminate it from all further considerations. If you are uncomfortable with its loss, consider whether the MUST you have applied really is absolute, or if it is really a want (Steps 3 to 4).

**Step 7. Compare alternatives against the WANTS by building a decision matrix** (Table 10.1)

- List the alternatives (e.g. on the left-hand side of an A4 page in landscape).
- List the series of musts in columns along the top of the page.
- Rate each alternative against the WANTS; use an arithmetic scale again, of 10 down to 1: 10 = best, and 1 = worst, doing this horizontally across the page.
- For each alternative, multiply the weight of the want against the score you have given. Add all of the wants rating together to get a final score for that alternative.

Repeat the calculation for all alternatives. In this example (Table 10.1) the highest scoring alternative (second vehicle; Oldsmobile) is considered the best option.

**Step 8. Make a tentative decision** – based on the highest scoring alternative.

**Step 9. Assess potential drawbacks of this tentative decision.** Is there anything about the situation which has not yet been taken into account? Have circumstances altered since we began this process? Have we biased any factors towards/away from this alternative?

If you are unhappy – go to the next highest scoring alternative.

**Step 10. Make the final choice.** You can now provide all your working material as the basis of justifying, recording, and reporting on the decision.

**Table 10.1** An example decision-making matrix for replacing a project vehicle. The Saab and the Daewoo are eliminated as they do not meet all the ‘musts’. The analysis of wants continues for the other alternatives. The Oldsmobile has the highest total (183) after the analysis, so that is the vehicle which is the tentative best alternative for this decision.

			<i>Weight:</i>	10	7	4	7	
	<i>Must 1</i> 4-wheel drive	<i>Must 2</i> Roof rack	<i>Must 3</i> Engine snorkel	<i>Want 1</i> Cost ~\$30,000	<i>Want 2</i> Petrol engine	<i>Want 3</i> Music system	<i>Want 4</i> SAT NAV	<i>Total</i>
<b>Saab</b>	X	✓	✓	–	–	–	–	–
<b>Oldsmobile</b>	✓	✓	✓	<b>6 = 60</b>	<b>7 = 49</b>	<b>8 = 32</b>	<b>6 = 42</b>	<b>183</b>
<b>Bravia</b>	✓	✓	✓	<b>9 = 90</b>	<b>6 = 42</b>	<b>4 = 16</b>	<b>4 = 28</b>	<b>176</b>
<b>Hummer</b>	✓	✓	✓	<b>7 = 70</b>	<b>6 = 42</b>	<b>7 = 28</b>	<b>5 = 35</b>	<b>175</b>
<b>Daewoo</b>	✓	X	✓	–	–	–	–	–

### Team process 3 – problem-solving

Many texts and training courses are available on problem-solving techniques, but several methods have stood the test of time and are briefly summarised here.

#### ‘Five Whys’

Five Whys is a useful method to get to the root cause of a problem. The technique focuses people on considering causes of problems (which can be solved) rather than simply dealing with a symptom which may resurface at another time. To use the Five Whys technique:

- (1) State the problem (either for yourself, when talking with a colleague, or in team discussion).
- (2) Ask ‘Why is this problem occurring?’ (Why number 1) write down the answer.
- (3) Ask why is this ANSWER occurring? (Why number 2) write down the answer.
- (4) Ask why this second answer is occurring (Why number 3).

Repeat this until you reach a clear root cause. Experience suggests this is usually achieved within five ‘whys’. It is a simple and easy to use technique for any team.

#### ‘Six Honest Serving Men’

The honest serving men are the simple questions of what, why, who, where, when, and how. These can be applied when considering any problem which you encounter. It enables you to frame the problem, in other words, defines what is involved in the problem and what is not in the problem. You can ask the six questions many times over, for example:

- **Who** does it involve? The evening patrol team only.
- **Who** in the evening patrol team does it involve? The people patrolling on foot only.  
And so on.
- **When** does it occur? In wet season.
- **When** in the wet season? At weekends.
- **What** time is it when it occurs? At twilight.  
And so on for the other questions what, why, where, and how.

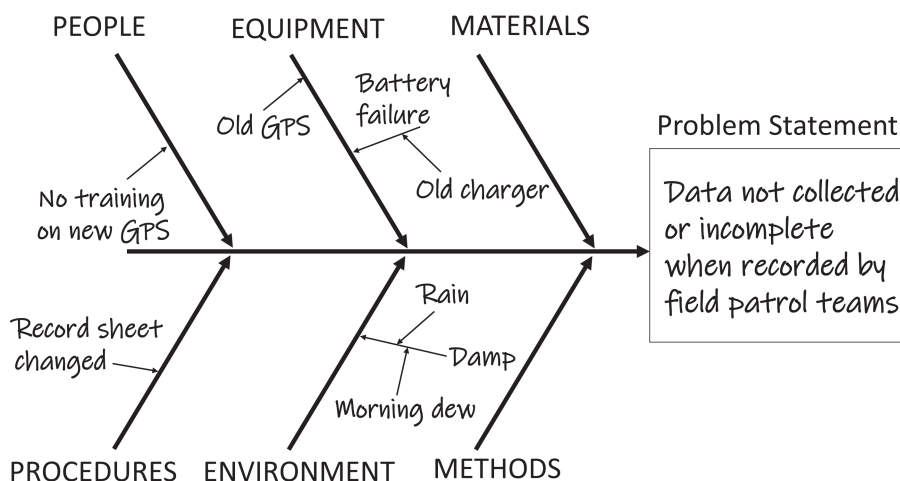
The technique may lead you to some simple investigation, or data collection, or use of another problem-solving method, as you have quickly eliminated any unnecessary avenues of enquiry.

### ***Cause and effect (Fishbone diagram)***

The Fishbone diagram is a visual technique where a group can explore many ideas to analyse a problem. It is good for flushing out problems which have *multiple causes* (this type of problem is common in conservation situations). A clear *problem statement* is defined and written down. This is helpful because everyone needs to be clear what the problem is so that there is a common understanding before the creative thinking phase of the exercise begins. The problem statement becomes the ‘head’ of the fish in your visual aid, the *fishbone diagram* (see Figure 10.2).

The steps in constructing a fishbone diagram are:

- (1) Use a large whiteboard or flip chart. Write the problem on the right-hand side (this is the *Effect*).
- (2) Determine three to six of the major cause categories (six commonly used cause categories are people, equipment, material, process, environment, and measurement: ‘P-E-M-P-E-M’,) but choose the areas which you think will need the most focus. In conservation work you might have things like staff, materials/equipment, species, landscape, local communities, methods, and so on. In most cases, it is unlikely that the diagram will use more than 4–6 categories.
- (3) Ask group members to write possible causes (of the problem) on post-it notes, then place each against the relevant cause category. Remove duplicates and batch the post-its under each category.



*Figure 10.2* Fishbone diagram. This technique, developed for commercial companies by Kaori Ishikawa, was popularised in the Japanese industrial revival of the 1970s and 1980s (Ishikawa 1986). The illustration shows a partially completed diagram, for a problem of ‘data not being recorded by field patrols’ (problem statement on the right). More ‘bones’ can be added as people share their thoughts freely and the team conversation develops.

- (4) Causes can be broken down a further level (sub-branches off the bones) by asking ‘why?’.
- (5) Continue to break down the fishbone until all of the root causes are identified. Discuss and agree preventative actions, who will be responsible, and when/how progress will be reviewed.

### **Forcefield analysis**

Another powerful method for categorising ideas to improve a problem situation is Forcefield analysis. This approach is also ideal for group problem-solving. The concept is based upon a problem or poor performance being influenced by:

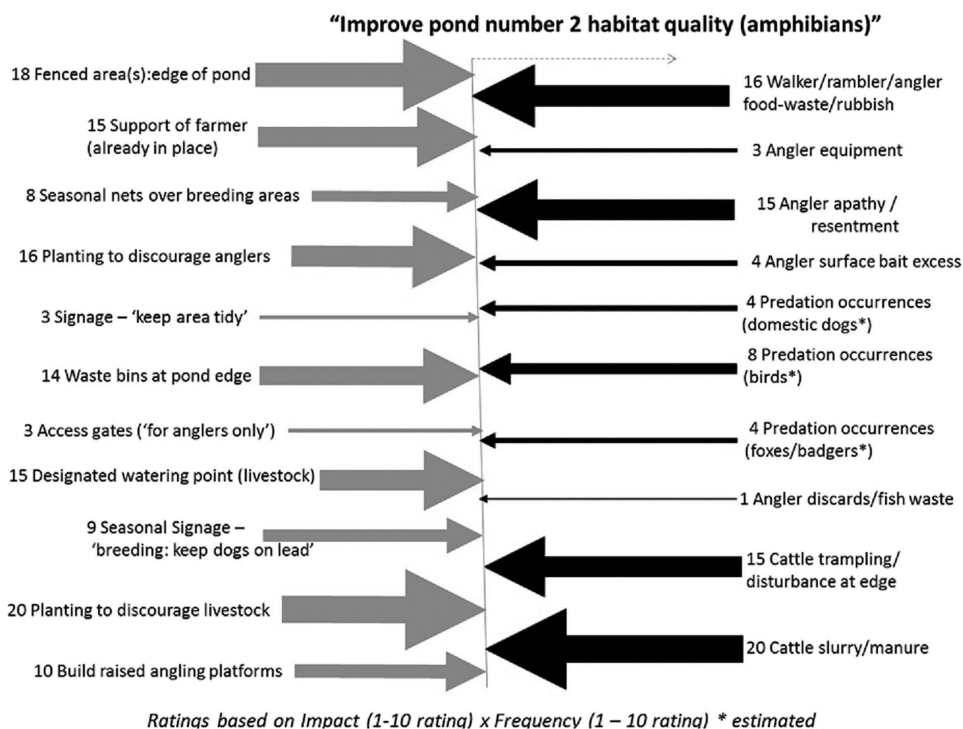
- negative, unhelpful ‘restraining forces’ (e.g. ‘threats’ encountered in conservation biology),
- or, an initiative may provide ‘driving forces’ which could positively improve the situation.

For example, the accumulation of litter in a nature reserve could be influenced by the negative force of public dropping litter or a different negative force of litter being blown into the area from a nearby municipal waste tip. Both of these negative forces make the situation worse. On the other hand, a positive driving force could be the use of volunteer litter pickers in the reserve or provision of waste bins whilst another driving force could be to erect a fence between the reserve and the municipal waste tip. When deciding which factors to act upon (as identified in your forcefield analysis), it is important to first focus efforts to *eliminate the biggest restraining forces first* wherever possible, before money is invested in mitigation. For example, with the local nature reserve, would it be possible to negotiate with the local council for the waste tip to be closed? Removing the negative force is critical; if some of those negative effects are not addressed, any investment in positive efforts would be the equivalent of pushing water uphill.

Forcefield analysis allows the team to brainstorm many differing ideas and then rate the likely impact of each and the feasibility of each, before an action plan is committed. An example is shown in Figure 10.3 for improving habitat quality for amphibians in a pond. The diagram is constructed using the following steps:

- (1) Brainstorm the driving/restraining forces (this is best done as a group activity).
- (2) Decide on a 1–5 rating for each force (discuss and agree ratings as a group).
  - 1 being a relatively weak force
  - 5 being a very strong force
- (3) Discuss and agree on your ability to affect/influence that force on a rating scale of 1–10; (1 = very little ability to influence and 10 being you can greatly influence the force).
- (4) Multiply the “force strength” by the “ability to influence” – high numbers denote “low hanging fruit”, namely those things which can be done most easily for fast results.

**Deriving solutions from forcefield analysis:** Initially, the team should examine if anglers’ rubbish waste could be reduced (e.g. by providing waste bins) and whether cattle slurry could be reduced by discouraging cattle in the area (various solutions could be considered). In the latter case a suggested positive driver in Figure 10.3 could also be a solution to the slurry problem, for example putting up a fence to stop cattle congregating near the pond. Once the major negative effects are dealt with, further improvements can be accelerated by investing in positive driving forces (such as pondside planting to discourage anglers in certain parts of the pond).



**Figure 10.3** Forcefield analysis. This example is for improvement in the quality of habitat for amphibians in a specific pond. The size of each force arrow has been calculated by the team. Improvements should initially concentrate on eliminating or reducing restraining forces (i.e. negative effects) as this will enable natural momentum from the already existing driving forces and make the change more likely to happen.

### ***Pros/cons/fixes***

Structured consideration of pros and cons is a useful analysis to support decision-making. This method allows a constructive group discussion for considering two or more options where there is a trade-off in impact and constraints and also if members of the group have differing viewpoints on which option is 'best'.

- (1) The group consider various options and draw a column (e.g. on flipchart) for each option.
  - Under each option they list the pros – the advantages of that particular option.
  - Below that they list the cons – the disadvantages of the option.
  - This list of pros and cons is repeated for each option.
  - The group take time to view the relative advantages and disadvantages of each option.
- (2) Creative problem-solving effort is applied to each option, by the group considering what *fixes* could solve the cons' in each case. No judgement on feasibility is made at this stage.
  - The fixes which are most feasible and/or cost-effective are highlighted.
  - If any fix is agreed upon to eliminate a 'con', that con is crossed out.
  - This is repeated for all options and all potential fixes.
- (3) A decision of best option is based on the fix feasibility and remaining pros and cons.



***Use more brains than one***

With any problem-solving method it is always useful to engage more brains than one. Any process which encourages collaboration will be useful. When people are creatively sharing ideas, make sure that you, as leader, avoid judging ideas and contributions (since any judgement will stifle creativity and stop people talking). A good way to ensure this openness and respect is to set clear ground rules on how everyone should contribute (and what they should avoid doing) before you start. Allow people to make ‘dumb’ suggestions. Make sure the team members are supportive of each other’s ideas before they conduct more critical analysis of feasibility, impact, and importance.

**Team process 4 – project management processes**

A range of project management methods are available to conservation project planners (see Black 2018a). Rather than overwhelm the reader with the options available, the following outline mentions some of the main concepts which should be considered when building a project plan. This plan can be a ‘manual’ plan, created with spreadsheets and documents, or could be a more sophisticated plan built using project management software. The important thing to remember is not ‘what is best practice’ but rather ‘what approaches will suit the demands and constraints faced by my project?’. If you have limited time and resources, a simple Excel-based project plan, clearly communicated (and referred to regularly and updated when needed) will be far more effective than the complex logistical frameworks and drop-down plans based on expert-group workshops or multi-stakeholder events. Although planning is clearly important, you are better placed if you spend greater effort to identify the key processes (i.e. the activities and the flow/sequence between them) needed to actually deliver the work of your programme since those work processes actually define the shape and timing of your overall plan (see CASE BOX 10).

**Basic project plan concepts** include the plan having a purpose, a series of goals, a time limit, usually a budget, and a set of defined tasks or activities, people assigned to those activities, resources, milestones (or deadlines) for each activity, and the location of each activity.

This simple what/who/where/when style of action plan is familiar and should be used on simple tasks and plans where few stakeholders are involved. It must provide clarity on the following:

- Purpose – the plan should have a reason for being enacted.
- Output – some sort of output, usually a physical or measurable outcome should be defined.
- Time constraint – a fixed start and end point based on a reasonable rationale.
- Accountability – specific people must know the responsibilities they have to deliver the plan.
- Tasks should be identified which will deliver the work.

**Gantt charts** are a type of horizontal bar chart that illustrates a project schedule. The aim of these charts (or schedules) is to visually present the list of tasks (activities) undertaken in the project over time. It is possible to see the overall time taken for the project and the longest path in the sequence of activities (i.e. dependent activities). This makes it possible to schedule or reschedule activities so that the longest path is reduced, or critical milestones are ensured (such as completing work before the end of a season). Gantt charts are very commonly used. They provide an easy-to-understand visual reference for managing projects. The Gantt chart can be built simply by hand on paper or a whiteboard or using tools such as spreadsheet software. Use of colour and annotations in simple spreadsheets can add levels of detail. More sophisticated software is also available which allows inclusion of information such as the

people responsible for tasks, resources in each task, and dependencies between tasks. It is also possible to break down large tasks into sub tasks and represent the lower-level task on the chart for clarity.

Gantt charts are useful in that key tasks can be made explicit. This makes them very useful for scheduling work. A Gantt chart is able to:

- Show all the start and finish dates of activities/elements of a project.
- Show the breakdown structure of the project.
- Can show dependencies (which stages must be completed to enable subsequent stages).
- Identify the time required for completion of each activity (duration).
- Identify the dependencies between each activity.
- If used as an ongoing reference document, show status/level of completion of each stage.

Various **supporting concepts** need to be followed when creating a Gantt chart for your project plan.

- 100% rule – the sum of sub-activities should be equal to 100% of the parent-level activity.
- Elements should be mutually exclusive (there is no overlap of work between tasks).
- Aim to plan against outcomes, not actions (so avoid prescription of method).
- Break down tasks to a sensible level of detail with measurable outputs.
- Shortest activity (~80 hours); longest activity one reporting period (e.g. a quarter).

*Limitations of Gantt charts* include the lack of space to include much detail in each task block. Also, if the project has many tasks (e.g. over 30 activities) the size of the chart becomes rather unwieldy. Dependencies between activities can make the chart rather visually cluttered. The chart only conveys time, not the size or complexity of tasks (although colour coding of tasks could assist this), nor is the intensity of effort or use of staff or resources easily displayed. Overall, it can be difficult to visualise the cost and scope of the whole project using a Gantt chart.

*Building a simple Gantt chart follows a simple process:*

- (1) List all activities: check these against budgeted resources (travel, purchasing, delivery etc.).
- (2) Ensure sub-activities are considered (including training, recruitment selection, trials).
- (3) Estimate the time required for each activity.
- (4) Put activities in order, noting any dependencies.
- (5) Chunk the activities into major themed activities.
- (6) Decide how to subdivide time (days, weeks, months).
- (7) Draw up the chart or devise one using suitable software.
- (8) Make sure that you date/time each revision to the Gantt chart to account for changes.

**Critical path analysis** is a method used to *prioritise the order of activities* to reduce the duration of the overall project timescale by establishing an optimal ‘critical path’ of dependent and independent activities. The aim of critical path analysis is to calculate the longest path in activities (i.e. including the order of dependent activities), then to schedule the activities in an order such that the longest path (i.e. proposed final project deadline) is not extended unrealistically. An overall path can be optimised, for example, by choosing to run unrelated activities in parallel to reduce overall time requirements. The stages in critical path analysis include:

- Creating a list all of the required activities
- Identifying the time required for completion of each activity (i.e. task duration)

- Identifying the dependencies between each activity (i.e. which ones need to be completed before another dependent task can be started)

**Project Evaluation and Review Technique (PERT)** is a statistical method used to optimise project scheduling. In its simplest form it can be used on smaller projects to optimise the flow of activities. Various methods for PERT analysis are available such as ‘activity on node’ and ‘activity on arrow’ diagrams. A node is, effectively, a milestone between activities.

The best way to illustrate the concept is with a simple example, shown in the ‘Activity on Arrow’ diagram in Figure 10.4. This figure shows five *nodes* (milestones), labelled 10–50 in the circles, which denote transition between tasks. Note that nodes are numbered in 10s to enable later insertion of sub-nodes if required (e.g. 25, 26, 35, 41) without having to renumber existing nodes.

In the example, the six *activities* in Figure 10.4 are shown as A, B, C, D, E, F with each activity lying on the arrows which indicate how each task is carried out between each milestone node. The activity has a set *duration (t)* in months (‘mo’ in Figure 10.4) as shown in the diagram. In this particular example, the following timelines are apparent:

- Activity B + C = 7 months duration.
- Activity A+D+F is also 7 months’ duration.
- Activity E requires 3 months, but occurs within the 4 months of D+F.

The **critical path** for the overall set of activities in this example enables project completion in seven months if activities are run in parallel as shown (even though sum of all task timing is  $(3+4+3+1+3+3=17)$  months). In Figure 10.4, as it stands, with activities placed in parallel as appropriate, the whole project is optimised to take a total of seven months. Effectively, there are two critical paths in this plan: path B–C and path A–D–F.

### ***Improving and optimising a project plan***

Strategies for improving the critical path to reduce overall duration or total cost include:

- (1) ‘Fast tracking’ – identifying activities which can be run in parallel.
- (2) ‘Compressing’ a task – by adding more resources to complete the task in a shorter time.
- (3) Reducing the required outputs (e.g. quality) so that task duration is reduced.

Concepts of ‘float’ and ‘drag’ in critical paths are important to understand since they can be used to optimise the project and ensure you are working within practical constraints.

**Float** (often known as ‘slack’) is the amount of time a task can be delayed without affecting the overall schedule. In the previous example (Figure 10.4), between milestones 30 and 50, activity E has a ‘float’ of one month. This is calculated as the difference between the time required for activity E (3mo) and the total time between nodes 30 and 50 ( $1+3=4$ mo). A float is excess or slack time available.

A **drag** is the absolute time added by an activity on the critical path which is required to complete the task. It is the quantified amount of time that an activity or constraint on the critical path is adding to the duration of the project. Obviously, ‘drag’ cannot be more than the duration of the activity. The drag of a critical path activity is equal to either:

- its remaining duration, or
- the total float of parallel activity that has the least total float (if more than 1 parallel activity).

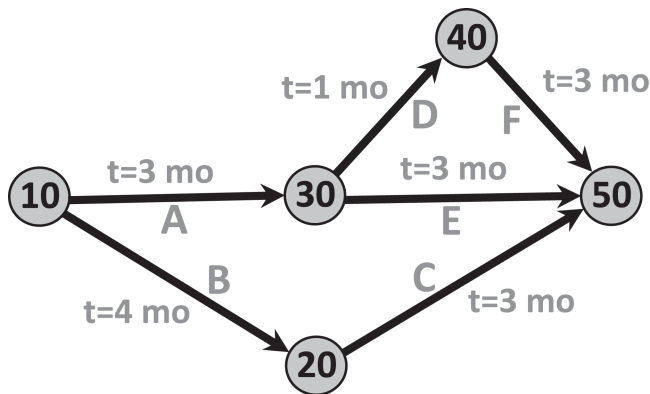


Figure 10.4 A simple critical path analysis, in this case an ‘activity-on-line’ chart with milestones on each numbered ‘node’ (10, 20, 30, 30, 50).

In Figure 10.4, task B (up to node 20) and task F (up to node 50) each create a drag of one month on work running up to final node 50. If you devised a way (e.g. using more resources or people) to accelerate the task completion times, so that task B could be completed in three months and task F could be completed in two months, you would reduce the drag of one month on both tasks and save one month on the whole project duration, which might be economically or logistically beneficial. It is important to note that this saving *would not be achieved* by speeding up just one of these two tasks.

Critical path analysis helpfully identifies dependencies between activities and enables the project plan to maximise efficiency in the use of time, generate cost saving in the use of resources, and by optimising flow, it is beneficial in monitoring cash flow. If you know the cost of each unit of time (e.g. cost per day), you can identify the cost of ‘drag’ and justify additional resources if beneficial and value-for-money.

There are, however, a number of limitations to critical path analysis. First it is reliant on clear and reliable information including task time, costs, and so on. The approach is based on best estimates of time for completion of activities, which may not be realistic on the ground, so one poor estimate could throw the whole analysis out. The usefulness of Critical Path Analysis may therefore be limited in complex and large-scale operations, and its complexity means the manager needs skills and abilities and a strong team ethos to manage and adapt plans using the ‘critical path’ project management rationale. In addition, critical path charts can get unwieldy.

However, if the process is automated on software (free versions are available online) task lists, resources, dependencies, and amendments are automatically accommodated with little effort.

### Team process 5 – plan protection process

The process for ‘protecting plans’ is a vital but often ignored aspect of project management (Black 2018a). Some activities within the process, such as risk assessment, appear familiar, but the whole plan protection process brings together these activities, involving the contributions and creativity of people, in a flow which has a far more impact on successful project management.

*Plan protection is one of the most important processes in project management.*

The purpose of the plan protection process is to ensure that a project plan is as robust as possible and best able to deliver success. A plan may already include elements of **what** to do, **who** is responsible, **when** to deliver by (and perhaps others such as **where**, **how** etc.). The plan may also be depicted in a Gantt chart or tested with techniques such as critical path analysis. The specific plan protection process involves conducting a sensible pre-planning risk analysis to finalise the overall plan before resources and time are committed to its implementation (Clayton 2012). It is a process based around the idea that ‘prevention is better than cure’. Plan protection can also be used at any review point in a project, such as at transition between phases, to ensure the plan for the next phase is as robust as possible. A key part of plan protection is defining mitigation and contingency actions.

**Mitigation actions** are those which aim to eliminate the problem (or risk) at source by preventing its effect and thereby effectively designing preventative actions which circumvent any possibility of that risk occurring. Mitigation is the best approach to take, unless the cost or effort cannot be reasonably justified in light of the relative likelihood of the problem ever occurring (in which case contingency is better). A mitigation example is investment in the fire-assessed installation of safety-compliant electrical connections in an office.

**Contingency actions** are those prepared and ready to implement if the identified risk actually arises. Contingency actions hopefully will never be needed, so the investment is extra burden to the planned budget. This cost burden (for something that might never be used) is a reason for minimising contingency. That is not to say contingencies are unimportant. An example of a contingency action is a hand-held fire extinguisher being installed in an office. In some instances the only option is to have a contingency action.

The important concepts of plan protection are:

- A plan can be made *more robust* by sensible risk analysis.
- The *potential impact and likelihood of risks* should be assessed before investing time and effort.
- *Mitigation* should be the first course of action in the face of potential risks.
- *Contingencies* should be seen as a last resort: it is better to plan feasible mitigation action.

The objective of this plan protection is to help the team to break down complex or ambiguous situations into constituent, manageable elements. A simple four-step process is used.

### ***Step 1 – review critical or vulnerable stages in the plan***

Although all steps could be reviewed in a smaller plan, for large plans this may not be feasible, so some selection is required. Pick out, with discussion, any particular steps which are critical to success (and cannot fail or be compromised) or which are inherently risky in nature (in terms of success and failure). Do not rule out review of any stages open for debate, since if people have concerns, they should be given consideration and, if less important, the plan protection process will quickly reveal this to everyone’s dissatisfaction. If in doubt, and time is limited in a planning session, remember Juran’s 80/20 Pareto rule for considering ‘the vital few’ and focus first on the steps that people agree are the most important/critical first, then the more trivial ones later. This means you will not necessarily run through the plan in a sequential order but in the order of critical/vulnerable steps.

A simple grid is used to map out the process taken on each of the activities selected for the protected plan (see Figure 10.5). For each chosen activity/step, the Project step (e.g. its reference number or date in your project plan) and the activity are summarised very briefly in the first

two columns of the grid. Then, for that step the team should consider through discussion and careful documenting of notes on this chart, the following information:

- (1) What *risks* are associated with this activity (potential failure/breakdown), listing each separately.
- (2) What would be the *impact* of each risk if it occurred (using a rating of: high/medium/low).
- (3) What is the *likelihood* that each risk will occur during this activity? (again: high/medium/low).
- (4) What *mitigation* can be applied to prevent this risk from arising? (a creative thinking exercise).
- (5) If mitigation fails, what *contingent action* could be taken if the risk arises? (more creative ideas).
- (6) Mitigation actions (plan protection action) must be *added as new steps in a revised project plan* (noting that these new steps may have to occur much earlier in the overall plan).
- (7) Contingency actions should be added as new resources into the plan for the given activity/step.

Step/ Time	Activity	Risk(s)	Impact	Likelihood	Mitigation (plan protection)	Contingent Action

Figure 10.5 A section of a blank plan protection process. This chart can be presented on a flipchart or on a screen, tablet, or PC, so that everyone in the group can see and contribute. This particular chart shows space for two steps selected from a project plan but could easily be for just one or more depending on space needed and number of risks being considered. Similarly, for each activity/step, one or more risks can be considered (three spaces are shown here in each step, for illustration).

As the elements in steps 6 and 7 are included in the revised overall project plan, the final plan will therefore be more robust, for the sake of a few additional well-thought-out considerations.

### **Example: protecting steps in a plan to build a captive breeding facility for tortoises**

In a planned construction of a tortoise breeding centre, two areas of risk have been identified:

- The boundary (security) walls on the proposed design are close to neighbouring trees.
- The gate arch opens out to an adjacent road which gets heavily flooded in the rainy season.

Activity 19 ‘building the walls to the compound’ in the overall project plan and activity 22 ‘laying of the courtyard surface, the entrance gateway and adjacent paths’ are the specific project steps.

For each of these activities 19 and 22, the project manager and project team have considered the potential risks associated with each activity (potential failure/breakdown), the impact if that risk occurred (high/medium/low), the likelihood that the activity risk will occur, all summarised on the plan protection matrix (Figure 10.6). This information makes it possible to consider and prioritise:

- (i) What mitigation can be applied to prevent this risk arising and
- (ii) What contingent action could take place if mitigation fails or is not otherwise possible.

The four *mitigation actions* in Figure 10.6 would now be built into a revised project plan for development of the site. In this example, the *contingencies* will be included in future operational procedures. Sometimes, contingencies become part of the project plan itself. Clearly, the cost of the mitigation action should be less than likely total cost/risk of failure or the project will become unmanageable. *Note that the four new mitigation steps will each themselves need to be considered against the protecting plans criteria* (e.g. is permission needed to cut down neighbouring trees?).

### **Project phase transition, change control, and completion/closure**

Project controls and reporting are an important element of leadership and governance (and will be discussed further in Chapter 11), providing oversight of the programme of work, use of resources, and achievement of goals. A project plan should be prepared with specific elements to enable accurate oversight and examination of project progression (Clayton 2012; Black 2018a):

**Phase transitions**, namely the steps between one part of a project and the next element of the project, are a critical decision point during project management. At times as a leader, you may have to accept compromises or failures at one stage yet progress to the next phase anyway. An example may be low success in captive breeding before a release process is developed; the project might still choose to proceed to the next step. On other occasions the project might have to be delayed until the earlier phase is completed successfully (see the example in CASE BOX 10). At worst, a project will have to be terminated if success cannot






Step/ Time	Activity	Risk(s)	Impact	Likelihood	Mitigation (plan protection)	Contingent Action
19	Build tortoise enclosure walls	Predators (mongoose) can climb walls and access the site	MEDIUM (juveniles only)	LOW		Set traps outside walls if mongoose are seen
		Intruders can scale the walls and enter the enclosures	HIGH	HIGH	Outer wall build to be faced in smooth stone with pointing set tight	
		Trees adjacent to the north wall would assist climb by intruders	HIGH	HIGH	Cut down all branches/trees near to the enclosure walls	Procedure to shut tortoises in locked sheds each night
22	Lay enclosure base, access paths/ vehicle access to courtyard	Water egress from outside site in rainy season (at the Ford road entrance)	HIGH	MEDIUM	Add 10 inch gutter outside gate on 'Ford Road' side of the site, plus steel gutter at vehicle entrance. Floodboard fixings attached to archway.	Deploy flood board at gate arch on occasions of extreme rainfall
		Flood damage to site in rainy season	HIGH	HIGH	Add aggregate base layer 2ft, compress & compress top layer (wacker plate)	
		Aggregate for base layer not available	MEDIUM	LOW		

Figure 10.6 Two completed sections of a plan protection matrix. The third risk for each of activities '19' and '22' carry low risk/likelihood so would be considered unnecessary for investment of mitigation or contingent action, unless people had a strong argument for its inclusion (such as a zero cost action).

be achieved. None of these decisions can be made by the project manager alone (see Chapter 11 on governance, including 'Management by Exception').

**Change control** is the method of documenting changes in your plan and ensuring that everyone is using the latest up-to-date version (Clayton 2012). Use of simple version numbers and dates on each reissue of project plan documents (or electronic files) should be sufficient.

**Governance arrangements (levels of authority)** should be clearly documented to define how small changes (e.g. within budget and within time milestones) can be implemented by the project leader. Plans can then be circulated to the team with a change in version number revised on the document/file. On the other hand, if larger changes are required, such as those outside the project managers budget limit or their sphere of control, the change must be agreed by the project sponsor and project board, recorded in formal minutes and meeting notes and updated as a new project plan version agreed by the board or sponsor (depending on governance structures; see Chapter 11).

**Project completion or project closure** should be formally reported to the project board and 'signed off' with their agreement, and so be reportable to funders and other stakeholders.



### **Case Box 10 Importance of process definition: roadblocks to species reintroduction in Europe**

In the opening decades of the twenty-first century, there has been a surge of interest in ecological restoration and the reintroduction of terrestrial species in Western Europe. Initiatives by NGOs, private organisations, and occasional accidental releases have resulted in re-establishment of previously extirpated species, such as wolves, beavers, bears, wild boar, bison, lynx, great bustards, white stork, and white-tailed sea eagles. The challenges with these initiatives are significant, including habitat recovery, public awareness, and captive breeding.

A case in point involved the reintroduction of a bird species in Northern Europe in a location where the bird had been extinct from its specialist grassland habitat for over 100 years. The species was seen as a flagship for recovery of the region's grasslands, which had been transformed by overgrowth of other species of vegetation and were largely unrecognisable to the traditional landscape and devoid of many other grassland specialist insects, invertebrates, birds, and reptiles. The plan was to recover the landscape with significant innovations and the support of local landowners, captive breeding of the bird species, and careful release management of those birds (including training and soft release protocols). The approach that was taken, without question, was highly professional, technically excellent, and was science-led. Significant planning and preparation had been undertaken with expert groups including the involvement of organisations previously involved with reintroduction of the same species in other countries. The project was well-funded and professionally resourced with good facilities, equipment, highly capable staff, and effective and tried-and-tested procedures.

The programme involved long-term clearing of the proposed reintroduction site by professional staff and volunteers, who were involved in the removal of dominant succession vegetation to open the way for the development of natural grasslands. Innovative use of livestock in open grazing was a key and important activity and a specialist breed was identified, brought to the region, and managed by a local expert livestock farmer. Local people and stakeholders were of course consulted about the project and the programme team pressed ahead successfully as planned, stage by stage, including initial captive breeding, habitat recovery, and release management. Released birds became established and progressed to nesting in the locality and on occasions a little farther afield. The progress of the population was regularly monitored over time. As the small pilot population became established, there was a clear need to continue to expand the landscape recovery to enable further colonisation of recovered habitat by the species and progress towards a self-sustaining population.

Unfortunately, the project hit a roadblock. Local dog owners were opposed to the temporary fencing which was used to retain the livestock, since it disrupted their dog walks. As a vocal group they managed to prevent the placement of fences, so habitat recovery could not be continued. A significant proportion of the project's identified landscape could not be recovered, and the capacity of previously recovered habitat was insufficient to house reintroduced birds to a self-sustaining level. The multimillion-dollar dream of a self-sustaining wild

population was curtailed, and captive breeding of new chicks was halted since there was no landscape available for reintroduction. The project was curtailed by the views of a few dozen dog walkers, considered perhaps as the least important of local stakeholders.

In this project, landscape recovery was seen as a technical *activity*, which had previously proven successful. However, a broader *landscape recovery process* should have been identified to include the need to convince land users (including dog walkers) of its benefits, thereby securing the support of those dog walkers for enabling the work (e.g. advocating for the new landscape with peers, preparedness to change dog walking routines for a few months). Engagement activity should have sat within the landscape recovery process. Engagement should not have been simply ‘a consultation exercise’ (i.e. consultation activity). Dog walker engagement should not have been considered a separate activity, but rather it should have been identified, designed, and enacted (early) as a fundamental early sub-process (purpose: engaging land user support) in the overall landscape recovery process.

### **Chapter 10 reflection – developing a team process skills toolbox**

A team that is familiar with process skills – how people go about their work together – will improve its effectiveness. Team process skills need development and facilitation by the leader.

- Process management addresses: purpose, demand, activities, flow, methods, material, people, process-owners and feedback. Some processes need goals and documentation.
- Performance of task processes can be measured relative to demand (e.g. the needs of species and ecosystems or the pressure of threats) and the capability of the process itself.
- Teamwork is based on following effective team processes as much as it is about relationships.
- Team processes include situation assessment, decision-making, problem-solving, and planning and plan protection. Meetings processes, feedback, and training are other examples.
- In managing risks, mitigation is the ideal response, built into a plan to eliminate possibility of a problem, but if it cannot be done, then contingency can be added to the plan ‘just in case’.

### **Exercise 10 – team process skills**

**Group decision-making process** – ideally, you can carry out this exercise with colleagues, but it is also an easy process to practise as an individual before you use it in a group situation. Follow the ten-step decision process. If you are trying this method out with others, make sure that you coach them on the following key issues to ensure that everyone is properly involved, that they get best value from the exercise, and of course to ensure you come to the best decision.

- (1) Define a clear and unambiguous decision statement which avoids ‘implied decisions’.

- (2) Establish a range of realistic decision objectives, ready to split them into musts and wants.
- (3) Take time to identify actual musts and also the *weights* of each want. Use a matrix (Figure 10.1)
- (4) Identify clearly what your alternatives are. If one alternative has several alternatives implied within it (e.g. release pilot group of captive-bred birds), then split it into separate items, for example:
  - (a) release pilot group of captive-bred untrained birds.
  - (b) release pilot group of pre-release trained captive-bred birds.
  - (c) release pilot group of captive-bred male birds (bachelor group).
  - (d) release pilot group of trained captive-bred breeding pairs.
- (5) Ensure that people can debate and consider their ratings of each alternative.
- (6) Take time in evaluating the tentative decision.

**Plan protection** – this is an exercise which you can apply to a live project.

Identify a couple of key risk areas in an existing project plan. Take your team through the plan protection process. Make sure that you focus on the following:

- (1) Focus on realistic risks for each activity. Do not spend too much time on low probability situations, but do not dismiss them entirely.
- (2) Take time to rate the impact of the risk (H/M/L) and the likelihood of the risk (H/M/L).
- (3) Take time with creative, expert thinking to consider mitigation and contingency actions.
- (4) Take significant time to work out which suggested mitigation and/or contingent action should be carried forward into your plan – is it feasible and will it be resource effective?

Make sure any important elements are written into your next update of the plan.

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# 11 Governing change and innovation in conservation

## Personal Perspectives – Introduction

Conservation is the business of change. There is a strong base of theory and practice on how to change the status of rare species (population recovery), reduction of threats, and recovery of habitats. We aim to alter human behaviours that consume natural resources. We aim to eliminate trade in endangered wildlife. We seek to accelerate changes in population structure and the number of individuals of rare species. We pursue regeneration of landscapes, regrow forests, cleanse rivers and lakes, and recover coral reef systems. We run projects, often only budgeted for a few years in the hope that this will make a difference. More successful leaders establish sequential funding to enable long-term initiatives, making breakthroughs after decades of sustained effort.

One example is the Mauritian Wildlife Foundation (MWF), which has had significant success. Previously, perilously endangered species like the Mauritius kestrel are now well-established in the wild. Innovation in methods and philosophy have been vital in this success. After a devastating recent oil spill off the coast of Mauritius, MWF and its partners rapidly mobilised efforts to address the pollution. Had this occurred decades earlier there would have been little infrastructure or capacity to deal with the disaster.

Professional leaders in conservation need to understand and apply appropriate change practices in their programmes in new and innovative ways. Frankly, the pace of threats far outpaces the current pace of improvement in conservation. Sometimes, we cannot recover what was there before, and instead need to establish new ways for biodiversity to thrive. Experience over the past few decades of landscape-level conservation (in terms of theory, policy and planning) might suggest the pace of landscape conservation is clearly too slow in the face of human population changes, urbanisation, and land use conversion for agriculture. The new agenda of ‘rewilding’ using species to transform landscapes by restoring ecosystem functions (plus abiotic processes such as water catchment, or reduced soil erosion) is essentially an accelerated version of what has been seen with species conservation in places like Mauritius (as one example). Yet innovation is still a poorly understood concept in conservation. It is not a matter of simply applying approaches in new ways, new purposes, and new contexts. The cycle of innovation – hypothesis, application, measurement, improvement – needs to be learned. Leaders need to encourage conservation workers to use this approach when developing and applying practice. It will make a difference for species and ecosystems of concern.

### **Why governance affects programme design, improvement, and performance**

If conservation is to be effective and impactful, leaders must focus on the right outcomes and have a good understanding of whether they have achieved them. Effectiveness and impact are influenced by the legal, political, and governance systems within which a programme operates (Pomeranz et al. 2021). The leadership and oversight of capable people enable conservation organisations to navigate this complexity. However, local human factors are also important. Historically, in many countries, governance has been overseen from a colonial standpoint and is now a difficult area to re-establish with local people (Randeria 2007). This can be a barrier, since where communities are central to successful and sustainable conservation work, their direct involvement in governance of conservation work can be a key to success. Governance (i.e. responsibility, oversight, and authority) casts a shadow over any conservation initiative, whether governance is explicitly established ('our problem') or implicitly derived ('someone else's problem', or 'the government's problem').

The way that people in positions of authority see the world will impinge on the design, control, and flexibility of an organisation. A command-and-control approach to natural resource management in the past caused significant problems (Holling & Meffe 1996), and a different mindset is needed in leaders of conservation in the face of contemporary environmental and biodiversity challenges.

Depending on the context of your conservation initiative, some people will view the purpose of your organisation as returning things to a traditional or historical state, some will see it as renewing the function of the landscape for our benefit, others might see it as providing a voice for species, some will see it as a legacy for their grandchildren, others might even simply see it as a commercial opportunity. How people with responsibility, oversight, and authority in conservation organisations view the way that conservation should be done will have a huge influence on how the work of conservation gets done. Governance and perspective do make a difference.

### **The project paradigm versus the process paradigm in conservation**

Conservation work is the business of change; improvement, regeneration, rewilding, re-habituating, re-educating. There are many different ways in which change can be enacted. When we consider what conservation approach to pursue to enact change, we need to consider four basic paradigms: passive change, project-driven change, active progressive change, and process-driven change.

**Passive change** ('do nothing') is simply where an organisation, an activity, or a system (such as an ecosystem) is a victim to the altering factors that impinge upon it. Essentially, no effort is made to influence things for the better. For example, an ecosystem is overrun by non-native plants and animals or an estuary gets silted up by alluvial deposits coming from upstream rivers and mountains (the equivalent is seen where a business organisation becomes obsolete when its products and services are surpassed by competitors or become irrelevant as societal needs change). However, doing nothing is *not always* a bad thing for species and ecosystems. To take an extreme example in India, lions (*Panthera leo*) have re-colonised coastal scrubland and now more than 100 animals live over 60 miles from Gir Forest national park which was previously the last refuge of the species in Asia (Ram et al. 2023).

**Project-driven change** is commonly encountered in conservation and is also seen in many aspects of human activity (healthcare, social services, education, construction, manufacturing, politics, commerce, even sport). It involves the definition of a product or output, normally a

tangible outcome. Increasingly, in many fields (including conservation), intangibles such as changing the behaviour of people are considered outputs, although the projects methodology is poorly suited to intangible outcomes (as discussed in this chapter). Project-driven change does, however, have a noble history in extraction industries, heavy industry (e.g. shipbuilding), manufacturing, and civil engineering. Project-driven change involves significant planning and an infrastructure to manage project progression. It is a useful methodology when making infrastructure changes in conservation, such as building fences, creating national parks, installing facilities, or carrying out tree-planting regimes.

**Active ‘progressive’ change** is a form of continuous improvement or innovation (both cycles follow similar principles). It is particularly noticeable in emerging enterprises of recent decades, such as high technology and IT, communications, research and development. Improvement processes are well-suited to fast implementation through cycles of piloting and upscaling. The approach follows experimental principles (hypothesis testing) and pursues goals which are redefined as new knowledge comes to light. An innovation that is upscaled should thereafter be established as a *process* after which continuous improvement and occasional renewal (redesign) can be considered. Early innovation and experimentation to recover the Mauritius kestrel is a good example of this change being used in conservation (Jones & Merton 2012).

**Process-driven transformation** is change which is delivered by actual processes which have been designed with the purpose in mind. Essentially, this is ‘conservation process management’. For example, a species’ population recovery such as the Mauritian Wildlife Foundation’s initiative for the Echo parakeet in the 1990s was driven by a ‘population recovery process’. Another example, a species reintroduction, is Wildwood Trust’s programme with the red-billed croucher in southern England which is driven by a ‘reintroduction process’. While this process-driven approach appears to be self-evident, in many cases in the past, the choice of change methodology (to develop a process) is intuitive and may not match the actual needs of the programme. For example, there have been instances of unsuccessful releases of species (from initial efforts with black footed-ferrets in the United States, through to Asiatic lions in Iran) where the release activity was not embedded in a properly defined *process* of reintroduction (which was not perceived or designed or managed), and the animals did not survive.

**Relationship-driven change** is less commonly discussed in conservation but is familiar to programmes where community participation is key. Successful community-led programmes have usually arisen from carefully developed community relations. Organisations like Dahari in the Comores, Green Islands Foundation in Seychelles, and the Snow Leopard Conservancy – India Trust in Ladakh (Figure 11.1) spend years building relationships with local community members and engaging people in commitments where they have shared interests.

### Incorrect paradigms of change in conservation – the project myth

Project management is the pervading paradigm in conservation. This is likely due to the now well-established structures of funding encountered in conservation, initially based on an expeditionary approach to fieldwork (i.e. time-bound activities limited to a visit or field season). This was later reflected in formal short-term grant-funded projects which followed funding cycles typically of one, three, or five years’ duration, which also places a time boundary on work (and by necessity a limit on output). Whilst the understandable constraint of time-limited funding cycles necessitates calendar-led financial management, should it logically follow that programme design should take the same pattern of project management? To put it simply, no.

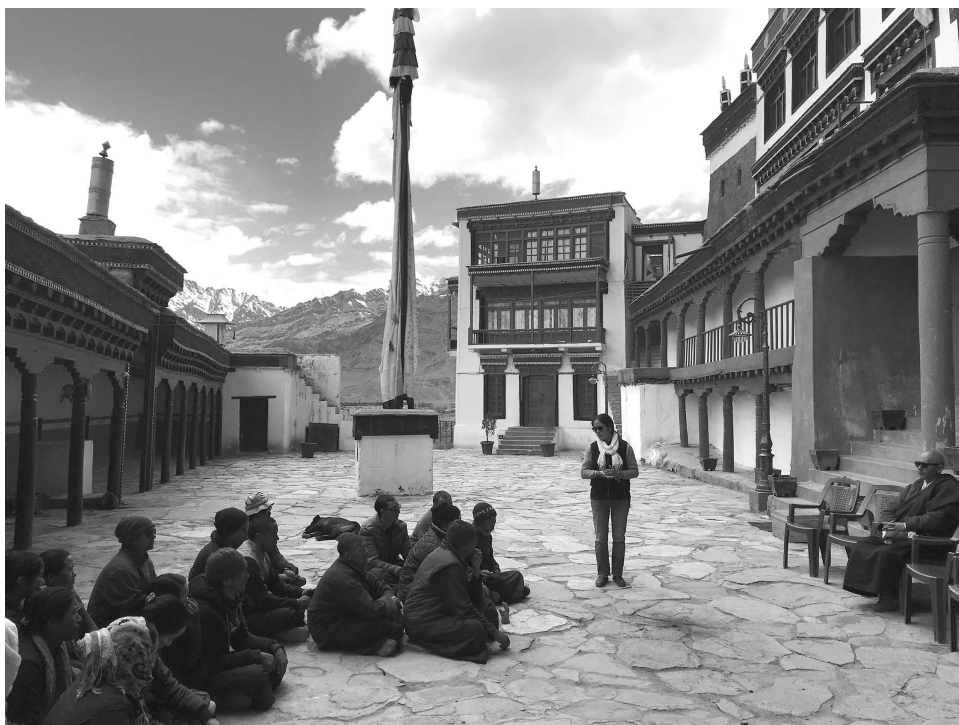


Figure 11.1 Wildlife training for local people conducted in a monastery in Ladakh, India, is one element for building relationships and support within local communities.

Source: Photo: L. Talbert

In programmes supported by government funding it is noticeable that long-term, evolving initiatives can be put in place once commitments to budgets have been agreed. As a couple of examples, the progress made with protection of Arabian leopard (*Panthera pardus nimr*) in Oman is one and the successes in India with re-recovering the population of Indian one-horned rhino (*Rhinoceros unicornis*) and Bengal tiger (*Panthera tigris tigris*) are another. Under a different model, programmes for the Mauritius kestrel (*Falco punctatus*), pink pigeon (*Nesoenas mayeri*), and echo parakeet (*Psittacula eques*) in Mauritius are now well established over decades, supported by an array of income streams, including funded projects, donation, direct NGO support, ecotourism and retail, and corporate sponsorship. These approaches allow the management team to consider interventions over the long term, which is much more realistic in terms of timescales for true ecological recovery, as well as opportunity to develop local teams to deliver the work and influence societal changes in attitudes towards wildlife.

There are a number of characteristics of conservation work that also preclude it from being well suited to project management:

**The lack of a ‘product’** in conservation is a fundamental problem with project management approach. A ‘project’ is defined as a time-bound series of activities to produce an output, essentially a ‘product’. In conservation, unless we are building a physical facility like a breeding centre, or designating and opening a national park, in the majority of instances



*conservation work is not producing a physical product.* Even a population of animals is not a physical product, since it is defined by a range of highly-variable elements including the species behaviour, breeding biology, changing demographics (births and deaths), and interactions with predators, prey, diseases, and habitat. In the same way, when we are dealing with changing human behaviour (e.g. natural resource offtake) we are also clearly dealing in entirely non-product territory.

**Variable outputs are a reality** in conservation. Variability is the norm in most instances; we produce very differing outputs from the work that is undertaken due to variability of opportunity, weather, nuances of animal behaviour, and so on. Management and control of variability (to achieve a consistent or predictable output) requires specific disciplines of *process management*. These disciplines involve a completely different skill set to project management. Bluntly speaking:

*The project management approach is not appropriate to most conservation initiatives.*

**Project management seems to be a default** ‘go to’ mode of planning the work, the received wisdom of how to do things. Our default if there is some work to be done is to set up a project. If there is a change that must be made, we choose to devise a project to undertake the change. The conservation sector is not alone in this default thinking. Every other sphere of management including hospitals, construction companies, churches, universities, and corporations also use this approach. Nevertheless, just like using appraisals to motivate staff, management by objectives to align effort, reorganisation to make people work more effectively, cost-cutting to increase efficiency, and economies of scale to increase profit, the approach is not particularly helpful. *Whilst the use of project management is observed almost universally, like all these latter mentioned approaches, project management in conservation is largely ineffective, or at least a suboptimal approach that wastes time, money, and effort.*

**The paradox of people and projects** is important to consider. While people like doing projects (see earlier), they do not like having a project done to them. Local communities will not like being ‘done’ with a project; it feels insincere, short term, uncommitted, and sometimes rather cold and anonymous. Moreover, a project is unlikely to engage, support, establish, embed, come alongside, encourage, and mentor the people who need to make change happen. Instead, long-term relationship building is important for all of these requirements to be addressed to support establishment of local governance of conservation outcomes (Brown 2002; Mutanga et al. 2015; Salerno et al. 2021a, 2021b). Yet we still persist with projects.

**Conservation needs ‘its own management voice’.** Conservation is a mature and important sector of human activity, one that can demonstrate that it understands how to use its resources, how to mobilise its people, how to make a difference. The sector has already established recognised disciplines of conservation science. Also, it has well-understood challenges in particular contexts locally and globally (Bawa 2006). The conservation sector now needs to identify, develop, and use methods and philosophies of management that make sense and have impact in the context of biodiversity and systems change (i.e. ecosystems and relevant social systems). People are not working in conservation merely to keep themselves busy in jobs (and to ‘move on to the next project’). People in conservation want to conserve species and recover ecosystems, so we had better do it impactfully and make it count, using approaches that make a difference.

**Project management can be used in specific situations.** I certainly advocate project management to organise and oversee construction of a building or to design and build a fence. Choose the project management approach for tangible outputs, but do not attempt to define intangibles (such as behaviour) or variable outputs (such as ‘number of animals bred’) as

‘products’. It is tempting to do this, but you only end up creating meaningless milestones and controls, fitting square pegs into round holes, which distract people from the difficult but essential real work (e.g. *actually* changing people’s behaviour or breeding rare animals or nurturing the growth of natural landscapes). Use project management for producing tangible products or output, but don’t use it for everything.

**Most spheres of change are not suitable for project management.** Project management involves creating a desired, specified output from known predictable inputs by establishing a series of planned activities carried out in a given timeframe; almost none of these distinguishing elements appear in the majority of conservation work. Whilst not being able to justify this with a comprehensive list, a review of the CMP classification of Conservation Actions (CMP 2016) shows most would not meet those criteria as projects. In terms of more specific discrete but familiar examples, devising a reduction in human–wildlife conflict or changing attitudes of fishers in a marine protected area or recovering the population of a rare species are all activities which would *certainly not be suitable for application of project management*.

**An alternative management philosophy for conservation.** The sector needs an alternative management philosophy for conserving species and ecosystems and recovering their place in landscapes, freshwater systems, and marine environments, and for changing behaviours of people living in those landscapes or those people who directly or indirectly are unsustainably exploiting natural resources. For all of these processes there are well-established management approaches which offer better alternatives (than project management) for managing change. Fortunately, we have more than 50 years of learning about what does make an impact in conservation (as well as what does not have an impact), so we need to seek out these examples of practice to give us clues as to which paradigms of management and leadership fit with the cycles, characteristics and nuances of conservation work, conservation contexts, and conservation threats. We need to examine species conservation, ecosystem and landscape renewal, and human behavioural change.

**The importance of method and dispensing with the ‘best practice myth’.** Leaders need to understand how to manage processes, and in conservation, many of those include processes of change (Black & Copesey 2014). Method is very important in process management as long as methods are appropriate to the context in which the work is set. Essentially, method has to fit the purpose of the process; purpose will define the method required (Deming 1982; Scholtes 1998).

This means that there is no such thing as ‘best practice’. Best practice is a myth that some people use to avoid the challenge of thinking about what should really be done (Seddon 2003). Let’s face it, it is easier to copy others and the idea of ‘not reinventing the wheel’ is appealing. The reality, however, is quite different. We need to adapt methods to context and be ready to change again, over time, to optimise outcomes. Circumstances may demand it, and if we are good at innovating, our internal motivation to improve things will keep encouraging methods to evolve for ever higher levels of performance in the future. If we do not do this, and just ‘stick to the plan’, then the growing levels of threat to biodiversity will overwhelm us.

This has implications for people in governance roles with oversight, authority, and responsibility for conservation organisations and their work. If those in governance roles think and operate as if conservation is like any other business, their thinking will be accordingly limited, and the latitude for the organisation to influence and enable ecological change will be curtailed. Limited perspectives in governance will mean limited perspectives in organisational vision, planning, budgeting, and partnership development; conservation work will be stifled.

Fortunately, the history of conservation provides examples where a different type of innovative, exponential improvement has been achieved and continues to be achieved.

### **Learning from leading species management initiatives**

As has been noted in earlier chapters, there are some outstanding examples of species recovery which have enabled the development of conservation science as an integrated scientific discipline over the last 50 years. By way of illustration, a few examples are summarised here since they provide practical lessons in the leadership philosophy that influences conservation success.

#### ***Bird recoveries in Mauritius***

The recoveries of bird and reptiles in Mauritius are well documented in conservation literature (Safford & Jones 1998; Jones et al. 2018). The main observations of the achievements is that species can be recovered from truly miniscule remnant populations. The Mauritius kestrel was recovered from four individuals (and in practice, just one breeding pair), the echo parakeet from fewer than 20 individuals, the pink pigeon from about the same number. Recovery from a very low base, which experienced professionals at the time considered almost hopeless (Myers 1979), has been shown, against the odds, to still be possible.

Furthermore, the recovery of these bird species was achieved on an *exponential* scale of population growth (Black 2018). Biologically, this is important to achieve to ensure acceleration through generations of breeding cycles to maintain diversity but also to reconstruct the demographics of the population (and compensate for factors such as natural deaths, wastage, disease, unexpected mortalities, and human error). This acceleration was driven by deliberate human effort through *innovative methods* (double clutching, fostering, artificial breeding sites, captive breeding, supplementary feeding, predator removal, etc.). Some methods worked and were repeated, others failed. Some failed approaches could be adjusted and improved to achieve success; other methods were rejected. Some circumstances change (e.g. emergence of novel diseases) which required further adjustment in methods. The learning process was dynamic and remains ongoing.

#### ***California Channel Island fox recovery***

One of the most compelling stories in conservation in recent years (Coonan et al. 2010) has been the groundbreaking recovery of various subspecies of the California Channel Island fox (*Urocyon littoralis*). Aside from the obvious success in recovering the species from dramatic declines due to differing factors on each of the species' island homes, the notable speed of this achievement (within 10 years) has set a new benchmark for what is possible in species recovery.

The programme succeeded because people looked at the threats faced by the species on each island, essentially the reasons for mortality. Some threats on particular islands were eliminated quickly (e.g. translocation of golden eagles which preyed on foxes) but then returned to be a problem until errors in understanding were recognised. Once maturely considered and examined the 'causes of causes' of threat were identified. This involved some creative thinking, but most importantly a supportive and collaborative (blame-free) approach. For example, the presence of golden eagles was not eliminated until feral pigs were removed from the islands (this prey base attracted eagles back and the eagles also preyed upon foxes). Also, bald eagles were reintroduced to displace golden eagle nesting sites (bald eagles will push out golden eagles but being fish-eaters themselves do not generally prey on foxes).

On other islands a longer-term solution was needed, including vaccination for canine distemper on populated islands where domestic dogs and cats were present. The programme team took the remaining animals into captivity so that they were safe from threats in the short term. Population recovery was conducted in captivity but always with a short-term view.

In addition, local people on populated islands needed to be educated to value the foxes as a unique species present on their islands.

### **Process management in conservation: enabling ecosystem change**

Initial examination of systems in Chapter 10 indicated that process management is based on four principles - purpose, demand, value and flow. Seddon (2003) often discusses this as demand, value, and flow, but we add '*Purpose*' (which Seddon expects is already known) since it is an often forgotten concept yet is completely fundamental in the correct design of any process. These concepts are revisited here to emphasise their relevance to species and ecosystems:

**Purpose** is the 'reason the process exists' and necessarily defines the requirements of the methods (activities and tasks), resources, and outputs from the process. As has been noted earlier, the activity of cleaning a table becomes a very specific process (methods, resources, skills, outputs) when it is given the purpose 'clean a table ready to conduct emergency surgery' (Scholtes 1998). So in conservation work, a 'captive breeding process' will be less specifically purposed than one that is designed 'to breed animals for successful reintroduction to the wild', which would also be different to a process 'to breed animals for a genetically-balanced captive population'.

**Demand** is the 'draw' or 'pull' from the needs of the ecosystem or species of concern. This might be driven by specific biological needs of the species or influenced by the direct impact of threats to the species or indirect impact of other threats (such as climate change impact on habitats or pet trade market forces upon poaching of live animals). Demand for bushmeat puts a threat pressure on large-bodied mammals in the wild. Demand for agricultural land puts pressure on habitats due to land clearance. Demand for a species of chameleon in the pet trade causes offtake of the species from the wild. We need to understand what demand is pressuring the system of concern. In this way, demands can be 'positive' (i.e. helpful), such as the need for more nesting locations, or 'negative' (i.e. unhelpful) such as increasing demand for rhino horn for traditional ornaments.

**Value** defines what the need should be, and in biodiversity conservation this is what matters to species and ecosystems of concern. Conservation is often a juggling game when understanding 'value' since animals and plants cannot tell us what they want. Sometimes, we have to make value judgements, such as taking an entire population into captivity for its own protection or vaccinating animals in the wild. Value is fundamental since it defines what we measure to improve, but it may change over time as species needs change and adapt to context and other expectations. With the attempted conservation of the po'ouli (*Melamprosops phaeosoma*), the honeycreeper endemic to Maui, initial conservation emphasis was placed on habitat needs and, to a lesser degree, population size (Powell 2008). These were superficially the 'value' assigned to the process (superficial, since it was not specifically defined as 'value' in this case). In reality, the real 'value' for the species was 'opportunity to breed', since the birds were in a less-than-ideal (and probably marginal) breeding habitat, made notable by the single observation of a nest in 30 years of study (Groombridge et al. 2004). By the time attempts were made to rectify this situation (by pairing birds in the wild, and later consideration of collection into captivity of a breeding pair), the surviving birds were most likely past breeding age, and the opportunity was lost.

**Flow** is the sequence and timing of activities that create the process. It is also the connections between activities (including delays and blockages). Flow is vital as it relates to context. Flow may be an indicator of failures and improvement. Flow is the source of optimisation of the system, even after methods are improved.

The impact of a method (or activity, or task) embedded in a process will be influenced by demand, value, and flow. As a simple example, an excellent data collection method will be use-less waste of time and resources if it is conducted at the incorrect time.

In the recovery of the Maui Parrotbill (*Pseudonestor xanthophrys*), a vital captive breeding population, essentially a backup for the vulnerable few hundred birds left in the wild, a chance encounter with an unattended nest enabled the collection of a few eggs which became the start of a captive-raised population, which then became a thriving captive breeding group (H. Mounce, personal communication). Lessons were learned from the previous missed opportunity with the po’ouli, where the only brood of eggs ever observed hatched, but the chicks perished in poor nest conditions. For the po’ouli, intervention could have been possible, yet these turned out to be the last ever juveniles of the now-extinct species (Groombridge et al. 2004). Doing the right things at the right time is a vital aspect of successful process management. Without this correct thinking, there is only sincere effort, which even when done with good intention, rarely helps.

### The principle of ‘acting fast’

Lessons learned from successes and failures in Mauritius, New Zealand, the United States, and Australia have demonstrated that acting fast to save species provides opportunities for recoveries which might not seem plausible (Martin et al. 2012; Jones & Merton 2012; Jones & Copsey 2018). Norman Myers famously suggested prioritisation of action on species to be considered using a triage approach (a perfectly plausible approach used in military field medicine and now commonly used in emergency healthcare practice). Under Myers’s proposal the Mauritius kestrel as a specific example was written off as being a species not worthy of attention and that “We might abandon the Mauritius kestrel to its all-but-inevitable fate, and utilize the funds to proffer stronger support for any of the hundreds of threatened bird species that are more likely to survive” (Myers 1979 p43).

Yet the Mauritius kestrel has been recovered and not at any enormous cost. Moreover, the experiences in Mauritius provided learning which has informed innovation with other species in different locations and contexts. The Mauritius programme was responsible for conserving three out of ten bird species likely to have otherwise fallen to extinction before 1994, and three of 22 species from 1994 to 2000 as measured by a decision to down-list the species’ status on the IUCN red list (Butchart et al. 2006). Perhaps, this disproportionate success was because many other programmes had still to learn from the management philosophy seen in Mauritius.

Fortunately, some programmes have since observed and learned, have applied that learning and have learned from successes in their own practice. The approach has been shown to be valuable in other situations such as the rescue of the orange-bellied parakeet (*Neophema chrysogaster*) in Australia (Martin et al. 2012) and the California Channel Islands Fox in the United States (Coonan et al. 2010). On reflecting on these experiences, Martin et al. (2012) identified that the specific principle of ‘Acting Fast’ is fundamental to the success of conservation of species under threat.

What does this tell us about leading and managing change in conservation?

What is identified is that long preliminary studies and the drafting of highly developed plans and engagement of infrastructures of project collaborators, permissions, and funding only prevent the possibility of acting fast. These are all elements which copy the conventional ‘Business Planning’ approach to organisation, namely identify the problem, research its background,

devise methods to address the problem, plan the approach (responsibilities, resources etc.), organise budgets, organise people, obtain equipment and materials, and then implement the work. Once in place, the problem may sadly have already passed by (Martin et al. 2012) as was the case for the Christmas Island Pipistrelle (*Pipistrellus murrayi*) which went extinct and largely was also the case with the po’ouli in Hawaii which was down to a handful of very old birds before interventions were agreed (Groombridge et al. 2004).

To consistently be able to act fast, we need a better way of leading.

### **The principle of continuous improvement and innovation**

Chapter 6 described the continuous improvement cycle or Deming Wheel which involves check–plan–do, namely understand (from data) the situation, plan an intervention, implement it, then repeat (check the situation – has it improved?). This repeating cycle adapts method as data informs the process. This approach is a well-tested philosophy, based on the scientific cycle, and used in many areas of human activity, even if it is perhaps somewhat underappreciated.

It is interesting that more recent explorations of innovation (Reis 2011) have seen this same cycle re-emerge as the most effective way to drive improvement at low cost and high speed.

**Innovation** is the process of bringing new ideas into application, or developing new methods for old problems, or old methods to address new problems. It is an exploration to achieve a defined goal. *Innovation is a process that enables goals to evolve and change, being adapted according to need.* Conversely, project management methodologies will not drive innovation but instead stifle it.

**The learning cycle is different in philosophy to project management approach.** Learning and innovation cycles (e.g. in product development) are equivalents (essentially following the Deming Wheel or Shewhart Cycle), in a dynamic approach informed by data. Conversely, project management uses prior assumptions to define plans.

What we tend to find in project management is the use of learning reviews to capture issues at each stage of the project (Clayton 2012). This is a post-hoc analysis (i.e. occurs after the event). With continuous improvement you *seek to collect data at (or very near to) the point of implementation* to get a signal of success or failure, so it is a real-time monitoring process (Reis 2011).

With **an innovation and improvement approach** monitoring and evaluation is built within the processes of work; the results inform the next step which produces new results and so on. By contrast, with a project approach, the monitoring and evaluation tend to take place after the event (i.e. through a review of results which is conducted after the event). This is observed even within ‘adaptive management’ approaches, where committees convene to discuss results and make decisions on next steps (Cundill et al. 2011). The simple act of moving review and analysis away from the work slows the process down and makes it less responsive. Also, the management by review process makes it difficult to justify small experimental or ‘pilot’ studies.

**Applying a learning cycle to practical conservation** requires leadership. The allure of project management is so strong that people tend to default to it in all but the most mundane effort to implement improvements. To overcome this, as a leader you need to instil the following understanding in the minds of your teams:

- Project management requires justification of approach before planning and implementation.

- Innovation means immediate ‘testing by doing’ (ideally informed by prior data on current state) followed by retest of impact and decisions on repeating, adjusting, ceasing, or upscaling.

This involves a fundamental value-shift for the team from a ‘planning culture’ to an ‘action culture’.

To innovate, teams need to trial approaches in low-cost/low-risk settings (where possible) and measure the impact of the approach to inform a decision to continue, adjust, or upscale.

**Low-cost trials are fundamental to innovation.** There should be a very small resource commitment (people, time, materials, budget) to devise and implement a method under trial. Only once data reveals the success of the method should it be upscaled. Upscaling is itself a trial, so it should be kept at low cost and its subsequent results used to inform further upscaling. Investment follows data, so risk is minimised; there is only a commitment to invest in the next stage when the previous stage in the cycle has succeeded. Once scale is large enough to feature in a budget, a suitable argument and justification (based on all the previous test data) are available for such an investment decision.

Conservation programmes which have small pots of money to invest in these types of experiments will be well placed to accelerate improvement through innovation. Examples of this are present in the nationally based initiatives tested by in-country representatives for The African Cheetah Conservation Initiative. The advantage of this approach is that geographically local or species-specific approaches can be examined and tested for veracity before wider implementation.

**A fundamental in leading innovation is not to blame.** This approach to improvement and learning effectively makes failure redundant. An innovation that does not fulfil intended requirements provides learning (understanding what is *not* worth doing). If we slip in to blaming people when results do not arise as we had hoped, we will crush innovation (see Chapter 2).

### **Interventions to change human behaviour towards wildlife and natural resources**

Social science efforts to understand societal, cultural, and behavioural aspects of conservation and interventions should be designed to have an impact on the psychological pathways which influence behaviour. Gone are the days when we have time, money, and energy to undertake interventions such as educational outreach just because it is ‘a good thing to do’. Outreach needs to influence social norms (and education may well be important in this, of course), but outreach also needs to identify opportunities where people want to engage with conservation challenges. Conservation organisations need to build trust in local people, even if the values, motivations, and aspirations of the project team differ from those of local communities.

#### *A reminder about the psychology of behavioural change*

As has been mentioned in Chapter 7, understanding the factors which interact when people convert their attitudes (and motivations) into demonstrated behaviour is complex. A linear cause–effect process, still often assumed in many conservation interventions, is rarely applicable by observation, and the complexity of response can be explained by psychology (e.g. see Ajzen 1991).

For example, in West Africa, fish is considered as a commodity food and bushmeat is a less desirable alternative (Brashares et al. 2004). Nevertheless, as might be expected, when fish stocks are low and prices rise in markets, local people adjust to buy and eat more bushmeat which puts pressure on availability as wild stocks become scarcer. However, somewhat

unexpectedly, as wild bushmeat becomes scarcer, rich people see it as a delicacy (it becomes a desirable social norm to eat bushmeat), so purchase more of it, maintaining pressure on the now-depleted wild species (Rowcliffe et al. 2005). The price of bushmeat rises, making it more attractive for locals to hunt the already depleted stocks. It is an ‘illogical’ pattern of behaviour, yet its consequence is that simple interventions to prevent availability of bushmeat (such as providing cheap alternatives to fish such as goats or chickens) simply do not work. There is no cause–effect relationship in the dynamics of this market system.

Conservation work concerning the behaviour of people towards species, natural resources, and landscapes must take account of people’s beliefs, attitudes, knowledge, identity, social norms, perceived behavioural controls, external controls (such as rules or law enforcement), and their behavioural choices (see Chapter 7). We need to move beyond naive cause–effect expectations and consider different ways to understand and influence human behaviour.

### **Using ‘theories of change’ to justify plans and strategies**

A recent approach to designing conservation initiatives, taken from the human development sector, is the use of Theories of Change (Rice et al. 2020). Weiss (1995) defines a theory of change as a theory of how and why an initiative works (interestingly Weiss paraphrases the famous Kurt Lewin quote, often used by Ed Deming, in the title of her paper ‘Nothing as Practical as Good Theory’). The Theory of Change is both a way of thinking (using mental models to identify options to leverage change in a given situation) and a methodology (a tool for collating ideas as written elements to include in plans and strategies). The Theory of Change process can be used to identify routes to desired outcomes (planning and implementation) and also how change has happened (evaluation) to enable testing of effectiveness (Rice et al. 2020).

A number of organisations featuring in examples and case studies in this book consistently use Theory of Change as part of their planning processes (e.g. Durrell, Dahari, Wildwood), and the method features strongly in wider research literature (see Figure 11.2). The Theory of Change involves mapping predicted results chains and assumptions behind actions and developing objectives and indicators to monitor and evaluate different stages of the project planning (Margoluis et al. 2013; Brest 2010; Stebbings et al. 2016). The Theory of Change mapping process brings together existing evidence and consideration of wider contexts, such as policy, economics, and social factors that may influence project design, its operation, and its results. A Theory of Change (which is specific for a given intervention in a particular context) is usually created as a visual diagrammatic scheme by a working group of well-informed people. The scheme includes potential links, risks, goals, and assumptions relating to intended actions and outcomes. These details are useful for developing goals, actions, and indicators (Kapos et al. 2008), subsequent plans and future methods of evaluation (Dhillon & Vaca 2018).

### **Governance structures, authority, and ‘management by exception’**

Governance is essentially about levels of authority and accountability. It is conducted by managers, directors, and trustees (the latter being independent individuals who ensure that the organisation retains its focus on core purpose, financial sustainability, and legal compliance). Governance is relevant in government agencies, businesses, research and education institutions, non-government organisations, charities, and collaborative programmes.

Poor governance is characterised by bureaucracy which stifles the speed of work, by decisions being retained at senior levels which prevent progress by operational teams and often adds unwanted work of reporting and presentations, which may be inconveniently timetabled (by protocol or by preference of senior leaders) during otherwise important periods of operational



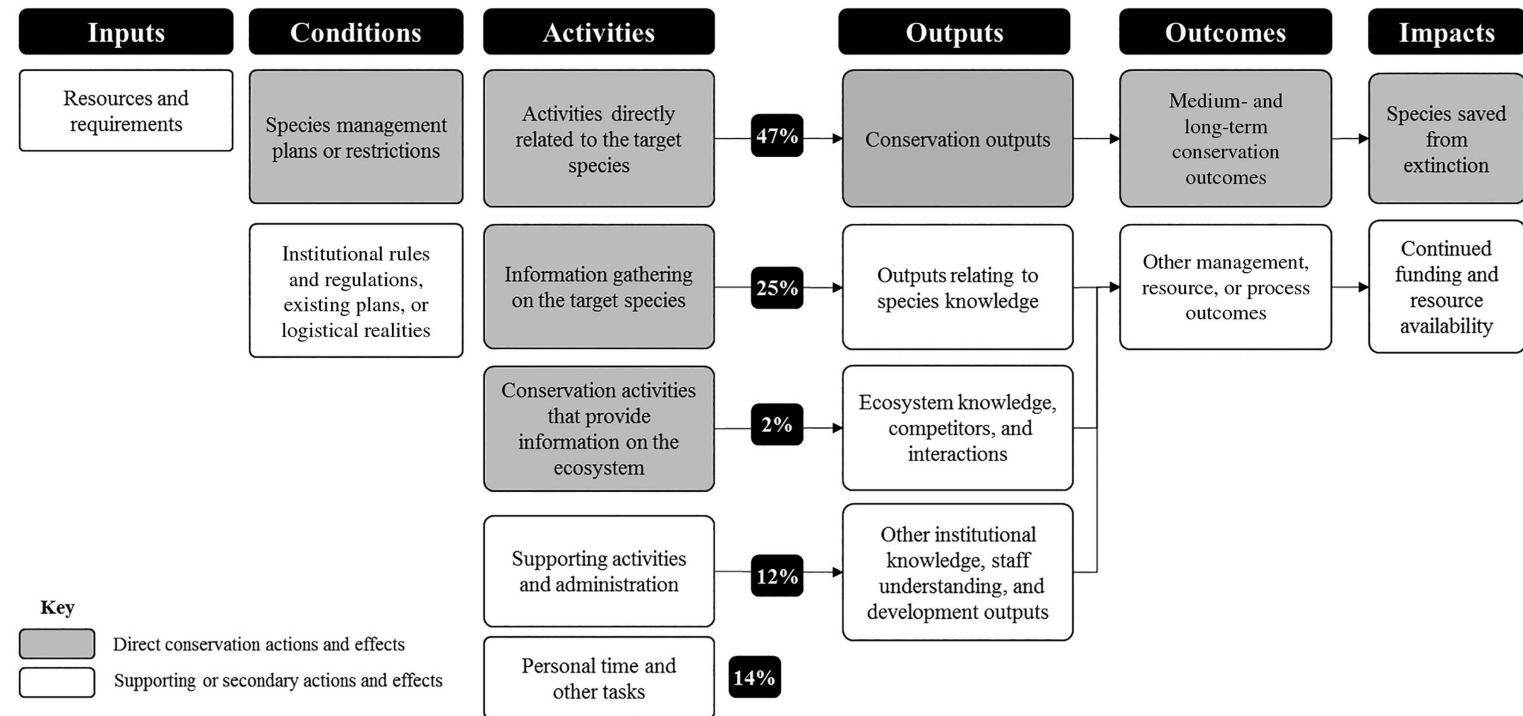


Figure 11.2 An example of a simplified Theory of Change schematic addressing a bird species recovery in Mauritius, the Mauritius Fody (*Foudia rubra*), as developed by Stebbings et al. (2016).

work. Bad governance pulls people off the job of conservation, good governance enables people to act fast and professionally for conservation (Martin et al. 2012). Bad governance is either too distant from the realities of work or gets too close and results in “micromanagement” of otherwise perfectly capable and autonomous conservation professionals (who get frustrated by this close supervision and become limited in what they can do).

Good governance provides oversight and review and an outside-in perspective, which examines the purpose and effectiveness of work, for example during formal project reviews (Clayton 2012). Good governance involves senior people who understand the work and who show interest in the people doing the work. Key elements which steer the effectiveness of governance are role clarity, levels of authority, decision-making processes, and meeting/visit protocols.

### ***Governance structures (who does what)***

Governance includes all decision-making and authority down to the lowest level – even a field-worker has to represent the organisation if they meet a member of the public in the field or in a public meeting. The differences between individuals’ responsibility for governance concern their role and level of authority within the organisational structure.

An ideal generic governance structure is summarised in Table 11.1. A simple board–manager–staff structure keeps the organisation flat and decision-making and paths of

*Table 11.1* An ‘ideal’ governance structure for a conservation project.

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#### **Project sponsor (sometimes called the chairperson or non-executive chair)**

- Leads the project board
- Provides timely decisions for the project manager
- Clarifies decision-making framework
- Provides resources, engenders trust
- Engages stakeholders/arbitrates between stakeholders
- Leadership on culture and values, owns the ‘business case for the organisation’

#### **The board (led by the sponsor it is a trustee board, board of directors, or management board)**

- May include ‘key users’ (perhaps communities/local representatives)
- May include ‘key suppliers’ (e.g. technical expertise/equipment/resources)
- Governs project risk, including agreed budgets
- Works with other sponsors and ensures continuity of sponsorship
- Focuses on realisation of benefits
- Approves policy and strategy (‘sign off’) and relevant audit or organisational evaluation
- Ensures that standards are maintained, e.g. ethics, health and safety, legislative compliance
- Provides decisions on exceptional items raised by the project manager
- Recommends opportunities, provides assurance, feedback, and lessons learned

#### **The project manager (could be a manager, chief executive, general manager, director general)**

- Selects the project team
- Draws up project plans
- Ensures work is completed to quality, time, and cost (budget)
- Oversees health and safety and ethics of the work
- Reviews policy and strategy

#### **Project team members (the working staff)**

- Deliver the work
  - Recommend improvements to the work or project plan
  - Responsible for health and safety and delivery of ethical work practices
  - Ensure work is conducted in line with organisational or project values and principles
  - May have contact with stakeholder representatives, local communities, or the public
  - Implement policy and provides feedback on gaps and improvements
-

communication clear (Clayton 2012). Clearly, many variations of this ideal structure exist in reality, but the principle of layers of authority and close proximity of decision-making to the work are fundamental.

### ***Management by exception***

Governance should aim to push decision-making authority to the lowest level of competence to make such decisions. The project directors should not be making decisions on minor details of operational work if qualified people doing the job can make such decisions.

The easiest principle to adopt across all levels (supervisors, managers, directors, board) to ensure that this occurs is '*management by exception*'. This can be described as:

- Day-to-day management is the responsibility of the project manager (as delegated by the project board/steering group and described in the project manager role description).
- Boundaries of responsibilities are set in the job role as 'tolerances', defined by:
  - **Time** (e.g. cannot make any decision that changes the project timeline or cannot make purchasing decision relating to next year's budget until budget is agreed).
  - **Cost** (e.g. budgeted capital expenditure up to \$500 made without board approval).
  - **Risk** (e.g. no decisions on euthanasia of captive animal without manager approval).
  - **Scope** (e.g. work to be conducted in the boundaries of the Northwest National Park).
- If action maintains progress within the agreed tolerances for a project stage, then the job-holder proceeds without having to refer to the level above.
- Outside these tolerances is an *exception*.
- *Exception decisions should be referred upwards* to the board (or senior management); for example after a road accident, the need for an unplanned decision to purchase a new vehicle.

Under 'management by exception' the manager (whether project manager, chief executive, or general manager) can, on a day-to-day basis, get on with making decisions and implementing work without having to bother the board members nor having to take out time from normal work to do so. If an exception occurs, by referring-up the decision (which would be made by the board) the manager covers their own liability and risk (e.g. risk that they might break the budget).

### **'Board assurance': policy, strategy, decision-making, reporting, budgeting**

A key governance role is played by the board who oversees the whole programme of work, financing and outcomes of the organisation (whether that organisation is a stand-alone project, partnerships, or an established organisation). This governance role includes the following requirements which are relevant in large organisations or even in small projects.

### ***Reporting processes (assurance)***

Senior managers and board members in any organisation need to be assured of correct functioning of the organisation whilst not being too involved in supervisory management (which should be conducted by professionals). If work is delegated to the correct level, then the outcomes of that work will need to be reported in a reasonable (not too overbearing or burdensome) manner. This 'Assurance' can take specific forms, which should be explicitly agreed by the board as their requirements for what should be reported to them ([www.good-governance.org.uk](http://www.good-governance.org.uk)). Senior managers must be *assured* (i.e. the provision of 'certainty' through evidence) through triangulation of information that indicates what should be happening is happening and also indications that

upcoming work will meet the requirements of the project. These are factual requirements. This is different from reassurance (the need to offset doubt) which trustees may request to provide comfort and reduce worry. Reassurance concerns the well-being when one is told ‘all is well’ (often by experts) rather than through solid evidence. Reassurance feeds belief, but a fact-based organisation needs *assurance*. However, board members must respect that requesting too much assurance will make planning and preparation extremely burdensome for the team. Of course, too little assurance will mean that senior managers will not have adequate oversight of the progress being made. Good trustees will get this balance right.

### ***Policy and strategy***

A ‘Board Assurance Framework’ is a description of the collection of organisational policies in a Policy Framework (which outlines how work will be done, including mission, vision and values, policies, strategies, plans, and theories of change), the arrangement of governance meetings (where work and results are discussed), audit (evidence of effectiveness of work and policy). These elements are overseen by the board members. Clearly, a key role for senior managers (i.e. the board) involves ensuring that there is alignment and consistency across all of these policy and strategy elements, plus initiating any action within the organisation to rectify where gaps and inconsistencies occur. (Note that we are considering organisational policy not governmental policy or legislation in this respect.)

*Organisational policy is written by the professional managers and technical staff doing the work* (e.g. employment policy, health and safety, ethics) but is reviewed and authorised by the board with the agreement of the general manager. Updates will be influenced or sometimes driven by external requirements (e.g. changes in the law) or internal feedback from staff or work incidents.

*Policy is implemented by the staff* as they carry out their roles. Staff are also expected to provide feedback to their manager where policy requires change or improvement.

*Managers should regularly review and update policy* which is authorised by the board at meetings. Wider strategic review (such as the purpose, aims, goals, and plans of the organisation) will also be regularly reviewed on a timetable agreed by the board. The creation and writing of strategy is a senior management job, but the best leaders are collaborative in this process with wide consultation of staff and stakeholders and engagement of those parties in construction (depending on the political, social, and technical constraints of the working context). The final sign-off for the agreed strategy will, however, be made by the board.

### ***Project review and decision-making at project phase ‘transitions’***

When a project is being managed over time, there are regular occasions when senior managers (or trustees) will need sight of the progress being made and to give authority for assignment of resources and permissions. The best project plans are split into logical phases of work (see Chapter 10), with each later phase dependent on the completion of previous phases.

The logical and most efficient time for the board to meet and review project progress is at (or towards) the end of each phase, so that they can give authority to the project manager to move the project into the next phase. This point in time is a ‘Phase Transition’, and at this moment it is possible for a review of:

- Points in a project when continuation is decided (e.g. by board/steering committee)
  - *Go ahead/no go/kill the project/hold (wait)/recycle/conditional ‘go’ (see later)*

- Deliverables required at that point (start/end of phase)
- Criteria upon which to judge the project (questions or metrics)
- Outputs – decision on ‘go’/‘no go’ etc.
- Criteria for judgement might include ‘Musts’ (yes/no) and ‘Shoulds’ (variable)
- A useful process to avoid committing resources to weaker projects

The project sponsor, board, and project manager must be clear about transition phase criteria at the outset and before each subsequent phase. The management board can agree the format of those decisions which they will undertake at project phase transitions as follows:

**Go ahead:** the manager has approval to move onto the next phase of the project as planned.

**No go:** the project will be stalled for the foreseeable future (but not closed down).

**Kill the project:** it is not viable so is closed down with immediate effect and resources reallocated.

**Hold (wait):** do not proceed until a specific external situation is met (e.g. passing of a hurricane).

**Recycle:** return to work on the previous phase over again (e.g. repeat captive breeding).

**Conditional ‘go’:** the project will proceed with certain specified conditions to be met in future.

### ***Budgeting and financial oversight***

For *investment or project proposals* (including commitment to major project budgets), the lower levels of management will be required to prepare and submit proposals. The request to prepare a proposal provides the board with assurance that the manager (or management team) will consider the idea carefully. The board can discuss and set fairly general expectations for the proposal and perhaps some technical specifics (boundary, aims, ethical issues, potential partners, perhaps a ballpark overall budget figure, etc.), but, unless asked by the manager, the board do not need to go into minor details of how the proposal will be prepared by the professional team – this would be just an annoying distraction to the manager or team doing the work. Thereafter, the details of the proposal will provide assurance that the plans *have* been properly considered and a go/no go decision can be made. At this point the board can examine and critique the details of the proposal.

For budget agreement, the board should set a timetable for when a draft budget should be submitted to them for consideration and also a deadline for when the budget needs agreement. In addition, there may be specific objectives or criteria which the board need to impose on the project manager, such as reduction in costs. Thereafter, the board expects the manager to produce the budget, and the board members comment on the budget (usually at board meetings) and refer back to the manager for changes.

### ***Partnerships and memoranda of understanding***

A memorandum of understanding (MOU) is a useful tool for documenting a set of agreements between two organisations, signed by relevant representatives of each organisation. The agreement allows both parties to adopt the agreement or to withdraw from it. Usually, these agreements cover aims, objectives, scope, responsibilities, and authority of each party, resources allocated to each party, data-sharing agreements, and liabilities. An MOU usually needs preparation with the help of a legal professional to ensure that all relevant requirements are included, although it is not a legally binding document (such that parties could sue each other), unless some specific elements covered by local legislation are included, such as data sharing of copy-right information or requirements in employment contracts.

Where a similar type of partnership is expected to be repeated again and again, a generic MOU can be developed which can be updated and signed by subsequent parties under the agreement, for example when hosting different researcher organisations at a field station.

Memoranda of understanding are common in multilateral and multinational collaborations where legal arrangements would be too complex and costly and restrictive to develop. However, there is a reputational element attached to MOUs, so they should not be undertaken lightly. An organisation that regularly fails to fulfil expectations within MOUs will build a reputation of unreliability which may be unattractive to potential collaborators.

For more complex work, *partnership agreements* are appropriate. These require more detail and include legally binding responsibilities, for example in the sharing of funding, staff, or specific legal or financial liabilities relating to the work. These will always be prepared by legal professionals and signed on a legal basis. If a partnership agreement is violated, one party may be liable to legal action from another. Partnerships, and with whom we wish to engage in such agreements, are important where there are significant resources or reputational risks at stake.

### **Financial processes to support effective governance (budgets, cashflow, comparisons, total cost)**

This book is not focused on delivering knowledge on financial processes; however, some elements need to be highlighted for a leader's further consideration and learning. A leader needs competence in understanding these elements in the financial status of the programme which they head up, since finance may help or hinder the progress of the work and the level of innovation and change that is possible. Seeking expertise and advice from financial professionals in these matters to build one's own understanding is a worthwhile pursuit.

**Budgets:** are an important tool to inform leaders where money is spent (expenses or expenditure) and where income is received (funding, sales, donations etc.). If this is planned out on a monthly basis you can use the information to monitor whether your planned expenditure and income is being seen in reality, or whether the expenditure and income is out of phase (i.e. occurring earlier or later), or is higher or lower than expected. Ideally, you will have financially qualified staff who can record and advise you on invoices received and paid, expenses (receipts), salary payments, income, bank account status, and so on.

Some project leaders have to carry the burden of financial management alone. If this is the case, getting a trusted staff member to know the situation and to use as a sounding board is helpful and, should you be absent for some reason, they can be given appropriate authority to cover these details in your absence.

**Capital budget:** is required on any major capital purchases (e.g. vehicles, computers) which have a life of several years. This budget is likely to be agreed separately with your governing board or director, however on short projects, the capital expenses may be included in your annual budget expenses. Some equipment may simply be loaned on a temporary basis and needs to be logged in an asset register (see later).

**Cashflow forecasting:** This element of financial planning asks the question – are we going to run out of money to pay the bills (and our people)? It involves a simple calculation month by month (or weekly) of the projected bank balance based on opening balance of the month plus budgeted income for the month, minus budgeted outgoings for the month. If the cashflow for the month is a positive (+) figure, you have enough cash, if it is a negative (–) figure you will be in arrears (and will be drawing on your bank overdraft if arranged). If a negative cashflow is forecast, there are a few choices that can be made. Clearly, the choice made reflects your leadership ethos, so should be considered with care:

- **Use the bank overdraft or credit cards:** but these options merely push the problem to next month and may incur charges, so use with care. If overdraft is free, then it is a sensible option.
- **Defer non-pending payments:** this could be done within normal credit arrangements (e.g. '30 days to pay' terms stated on the supplier's invoice).
- **Defer payments which need paying now:** this could be negotiated as a late payment with creditors. Do not choose 'not to pay' without consultation as this will erode suppliers' trust.
- **Find a short-term loan:** this has advantages if you know you have money coming in which can pay off the loan. If not, they are a bad idea as interest rates can be costly, creating more financial problems in the future.
- **Find short-term funding:** appeal to a donor, sponsor, local business, or run a social media appeal for emergency funding. Some major donors can be sympathetic to this sort of problem.
- **Defer salaries:** Not a best option by any means, but possible (again pushes the problem to next month so only do this if other funds are expected). There are two possibilities: (i) only apply to the management team salaries and (ii) freezing all staff salaries, noting this can have major consequences for people's personal lives. Covid-19 forced situations like this on some organisations – see whether government grants or loans can be accessed to avoid the problem.
- **Lay off staff:** jobs could be made redundant, or non-contract staff could be told that the job is no longer affordable. Do not use these options lightly as you can develop a bad reputation.
- **Sell equipment:** this rarely provides cash quickly enough but may be possible with online 'e-markets', but of course it should not be done on any task-crucial equipment. It is important that you have the authority to sell assets (materials and equipment), and if you do not, you need to seek permission or authorisation from your project donor/director/board of trustees.

**Consideration of 'Total Costs':** A temptation in managing finances is to focus on efficiency and savings or 'cost cutting' in management-speak. This is a perilous path to follow. As a leader you are interested in total costs: the total cost of X in delivering value to my programme.

- A cheap vehicle which is unreliable and costly to repair may be poor value with a higher total cost over its lifetime than a more expensive model. All elements of cost must be considered.
- Temporary contract staff may be cheap in the short term, but if they are unreliable and critical tasks are not completed on time there will be significant total cost implications for your project.
- A well-qualified worker may cost more to hire, but their contribution and attitude may mean they are better value for money than a cheaper worker who needs training, coaching, and mentoring.

**Asset register:** it is useful to hold a list (e.g. a spreadsheet) of all the assets of the project, their value (at time of purchase or insurance value), their cost (bought, rental, gift, loan etc.) and from whom and any other details (maintenance/servicing requirements and costs, return dates, insurance conditions etc.). If the project lends equipment to another organisation this should be recorded in the same spreadsheet with reference to supporting documentation, emails, agreements, dates etc.

**Profit and loss account:** at the end of year the organisation can issue a profit and loss account which is a summary of expenses and income summarised for the year (this may be a calendar

year or a financial year, such as April to April or September to September). A profit or surplus accrued by year end can be included as an income line for subsequent years or placed in reserves (such as a savings account) and will be recorded on the balance sheet (see later) as an asset. Some funders and NGO head offices and government departments ‘claw back’ surpluses, taking unspent money back from projects to put in their own funding reserves. You need to be clear on this policy when you run your own programme, particularly if year-end figures do not take account of an order that has been delayed, such as payment for equipment needed next year, which has not been completed.

**Balance sheet:** at year end, the project can quote its balance sheet, this may be a requirement of stand-alone programmes and projects, but for those within an NGO or government department will probably not be required (although accountants will request figures for their own calculations). The balance sheet summarises all programme assets (what you own, such as vehicles, equipment, facilities, or cash holdings) and liabilities (what you owe other people, e.g. loans, unpaid invoices). The point of the balance sheet is that it provides a snapshot which explains what your programme is accountable for in financial terms (what it owes or what assets it is responsible for).

**Project cost calculations and savings:** may need to be justified or additional resources requested to support your project (see ‘compress the plan’ in Chapter 10, or the example in Black 2018). This involves either changing quality and/or quantity of work (e.g. setting larger, more effective bait grids or covering a larger area with field surveys) or speeding up the work (to meet a deadline or upcoming seasonal pressure). If you know the average cost per project day (in dollars) over the total project, and how many days (D) will be saved, a total saving can be calculated (\$D). If you then subtract this total saving from the additional project cost \$C (e.g. the cost to hire extra staff), then the benefit is calculated as:

$$\text{total saving} - \text{total additional costs} = \$D - \$C = \text{total benefit in } \$$$

**Financial ratios:** are not normally used in conservation organisations, but in some situations funders like quotes on the ‘value’ of their interventions. For example, we see figures quoted in the literature for the ‘cost of each successfully released black-footed ferret’ based on total project cost divided by the number of ferrets released in that year or total project costs over ten years, divided by the number of ferrets released over those ten years (Biggins & Godbey 2003). As a leader you should be sceptical about these kinds of measures, as they can be used against a project unfairly (e.g. if the ferret project spent vast sums on habitat restoration and recovery of endangered prairie dog populations). There is often a sense of self-serving jiggery pokey (suggesting good value or bad value, depending on one’s perspective and bias) when numbers are used in this black box fashion!

### **Organisational design – conservation organisational archetypes**

Various types of organisational structures are used in the design and subsequent evolution of conservation work. These structures follow:

- The type and duration of work
- The funding/financing of the work
- The location of the work
- The local/national legislation concerning legal entities (e.g. organisations, charities, NGOs)
- Accountability (in law, to funders, in partnership agreements etc.)



Several typical organisational arrangements include:

**Intervention by project** is a historically common approach (especially in species conservation), often based around a discrete funding period. The Red-Billed Chough reintroduction project managed by Wildwood in the UK is one such example ([www.wildwoodtrust.org/](http://www.wildwoodtrust.org/)). Most modern projects involve a 'legacy element' with handover to local management or the establishment of a new organisation to continue the work after the project itself has reached the end of its lifecycle.

**Intervention by programme** is a common long-term approach, usually involving cycles of funding from a variety of sources to sustain the work. The California Condor Programme in the 1980s and 1990s was one historic example (now led with statutory input by the US Fish & Wildlife Service, but as an international multi-agency partnership). The Pygmy Hog Programme in India is another example, although in recent years it has evolved into a more complete organisation with responsibility for long-term management (see later).

**Long-term conservation management** is often undertaken by organisations established under previous project regimes, such the work of the Mauritian Wildlife Foundation or Dahari (Comores), which oversee a range of different multi-decade commitments across their respective countries. Blue Iguana Conservation in Grand Cayman (<https://nationaltrust.org.ky/our-work/conservation/blue-iguana-conservation/>) now sits as a discrete organisation within the National Trust and had evolved out of the previous long-term partnership programme.

**Multi-agency collaborations** are common especially in trans-boundary work (see the California Condor programme, [www.fws.gov/program/california-condor-recovery](http://www.fws.gov/program/california-condor-recovery)). On a landscape level, the Kavango Zambezi Transfrontier Conservation Area is a complex multinational multi-agency initiative ([www.kavangozambezi.org/about-kaza/](http://www.kavangozambezi.org/about-kaza/)).

**Statutory management** is typical in the management of national parks (e.g. National Park Authorities) but can also be applied to specific environments, for example government authorities responsible for rivers, waterways and wetlands, forests, or in some cases specific environmental concerns like departments for desertification or deforestation.

**Organisations and institutions** are often established to take responsibility for specific causes. We have zoos, research institutions, wildlife trusts, special interest groups, landowning bodies (such as national trusts), and other membership interest groups. These are usually set up as legal entities (businesses, charities, quasi-governmental, or non-governmental organisations).

**Network organisations** are also now proving to be a useful arrangement for large multinational landscape initiatives, where a core central team support seconded employees who are otherwise employed in institutions in each partner nation. The Africa Range-Wide Cheetah Conservation Initiative (<https://cheetahconservationinitiative.com/>) is one of the best current examples, covering a host of countries across vast landscapes, as well as transboundary and global issues for the species.

**Community-managed organisations** are a long-term local solution to conservation management. These may be wholly autonomous, such as running a community conservation area or may exist as self-managed units within a wider network organisation.

There is no one best way to organise conservation work. The structure has to follow the logical organisation of the initiative. The initiative has to reflect the design of the work, based on the purpose of that work, the processes involved, and the boundaries of the work, as shaped by reasonable constraints of its context (geography, law, resources, threats to the species/ecosystems etc.). Organisational structure is a consequence of organisation design – it follows the requirements of the organisation and not the other way around.

### **Case Box 11 Impact of leadership effectiveness on community interventions in the Indian Ocean**

Two landscape conservation organisations were compared by Amavassee et al. (2022) to identify differences in practice and results. Both organisations were based in Indian Ocean island nations.

One organisation, based in Mauritius, had been active in the field of island restoration ecology, specifically aiming to restore a dry forest ecosystem using an inclusive ecosystem-based approach and raising awareness in local communities with a Biodiversity and Environment Education (BEE) Programme. The organisation is considered an exemplar in evidence-based practices in community-based forestry recovery. Its policies and strategies prioritise the use of scientific knowledge reflected in the project's purpose, aims, and goals to address habitat degradation at targeted location. There is a clear rationale behind the selection of the conservation processes. For instance, the organisation uses a classification system to virtually reconstruct the original vegetation of the site, determining suitable species for reintroduction and key ecosystem processes, and identified all risks and threats. On-site management of staff is effective, and people are loyal and keen to take on more responsibilities. Leaders have a hands-on approach, allowing staff to participate in decision-making. As for programme results, targets are being achieved and the project's financial plan is sustainable financially for the coming years.

Monitoring systems are in place to ensure species adaptability, and major threats (fire and invasive species) appear under control (evidenced by an 80% survival rate of planted reintroduced native species and a significant decrease in areas burnt in wildfires). Of 87 species planted, 71% are IUCN red-listed indicating the biodiversity value of the work. However, livestock encroachment remains a problem, needing cost-effective strategies and prioritising of funds to create a protected conservation management area (CMA). The monitoring of indicator species is not clear and the organisation needs assistance to develop appropriate surveys to monitor biodiversity recovery. There is also a poor level of support from communities living near the project site. Overall, the programme's impact on society is limited in scope, despite the project being highly visible in the media and several corporate groups are interested in partnering with the organisation.

The educational process is tailored to the needs of various groups. People and resources assessment identifies that the project staff are highly skilled, have a high level of trust and responsibility, and have access to training. Finally, the leadership team is committed to getting the work done, has earned the trust of fieldworkers, and supports the learning and improvement of the individual staff members while actively engaging with other stakeholders.

How did this observably effective organisation in Mauritius compare with a similar organisation in Comoros that had been pursuing similar areas of work for a similar time period?

The comparison of the two organisations, summarised in Figure 11.3, shows that *the Comoros organisation's profile was significantly stronger*. This was despite both organisations' core operations, namely 'core conservation processes' and 'resource management' having a similar profile.

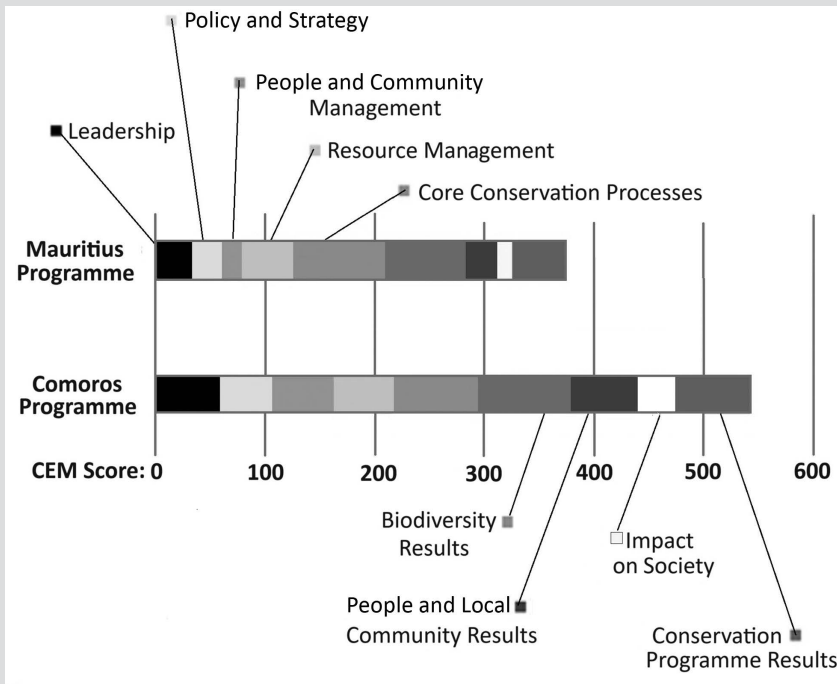


Figure 11.3 Comparison of the organisation profile of two community-based forestry recovery programmes in the Indian Ocean. For both organisations, the profile sections on the left-hand side related to *approaches* taken, and on the right-hand side different areas of *results achieved*. The Conservation Excellence assessment profiles (from independent evaluations) illustrate how the higher scores in approaches to leadership, policy, and strategy in the Comoros organisation is also reflected in the Comoros organisation's higher scores in biodiversity results, people and local community results, impact on society, and conservation programme results.

### In which areas was the Mauritius programme falling short?

The results of the Comoros organisation (biodiversity results, people and community results, impact on society and programme results) were assessed as being of higher quality and greater sustainability (i.e. actual years of positive results being achieved).

### What appears to make the difference?

**Leadership** is central, and this goes beyond the operational leader or general manager. It is the overall **governance** and credibility of the programme that has an impact. The leadership **ethos** in the organisation and its desire to build trust with local communities are observable in the way in which it develops relationships with land users and its active work in developing a high degree of involvement and support by local people in the work. When looking at the stronger profile of the Comoros organisation, it is worth noting that its score above 500 points on the CEM is equivalent to a good organisation in *any* sector of business, commerce, industry, or public service.

## **Chapter 11 reflection – innovation and change management ideas**

Ideals of change, innovation and impact (on species and ecosystems, involvement of local communities, development of partnerships) are all influenced by governance structures in organisations, who is in authority, their biases and expectations:

- Change can be passive, active, project-driven or process-driven. People's views on how things are changed will steer the governance culture of a conservation organisation.
- Project-driven change is not a good method for intangibles such as changing human behaviour or beliefs about wildlife or resource use.
- Innovation cycles and experimental approaches which are well suited to behavioural and environmental change are seen in the best conservation work but are uncommon.
- Development of a 'Theory of Change' for an intervention, as a schematic which describes the intentions, planned actions, intended outcomes and impacts, is a useful conceptual tool.
- Governance (including who governs and their expectations) steers work design, implementation decisions, and constraints experienced in a conservation organisation.
- Governance includes policy, strategy, decision-making, reporting, finance, and partnerships.
- Management by exception frees staff to do their work and maintains control of key constraints (money, time, priorities) through suitable levels of decision-making authority.
- A leader's basic financial understanding should include budgets, cashflow, costs, assets, profit and loss, balance sheet, project cost calculations, and financial ratios.
- Conservation organisations take many forms and evolve in structure over time.
- The work (purpose, processes, boundary) should define organisational structure, and *not* vice versa.

## **Exercise 11 – What are the governance structures in your project/ programme/organisation?**

Reflect on the actual governance arrangements in your organisation and diagnose their effectiveness and where improvements can be made.

- (1) What does the structure look like?
- (2) How does the structure work?
- (3) What are the advantages?
- (4) What are the disadvantages?
- (5) Are any assumptions apparent?
- (6) Could these assumptions be clarified?
- (7) Does governance help or hinder innovation or rapid improvement?
- (8) Are decisions made at the right level?
- (9) Are any improvements possible?
- (10) How could you go about making the improvements?

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### Online resources

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- Blue Iguana Conservation, Cayman Islands. <https://nationaltrust.org.ky/our-work/conservation/blue-iguana-conservation/>
- California Condor Recovery Programme. [www.fws.gov/program/california-condor-recovery](http://www.fws.gov/program/california-condor-recovery)
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- Dahari Comoros. <https://daharicomores.org>
- Good Governance Institute. [www.good-governance.org.uk](http://www.good-governance.org.uk)
- Kavango Zambezi Transfrontier Conservation Area. [www.kavangozambezi.org/about-kaza/](http://www.kavangozambezi.org/about-kaza/)
- Maui Forest Bird Recovery Project, Hawaii, USA. [www.mauiforestbirds.org/](http://www.mauiforestbirds.org/)
- Mauritian Wildlife Foundation. [www.mauritian-wildlife.org/](http://www.mauritian-wildlife.org/)
- Pygmy Hog Programme, Assam, India. [www.durrell.org/conservation/species/pygmy-hog/](http://www.durrell.org/conservation/species/pygmy-hog/)
- Wildwood Trust, UK. [www.wildwoodtrust.org/](http://www.wildwoodtrust.org/)

## 12 ‘Six factors of conservation leadership’

### A framework for professional development

#### **Personal Perspectives – Introduction**

So *what really is leadership in conservation?* Clearly, there are many facets, areas of skill and types of approach which are relevant as presented in this book. So how do we pull this together?

Conservation leaders face a collective and personal developmental challenge. They need to dispense with traditionally taught (or exemplified) behaviours relating to self-interest, ego, and hierarchy. Instead, each leader must pursue new skills in influencing, team development, stakeholder engagement, and managing change and performance improvement.

At a personal level, conservation leaders need to work in a dignified, respectful way with communities, with their staff, and with partner organisations yet must always retain advocacy for, and a focus upon, the needs of species and ecosystems of concern. As a leader, you need a clear personal ethos which guides your approach to leading your team, organisation, and the projects for which you are responsible.

The Six-Factor Model of Conservation Leadership provides the basis for a personal leadership audit. The framework should also be consulted for building a curriculum for leadership training or as reference when seeking advice or support in your development as a leader. Take time to consider the factors and the items within each area of the model. Consider whether the elements make sense in your view of leadership and your expectation of the responsibilities that you carry as a leader. Reflect on the concepts covered in this book, how they apply to the elements in the Six-Factor Model, and how they relate to you as an individual and the way that you work with others.

Leadership is a continuous journey of learning, experience, and enlightenment. Where you encounter discouragement or disappointment, learn to value those moments, seek insight from them, and build your resilience. The world needs committed people who can press forward with the energy needed to recover the natural world and secure its place for the future. I urge you to remember your own role in encouraging and developing others to do the same, through what you say and what you do.

#### **Introducing a comprehensive framework for conservation leadership**

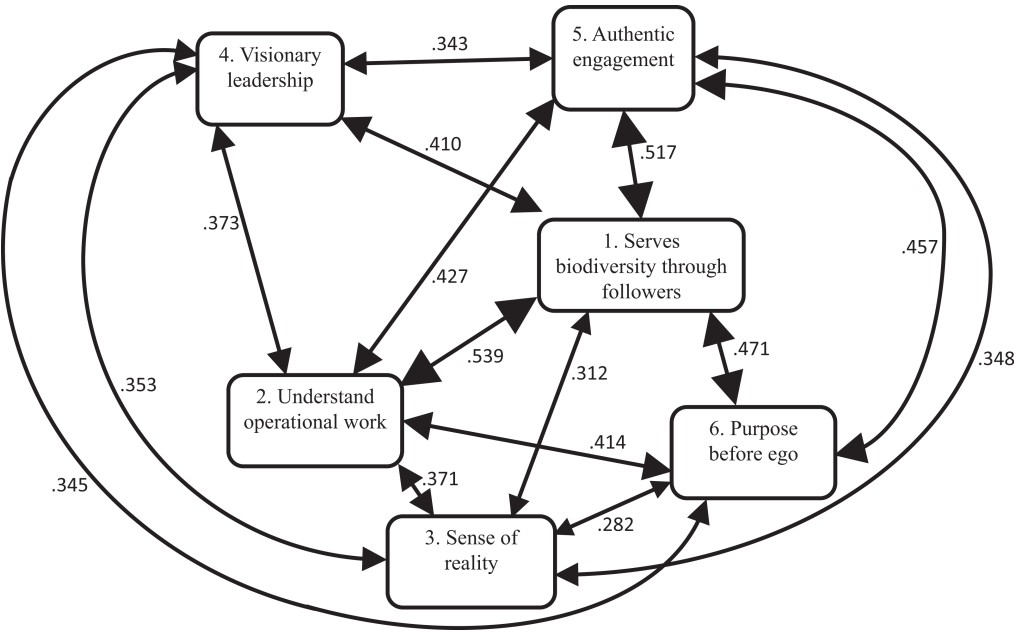
Despite coming late to the game, research interest in conservation leadership has grown over the past decade, and several studies have flushed out important aspects for consideration (Manolis et al. 2009; Black et al. 2011; Bruyere 2015; Englefield et al. 2019; Loffeld et al. 2022; Nery

Silva et al. 2022). A programme of research at the Durrell Institute of Conservation and Ecology, supported by the School of Psychology, at the University of Kent, UK has delved deeply into a wide range of issues in leadership to identify what can be described as the critical factors of leadership for conservation professionals (Black 2019, 2021). The aim of the research was to build a framework of themes relating to conservation leadership which catalogue a range of approaches and activities, thereby assisting the development of conservation leaders at all levels.

The subsequent framework arising from this research includes 68 items, but the overall concepts are most easily described in the Six-Factor Model of Conservation Leadership (Black 2021), each of which is described hereafter in this chapter. The factors are summarised by the depiction in Figure 12.1.

Several characteristics are present in the model:

- The factors are valid constructs of leadership – they represent real, meaningful concepts which measure important aspects of a leader’s approach.
- The constructs integrate leadership and management – leaders need competence in both since conservation leadership involves engagement with strategic and operational aspects.
- The six factors are interrelated and mutually supportive – effective approaches taken by leaders in one factor will enable and support approaches in another.
- The items in the model are comprehensive and relate to work in the conservation sector which includes influence upon human organisations and natural systems.



*Figure 12.1* The Six Factors of Conservation Leadership (Black 2021) describe an interrelated, but discrete set of areas of competence which are required for a leader to be fully effective. Arrow thickness indicates strengths of correlation between factors (see coefficient next to each arrow).



- The items are culturally relevant across diverse contexts, as encountered in conservation in all continents, locally, nationally, and in transnational contexts.
- Developing competence in each factor will enable a leader to mature through the seven levels of leadership, from highly effective supervision to senior leadership and mentorship.

### **Using the Six-Factor Model to reflect on conservation leadership**

This chapter invites the reader to consider each of the six factors of conservation leadership in the light of the content of this book. Review the description of each factor and then consider the specific elements of competence listed in each of the six tables (Table 12.1 through to Table 12.6) and check previous chapter topics shown for each factor. At the end of the chapter, there is an exercise with supporting questionnaire which allows you to systematically review your own leadership approach against the Six-Factor Model of Conservation Leadership.

#### **Factor 1: serve biodiversity through followers**

Serving biodiversity should be a fundamental for conservation professionals. In most situations, this is not a solo effort but rather one conducted within a team or alongside partners, or through involvement of local community members and volunteers. Essentially, the service to species and ecosystems (our 'customers'!) is delivered through other people, and this latter requirement is directly linked with many other facets of leadership.

The commitment which we have, as individual conservationists, needs to be conveyed to others and taken up by those people with whom we work (Loffeld et al. 2022), who may be professionals themselves, or well-informed volunteers, or simply members of the local community who live in the landscape. The leaders' commitment needs to resonate with other stakeholder's commitment. That leader needs to be trusted and must also be able to trust and empower other people.

The interactions that a leader has with others involved in conservation work (or with those people whose actions have an impact on conservation of biodiversity, such as natural resource

*Table 12.1* Competencies of 'Serve Biodiversity Through Followers'.

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13	Possess highly developed biological and/or operational skills appropriate to the programme
49	Follow through on promises and commitments
3	Identify what is happening to, or affecting, biodiversity (populations, productivity, threats)
15	Empower staff to get the job done
60	Take the complexity of conservation issues into account when making decisions
5	Ensure that planning is flexible and make changes when required
7	Consider views of stakeholders and partners
59	Use knowledge of conservation to inform decisions
27	Be receptive to and seek out diverse opinions and alternative solutions
61	Care about the implications of decisions and how they relate to conservation success
50	Treat others with dignity and respect
16	Know people's strengths and channel their energy and passion to maximum effect
21	Have two-way communication meetings to discuss progress and goals
29	Enable staff to ask questions and challenge thinking
30	Encourage staff to share experiences, problems, ideas, and learn from mistakes, without fear of criticism
31	Set high standards, giving a personal example of what is expected

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users) are not transactional, so associations are *not* about ‘you do this and I will do that’. Instead, interactions with others should be *relational*. Conservation leaders need to engage in a heartfelt way with the other people who need to be involved in the work – showing interest, commitment, trust, dignity, listening, understanding, enabling, engaging in dialogue, showing receptivity to ideas, demonstrating respect. These elements also reflect servant leadership (Barbuto & Wheeler 2006), namely altruistic calling, emotional healing, wisdom, persuasion, and stewardship. Although those specific servant leadership terms do not appear in the items within Factor 1, all but two of the 16 items reflect moral, emotional, and relational dimensions of leadership (Reed et al. 2011), including empowering staff, consideration of complexity, stakeholders, receptivity to opinions and challenge, dignity and respect, and learning from mistakes.

The concept of ‘service’ places an expectation that leaders make decisions based on conservation needs and an understanding of stakeholders (rather than, e.g. finances, politics, personal reputation, or prestige). Understanding these expectations of others must also clearly involve intense engagement of colleagues and staff in that process. While the questionnaire items v13 (biological skills) and v5 (flexible planning) are less notably linked to a ‘relational’ approach, those latter items nevertheless relate to how leaders create a positive ‘error management’ culture (Hunter et al. 2011; Catalano et al. 2019) and how leaders encourage innovation (Norbom & Lopez 2016). These are elements of a learning culture (Senge 1990) and clearly linked to whether or not there are effective working relationships and an atmosphere of sharing and trust.

Conservation carries a strong vocational ethos and practitioners are advocates for species and ecosystems of concern (Black et al. 2011), so servanthood driven by a higher calling has relevance. The factor title ‘Serves biodiversity through followers’ appears appropriate.

The conservation leader must be purposed and committed to conserving biodiversity, with an attitude presented in observable behaviours and a deliberate and transparent commitment shown in actions and conversations. Factor 1 highlights, however, that such individual commitment itself will not deliver the programme. What is needed is the input of the team and other stakeholders, and a channelling of the energy, skills, problem-solving capacity of that wider group of people. Engagement of people in this manner is achieved by a leadership approach which values those stakeholders and staff, keeps to promises made to those people, and thereby encourages their commitment and loyalty.

More than this, it requires a leader to be genuinely interested in their staff, the skills, and expertise and limitations of those people and a preparedness to find out what affects people in their work. This may require difficult conversations where opinions diverge, but it is often in these places, where a creative open-minded approach is taken, that new solutions to thorny problems arise.

In essence, the conservation leader needs to have a heart for biodiversity and a heart for the people engaged in the work, whether colleagues or wider community (who might have very different needs). The ability with which a leader can balance these two potentially conflicting sets of interests will determine whether conservation work is effective and sustainable, or not.

This challenge is not necessarily a natural state of mind for the average conservation scientist. Sometimes, it is a matter of learning to value others in a new way. This kind of exploration can be achieved only through conversations and listening. This takes courage, including engagement with alternative opinions, or willingness to address failures in an attempt to find the best possible solutions. On occasion, it might mean inviting others to challenge one’s own thinking. In this sense, the issues of ‘heart’ are also issues of ‘courage’. It is not an easy road to follow.

As well as developing an emotional and empathetic balance in thinking, the leader needs to be pragmatic, adaptable in planning and problem-solving. You are seeking to maintain a focus on the best possible outcomes for species, ecosystems, and landscapes. This is helped by

best exploring and understanding real effects on the areas of concern, the status of species, the impact of threats. Balancing what is known as what is not known in the systems of concern will enable other facts of leadership to be explored and encourage experimentation, learning, and improvement.

In order to 'Serve Biodiversity through Followers' consider the following topic areas:

- Chapter 1 Consider the balance of head, heart and guts, be rational and ask questions, but treat others with dignity whilst maintaining a sense of the implications of decisions.
- Chapter 2 Drop personal ego and allow others to express opinions. Take their views as information to assist the work. Instead of seeing the project as an extension of you, consider yourself serving it.
- Chapter 3 Encourage your team to ask questions, even to show dissent to seek improvement and to develop mature ways of working together. Champion the project, bringing others alongside.
- Chapter 4 Engage local people in the landscape or who live alongside focal species. Seek diverse knowledge to gain insight into underlying issues and solutions. Focus on systemic improvement.
- Chapter 5 Get people to look at their data and understand patterns of performance. Encourage people to have conversations with you about improvement, problems, constraints, and changes.
- Chapter 6 Your philosophy on measuring performance is a reflection of the respect you have for your staff and the focus you have on the purpose of the programme and improving conservation.
- Chapter 7 Develop your team (or organisation) to have a clear purpose and the social norms that encourage questioning, improvement, realistic discussions of performance, and honest feedback.
- Chapter 8 Excellent leaders develop engaged, capable people who are clearly purposed, understand conservation processes, share learning, achieve sustainable results, and engage key stakeholders.
- Chapter 9 With work issues on 95% of occasions it is better to talk about work, not the person using different levels of assertiveness and responsiveness to provide clarity and get the best outcomes.
- Chapter 10 Enable people by encouraging effective team processes. Ensure that you have people in place to manage interfaces between processes of work, both internally and externally with partners.
- Chapter 11 Devise governance structures to enable people at lower levels to make decisions and innovate. Use theory of change to inform project plans and to meet the needs of species and ecosystems.

## **Factor 2: understand operational work**

An effective conservation leader needs to be a hands-on leader (Black et al. 2011). It should not be a surprise to find elements of operational management to feature in the arsenal of leadership competencies. These elements within Factor 2 represent an unusual area of competence which is not traditionally associated with Western concepts of 'leadership'. The elements of operational work in Factor 2 are less obviously related to traditional notions of leadership, yet evidence from past programmes have demonstrated that poor leadership is exhibited when the aspects of Factor 2 are neglected. The factor comprises a series of practical aspects within the

leaders' role; planning, training, data analysis, and fundraising. Nevertheless, these are clearly aligned to a leader's responsibilities, such as governance, risk management, delegation, and prioritisation.

This factor has an operational focus (including potential organisational distractions) addressing planning, training, data analysis, fundraising, experimentation, governance, information control, contingencies, and goals. Shortfalls in these areas have seen failures with the po'ouli (Powell 2008; Black & Groombridge 2010), the Christmas Island Pipistrelle (Martin et al. 2012), and the Yangtze river dolphin (Turvey 2009). A suite of items relates to operational monitoring; drawing upon experience, hands-on management, and asking key questions to prioritise work, all of which relate to three fundamentals of motivation in self-determination theory (Ryan & Deci 2000), namely goals (v4), autonomy (v18, v36, v19), and purpose (v8). This factor suggests that leadership integrity starts from the maxim 'Understand operational work'.

Essentially, the practical concerns of management cannot be separated from a leader's perspective on their organisation and the relative importance placed on those aspects by that leader. The idea that operational management is interlinked with leadership philosophy should hopefully now be clear.

The machinery of organisation, from fundraising, through to decision-making, planning, goal setting, risk management, and training are elements of organisational design. A leader's thinking and philosophy will steer the design of the organisation and will be evident in these approaches to operational activity. Indeed, leaders often need to work on these operational aspects to free up their time to develop leadership influence. An obvious example is being able to delegate work to competent team members to free up time to undertake fundraising (both being aspects in this factor). These conscious efforts in operational management have a significant impact on the effectiveness of the leader in their role. An expert technical leader who does not have time to seek funding will see their programme stall and possibly fail. Conversely, a good fundraiser who does not understand the work being undertaken may only attract sources of funding which drive expectations which are poorly matched to the goals of the programme and end up locking the team into irrelevant work steered by funder requirements rather than needs on the ground. If we do not balance these operational elements, we generate problems.

*Table 12.2* Competencies of 'Understand Operational Work'.

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8	Ensure planning starts from understanding current performance against intended program purpose
26	Provide training on a just-in-time basis
18	Involve the people doing the work in data analysis, decisions, and implementing changes
39	Establish a fundraising strategy
37	Understand what you can influence and avoid distraction by unsolvable problems outside your control
36	Allow people doing the work the freedom to experiment with methods to improve outcomes
10	Advocate good governance, particularly in large complex projects
19	Place responsibility and control of information in the hands of people who do the work
57	Look to others with more experience for feedback and discussion of ideas
12	Ensure consistency and alignment between plans, action on the ground, and results
14	Prioritise the work by asking key questions and checking results
28	Understand risk and make suitable contingencies
32	Appraise the system and organisation of work rather than people
4	Set clear, short-term goals
25	Give people the opportunity to ask for training
11	Be orientated towards 'hands-on' management, working with staff
23	Ensure managers lead and that they spend time with staff, listen to concerns, and enable contributions

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Over and above that, good operational management demonstrates to the team the priorities of the leader. A balanced approach taken to these elements of operational management offers staff, volunteers, and partners clues as to the philosophy or value system of the leader, namely what is important. These clues (or perhaps 'cues') will indicate to people how they should carry out their work, for good or for bad.

If effort on these operational elements is neglected, then work will suffer. If people are not allowed to experiment with improvements, they will stick to 'how we have always done it'. If goals are unclear, then people will assume that progress is unimportant. If there is no fundraising strategy, then people may think that the project is not in it for the long term. If we lack clear governance, we may well be considered as being untrustworthy. If people are not trained, they may consider themselves undervalued.

All of these issues rub alongside leadership, and whether people take us seriously as leaders or not.

If a leader is effective across these elements, a different picture emerges.

Plans which relate to current performance follow a reasonable rationale. Training which is offered on a timely basis is useful because it assists current work priorities. People's effort becomes focused on things which can be done. Responsibilities are clear and people have latitude to get on with the work. Colleagues can talk about issues, problems, and risks and get support, knowing that everyone has an interest in the continuous improvement of the programme.

More than this, a leader who understands the work of the team will be trusted, used as a sounding board, and pressed if the project is not progressing as it should.

It is no surprise that the best conservation leaders are good at understanding the work, asking the right questions, encouraging debate, collaborating with other experts, establishing realistic plans with sensible goals, attracting funding year on year. It is also no surprise that their teams develop high levels of expertise and independence, and junior managers have a high degree of authority and are able to develop their own staff effectively. These types of programmes are the most effective, most sustainable, and best value for money. They are the programmes which see biodiversity recovery and reduction of threats to ecosystems and species of concern.

To 'Understand Operational Work' consider the following topic areas:

Chapter 1 internalise, as a personal value, the need to understand people's work and the constraints which they work under, even if you are not doing the work yourself.

Chapter 2 Focus on influencing and improving rather than controlling the work. Focus conservation on the work and how it can be improved. At all costs avoid blame and inquisition.

Chapter 3 Adapt planning, including budgeting and funding to deliver resources for the work. Be clear on what is 'in' and what is 'outside' the project, with clear purpose, vision, and values.

Chapter 4 Develop questioning alongside staff based on how work is based on scientific knowledge of how interventions improve the system of concern (species, population, landscape, threats).

Chapter 5 Develop at-a-glance charts (such as SBC) to show the status of work (relative to the past, capability, limit lines) to inform realistic and valuable discussions of good/bad/better/improving.

Chapter 6 Remember that attempting to exert control is a flawed philosophy when managing performance; instead seek to influence by seeking points of intervention and improvement.

Chapter 7 Work with colleagues to identify the social systems related to the programme you manage and the type of work needed to influence change and reduce threats to biodiversity.

Chapter 8 A systems-thinking leader has clear understanding of purpose, boundary, task, team and individual processes, feedback cycles and results, based on knowledge of operational work.

Chapter 9 When tackling difficult issues in the team, find out what is going on, give your attention in the moment, tackle the problems now, take responsibility for any turbulence, and seek resolutions.

Chapter 10 Know the work well enough to manage risks, through well-designed mitigation to revise the way of working or, if it cannot be done, plan responsible contingencies ‘just in case’.

Chapter 11 Work (purpose, processes, boundary) should define organisational structure; structure should *not* define the work. Use theories of change to assist work design and planning.

### **Factor 3: a sense of reality**

One of the most important competences in leadership, a sense of reality, is the ability that ensures that the leader takes a perspective that addresses real issues and challenges. This factor carries a number of items which express the concepts measured in Kalshoven et al.’s (2011) fairness scale, for example v35 (recognise the difference between neglect and lack of capability) and v34 (make improvements against biodiversity needs not arbitrary targets). Manipulative elements of the fairness scale do not appear in Factor 3 at all. Several of Factor 3 items (v24, v40, v34, v2, v9) consider constraints of time, cost, biodiversity needs, skills, resources, and commitment of people which resonate with Conger and Kanungo’s (1994) Environmental Sensitivity scale. Factor 3 appears to concern leadership effectiveness arising from a ‘Sense of Reality’.

A leader with a sense of reality accepts changes in circumstances, utilises any dissonance within the team, navigates variable organisational dynamics, and ensures that budgets are derived from an understanding of work capability, limitations, and needs rather than driven from financial perspectives (i.e. the budget is designed from the requirements of conservation work, not the work being designed *from* the budget). This leadership approach resonates with significant leadership models such those proposed by Deming (1994), Covey (1992), and Kouzes and Posner (2007).

To develop a ‘Sense of Reality’ consider the following topic areas:

Chapter 1 Understand that an organisation is a system, and it operates within other wider systems which are highly variable. Set up the organisation to understand and account for these dynamics.

*Table 12.3* Competencies of ‘Sense of Reality’.

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24	Expect the project (and its needs) to evolve through time
40	Determine relevant financial and non-financial measures of performance
34	Make improvements based on biodiversity needs and process performance, not arbitrary targets
35	Recognise the difference between neglect and lack of capability (training, experience, or resources)
38	Focus both internally and externally, understanding intra- and inter-organisational dynamics
9	Ensure that staff embrace project aims and culture (vision, understanding the system, goals)
2	Establish a shared sense of purpose throughout the team
41	Base information, technology, and resource plans on how they will help people’s core work
22	Place an emphasis on personally clarifying, testing, and establishing good understanding

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- Chapter 2 People should be able to recount purpose and goals fairly easily in a way that relates to their work. Remember to avoid chateaux management – make decisions on the basis of knowledge.
- Chapter 3 Use a situational approach for people and teams according to maturity. Use correct sources of power to influence others. Establish meaningful goals to build trust and commitment.
- Chapter 4 Design the work to fit the system to deliver required changes. If people do not support the vision or goals seek out why. Set milestones based on biodiversity cycles and resource constraints.
- Chapter 5 Be clear that single data points or year-to-year comparisons do not describe the reality of a programme’s performance and attempts to do so are inauthentic, self-deluding, and unhelpful.
- Chapter 6 If you have limited data, develop better analyses of that data to inform action rather than collecting more data. Use new information on variation that is already available in existing data sets.
- Chapter 7 Do not expect a cause–effect relationship between your behaviour and expectations and the behaviour of other people. Instead, seek out what influences, or limits, their expectations.
- Chapter 8 Develop a sense of reality through an outside–in view (real need). Avoid trying to ‘manage people’ (which doesn’t work) and integrate improvement into the actual work (not via ‘projects’).
- Chapter 9 With conflict, manage your emotions (others’ bad ideas or feedback is just information); asking for ideas does not mean you accept them. Overcome conflict by seeking common ground.
- Chapter 10 Use of team processes like situation assessment, decision-making, problem-solving, planning and plan protection enable facts to inform outcomes during meetings and discussions.
- Chapter 11 Experimental innovation cycles are well suited to behavioural or environmental change. If pilot data says things work (or do not work), take it seriously; don’t cling on to other agendas.

#### **Factor 4: visionary leadership**

In terms of the collection of items, this is one of the simplest factors, reliant on the leader’s ability to build a shared vision (Bruyere 2015; Black 2015), supported by personal reputation and ability to define measurable aspects of that vision. Although Factor 4 is complex, it is perhaps best described as *Visionary Leadership*.

Being visionary is not in itself any help to a leader unless they engage others in that vision (Kouzes & Posner 2007). A vision alone has little value, which is why although often quoted in leadership articles, it is emphasised less in my own discussions. That said, a vision agreed by stakeholders has considerable value in terms of energising and aligning effort. It is this perspective of engagement of others in shared vision which is clear in the fourth factor ‘Visionary Leadership’ using data to inform aspirations.

It is interesting that the personal reputation of the leader appears in this factor and not alongside, for example decision-making. Decision-making requires facts (a focus on data) whilst vision building requires inspiration and credibility on the part of the leader. An element of the character and reputation of the leader runs alongside consideration of what is important for the organisation now and in the future.

Table 12.4 Competencies of 'Visionary Leadership'.

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56	Achieve a good reputation in conservation through personal successes
45	Determine whether data on staff, communities, or society would be useful for the programme
6	Measure performance against project aims
1	Establish a stable, inspiring, and compelling shared long-term vision or 'big picture'
62	Be aware of one's own strengths and weaknesses

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Self-awareness is the key to a leader's ability to draw others in and get support (Covey 1992). To be visionary, you need to be able to see the potential contribution of others. This means knowing oneself and the kind of team (and contributors) needed to deliver what can help biodiversity.

A solid assessment of how things currently stand is important. What are we good at, what are we not good at, where are improvements needed, what threats are re-emerging, what do local people think. These are all areas of data which should inform vision.

If people are then engaged in building that vision, alongside the leader, then a compelling view of the future will emerge, and one which everyone can 'sign up' to. This is important, since vision may need to carry and inspire people for years, even decades.

Kouzes and Posner's (2007) principle of 'inspiring a shared vision' is a close comparison. Factor 4 is not about simple communication of vision (e.g. the limits of Conger and Kanungo's (1994) Vision and Articulation scale). Instead, Factor 4 involves a more nuanced consideration of vision as a distinguishing feature of transformational leadership (Carless et al. 2000). An awareness of strengths, capabilities, data on people's needs and interests, project performance will inform vision, coupled with an approach which involves people in developing a creative view of what is possible and in which they wish to play a part.

To develop 'Visionary Leadership' consider the following topic areas:

- Chapter 1 As a leader remember that people will follow on the basis of what you say and what you do; ensure you are consistent. Weed out anything (e.g. habits, rules) which contradicts the vision.
- Chapter 2 Make sure the vision of the organisation is practical and resonates with the purpose and that people feel a part of the vision. Use vision and purpose as a basis for measuring performance.
- Chapter 3 Develop a vision with people that makes sense. Establish shared values which are owned by the team. Use performance measures to influence effort rather than control.
- Chapter 4 Seek sustainable capacity in the locality of biodiversity concern. Bring staff alongside you to own and carry the vision. Make measures of success purposeful and relevant to improvement.
- Chapter 5 Seek to include better perceptions (data analysis) to accelerate improvements to achieve ambitious and exceptional conservation outcomes rather than incremental linear improvement.
- Chapter 6 Seek exponential improvements in performance and encourage the team to be proactive in its exploration of patterns in existing data sets to inform innovation and improvement.
- Chapter 7 Build a vision based upon listening (to team members and stakeholders), to understand what will inspire high levels of commitment, imagination, and focus, for better conservation work.
- Chapter 8 A leader's job is to ensure that the interventions (and there may be several approaches taken) match the organisation's competence, capability, and capacity.



*Table 12.5* Competencies of 'Authentic Engagement'.

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55	Have a clear personal philosophy of leadership
46	Talk about future trends (threats, socio-economics, funds, capacity) that influence how work gets done
64	Recognise how one's own emotions and the feelings of the team influence decisions and actions
53	Support the work-related decisions that people make on their own
68	Let individual team members express their own skills and talents
67	Change leadership style and approach depending on what the situation requires
66	Identify potential leaders and support their development
52	Focus on what can be learned when things don't go as expected
48	Encourage people to have confidence in their own abilities
54	Publicly recognise and reward people who exemplify commitment to shared values
69	Encourage team members to form networks of support with colleagues
33	Manage morale, celebrate success, and creatively reward people's contributions
70	Be open to self-development by engaging support from those who are more skilled or experienced
17	Understand cultural differences and manage people's expectations and viewpoints sensitively
65	Provide expertise, guidance, and support to the team
42	Create an attitude of cooperation with project partners, sharing information to improve effectiveness

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Chapter 9 To develop leadership credibility and engage others with a shared vision in cross-cultural situations, seek to develop social links with people and get to know the local culture.

Chapter 10 Performance of task processes can be measured relative to demand (e.g. the needs of species and ecosystems or the pressure of threats) and the capability of the process itself.

Chapter 11 Development of a 'Theory of Change' for an intervention, as a schematic which describes the intentions, planned actions, intended outcomes, and impacts, is a useful conceptual tool.

### **Factor 5: authentic engagement**

Authenticity of engagement resonates with ethical leadership (Kalshoven et al. 2011) covering fairness, power, role clarification, people orientation, integrity, ethics, and sustainability, and partly with participative decision-making (Arnold et al. 2000), including encouragement of ideas and group suggestions. Conservation commonly involves collaboration with external partners and communities (external advice, cooperation with partners, understanding cultural differences, development by those more skilled, external trends). This factor embodies self-awareness, relational transparency, and moral perspective in authentic leadership (Neider & Schriesheim 2011). Effective leaders support and acknowledge individual's and team's achievements (Kouzes & Posner 2007; Carless et al. 2000), suggesting Factor 5 describes 'Authentic engagement'.

Engagement, relative to other aspects of conservation science and organisation, is poorly understood. It requires a particular personal perspective and set of behaviours as well as an ability to actively encourage types of behaviour in others, with both the personal and other-enabling aspects being necessary and complimentary. This results in a large variety of items appearing within this factor, yet the relationship between each of the items and their inclusion is important. Attempts to engage staff are undermined by failures in understanding cultural difference (v17), poor cooperation (v42), lack of celebration of successes (v33), blame rather than seeking to learn from failure (v52), lack of confidence of employees (v48) lack of interest by leaders in the work (v46), and lack of support from team member's suggestions and decisions (v53). Clearly, all these elements undermine engagement with staff. 'Authentic engagement' as fully represented in this factor is an important leadership principle.

To develop 'Authentic Engagement', consider the following topic areas:

- Chapter 1 Avoid manipulative behaviour and hidden agendas. People spot them (or suspect them) a mile away. Understand that you do not have all the answers, and people's input is valuable.
- Chapter 2 Get to know people's strengths and abilities. Share information to get buy in and involvement. Avoid reporting meaningless figures just to make it seem like progress is being made.
- Chapter 3 Develop vision by engaging other people in its development. Have clear values in the team to encourage questioning, opinions, celebration, decision-making, mutual respect, encouragement.
- Chapter 4 Value diversity by engaging and developing people of all backgrounds in the work. Use engagement as a pathway to develop ever-increasing local capacity. Build learning into the system.
- Chapter 5 Understand that many perspectives (including traditional knowledge, emotion, inconvenient cultural biases, or unexpected opinions) build knowledge for design of interventions.
- Chapter 6 Ensure that true exceptional performance (rather than luck), shown by analysis of variation, is recognised when lessons are learned which embed and maintain improvements.
- Chapter 7 Seek to gain other people's insight to develop a clearer 'outside-in' view of the programme, the work being conducted, and what matters to species and ecosystems of concern.
- Chapter 8 A leader who is open to external review (e.g. Conservation Excellence Assessment) feedback and comparisons with other organisations to get a systems perspective of the organisation.
- Chapter 9 In conversations remember persistence, clarity, ownership in what you say, keep 'above the line' in your verbal and non-verbal behaviour and consider acceptable compromise.
- Chapter 10 Authenticity involves enabling the work as much as it is having positive interpersonal relationships. Teamwork is based on using effective team processes as much as it is relationships.
- Chapter 11 Governance structures should not burden the staff leadership team but instead must encourage and enable staff to innovate, to question current practice, and seek improvement.

### **Factor 6: purpose before ego**

We have examined the many ways in which ego can cause problems in leadership and, ultimately, distract the leader from the task of leadership. The challenge is to understand what the leader must do to avoid ego coming to the forefront of thinking and behaviour. Factor 6 'Purpose before Ego' gives a compelling indication of the most helpful approaches.

First, humility to anticipate unexpected outcomes and to be flexible and adaptable enables an outward-looking rather than inward-looking focus. However, at the same time, a leader needs to be rooted in their own convictions for the work, most importantly having a focus on the needs of species, ecosystems, and the landscapes of concern.

Humility is the antidote of hubris (Kouzes & Posner 2007) and a key part of this is willingness to admit that we do not know everything and sometimes need to seek specialist advice. A willingness to continually learn is the hallmark of a humble but ambitious and purposeful leader.

A leader's attention towards purpose (i.e. needs of species and ecosystems) and not themselves (ego or personal preferences). A leader should be open to review and change (v43) expecting that even their best plans can become impractical, misguided, or no longer relevant. The leader's passionate message is about work, not themselves (v58). Work priorities should

*Table 12.6* Competencies of 'Purpose Before Ego'.

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43	Anticipate unexpected outcomes; integrate management flexibility alongside professional rigour
58	Communicate with conviction and demonstrate passion for the work that is being done
20	Ensure that an understanding of what matters to biodiversity steers the work that people do
63	Be willing to say "I don't know"
44	Be prepared to seek specialist advice and learn from external sources

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relate to what matters to biodiversity, overriding a leader's personal preference or professional bias (v20). Leaders must be humble enough (Kouzes & Posner 2007) to know that they do not have all the answers (v63, v44). In essence, a leader places 'Purpose before Ego'.

Purpose before ego is an important construct in that it takes leadership away from being dependent on the personality of the leader. By taking on the areas of competence within Factor 6, the individual leader is allowed to pursue effectiveness rather than preserve their own sense of self-worth. Self-worth is taken out of the arena and replaced by a focus on work. This resonates strongly with Kouzes and Posner's (2007) principle of leadership humility. Importantly, the conservation leader needs this humble perspective when operating in the unpredictable working context encountered in conservation (Game et al. 2014) to enable anticipation and sensible response to influential but uncontrollable changes in the threats and pressures on ecosystems and species of concern.

Whilst this last factor is simple in terms of having a few items present, those items express the key areas of competence that tend to demand attention by conservation scientists thrust into leadership roles, namely focusing people's work correctly on the priorities of biodiversity, being adaptable in circumstances which may extend beyond immediate controls, seeking multidisciplinary input (often from external experts), and being able to communicate the point of the work.

To place 'Purpose before Ego', consider the following topic areas:

- Chapter 1 Examine the seven levels of leadership and observe how giving away self-centred power frees you up to seek information that really helps performance of the team and organisation.
- Chapter 2 Revisit the pitfalls of ego, charisma, and narcissism; spot the traits in yourself; and seek to eliminate them. Devise goals which relate to the needs of the project not your own ambition.
- Chapter 3 examine the role of humility, service, integrity, and trust. Identify sources of power which enable you to influence others. Identify what activities should be inside or outside your organisation.
- Chapter 4 develop others to be leaders of impactful work, not yourself; coach others in your area of expertise; seek out relevant experts. Develop a reputation for treating others with dignity.
- Chapter 5 Develop an understanding of temporal (especially longitudinally over time) and spatial dimensions of knowledge to understand systems not on just what is seen by you in the moment.
- Chapter 6 Ensure that performance is measured to satisfy the needs of the programme (to understand what needs to be done) rather than to make yourself or your efforts 'look good'.
- Chapter 7 Examine the negative effects of exerting personal ego, instead focusing the team on the purpose of the programme, developing in people the capability and autonomy to improve the work.
- Chapter 8 A leader with a systems-thinking perspective focuses on the purpose of the organisation and uses that (rather than personal agendas) to set task, team, and individual processes.

Chapter 9 ‘Listening to understand’ involves the disciplines of attention, following, and reflection. Conversations using levels of assertiveness and responsiveness gain clarity and get best outcomes.

Chapter 10 Systematic anticipation of unexpected outcomes is the purpose of plan protection, involving identification of mitigation and contingency options within a plan of work.

Chapter 11 Develop governance structures that give you leadership freedom, yet allow you to seek support and advice, confident in the protection given by relevant oversight from board members.

## **Conclusion – working towards higher levels of leadership**

This book opens with a general discussion covering the complex sets of ideas and challenges faced by contemporary leaders, prompting the reader at the end of Chapter 1 to consider the seven levels of leadership. Leadership requires continual learning, and this book has set out to describe the areas needed by conservation leaders. Some of those concepts might not be traditionally considered as part of leadership, yet all impinge on how the leader steers the team. In the seven levels of leadership, the first four levels described in Chapter 1 are familiar and commonly encountered:

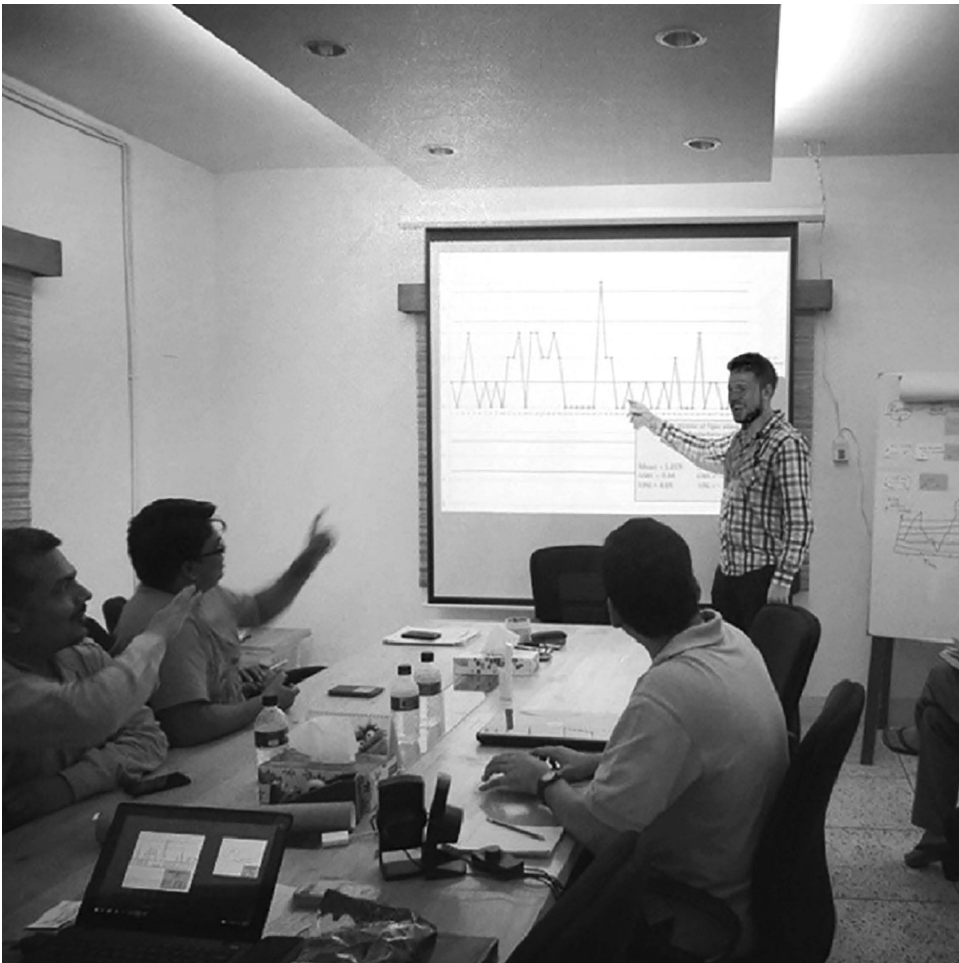
- **Level 1** supervisory management, reliant on the hierarchy of the job role
- **Level 2** development of values, beliefs, and rules shared in the team
- **Level 3** using knowledge and skill for power but also attend to team relationships
- **Level 4** maturity which is found in confident managers who nurture others

The higher levels of leadership (levels 5, 6, and 7; see Chapter 1) involve less conventional behaviours which are also less commonly observed.

The challenges of conservation, with continuing increases in pressure on species, ecosystems, and landscapes, require conservation work and conservation organisations, which can provide exponential improvements in the fate of endangered wildlife. Competition in conservation needs to cease; collaboration needs to become the norm. The ten-year turnarounds for the early twenty-first century need to become the norm. The five-year planning cycles of twentieth-century scientific teams need to become three-month planning cycles followed by fast implementation and upscaling of interventions through experimentation and innovation. The remote expatriate teams of well-educated specialists need to be replaced by local teams of highly skilled, well-qualified, and well-informed experts (Figure 12.2). The individual ‘conservation heroes’ working within a community of specialists need to be replaced by large active networks of collaborative, mutually purposed peers. The modern conservation organisation needs to be working with an array of different partner organisations, which extend their reach into human society as much as into wild places. Just as healthcare, education, business, media, or communications already feature in the lives of people in our differing societies, the work of conservation needs to be co-managed with people living in landscapes of concern.

When we reflect on the higher levels of leadership, we get sight of the type of leaders who will enable these sorts of radical changes.

- **Level 5** involves letting go of ego as the basis of perspective, focusing on purpose and context.
- **Level 6** is a leader who is no longer defensive, is interdependent, and open to collaboration.
- **Level 7** is a mentoring leader with an outside-in view, working beyond organisation boundaries.



*Figure 12.2* A collaborative workshop assessing human–tiger interactions in the Bangladesh Sundarbans. New uses of data, collaboration, identifications of priorities, and enabling of interventions by local teams are key features of modern conservation leadership.

*Source: Photo credit: Samuel Leslie*

I urge the reader to explore the Six-Factor Model of Conservation Leadership outlined in this chapter summarised in CASE BOX 12. Take time to review yourself with the self-assessment exercise and questionnaire in Table 12.7 at the end of this chapter using the guidance provided. Consider repeating the exercise perhaps every two or three years, getting trusted peers to provide their views. Remain humble enough to know that you may start at a lower level than initially expected but can grow over time, with experience, and an open mind with the willingness to learn new habits.

You may yet progress to levels 5, 6, and 7 of leadership, not for their own sake, but for the sake of conserving species, ecosystems, and landscapes of concern.

The planet needs your commitment.

## Case Box 12 The leadership challenge in conservation

Now that the conservation sector has a research-based framework of leadership to call upon (Black 2021), professionals no longer need to ask themselves ‘what does leadership really mean to me?’. Leadership in the conservation context has now been properly considered. The five-factor conservation leadership framework is not prescriptive. It is not a template for leadership. A leader’s approach will be highly adaptable to the context in which they work. This is extremely important to remember as it differs from the approaches of command-and-control or project management which largely prescribes ‘what you are supposed to do’. Instead, *the six-factor model requires you to think*.

The discussion on leadership in the conservation sector still needs to mature in two dimensions. First, we need a better understanding of the important *practices* that leaders must pursue to make conservation succeed. There is no best practice, but there are ‘good practices’ and ‘bad practices’. In time, there will be ‘new practices’. Second, we need to test whether those practices resonate with, and be congruent with, credible *theories* of leadership, psychology, and conservation science (rather than have practitioners simply relying in on a collection of what is perceived to ‘make sense’). The Six-Factor Model of Conservation Leadership meets both of these criteria.

As a leader you should consider how this framework prompts you to examine critical aspects which you now need to explore, to enable your personal development, and to enable you to better lead (whether a whole conservation organisation, a conservation programme, or people in a specific team). I urge any conservation leader to stretch yourself, your team, your organisation towards high performance. Significantly higher-impact and more excellent results will be needed to counteract the growing threats to biodiversity. This six-factor model of conservation leadership presents a very demanding range of practices, but it is the thinking which it demands from you, and the approaches which it drives, which will be the most important for you in delivering leadership roles.

I find it particularly compelling that the experienced viewpoints of a large and varied group of professionals from across the globe generated such a specific range of issues in this model. The six factors are notable in emphasising *authenticity and servanthood* in leadership; concepts which are a challenge to many paradigms of leadership in different cultures but which nevertheless offer the true route to influencing people. Alongside those ‘softer’ elements of the framework are the more pragmatic areas of *understanding biodiversity needs* and the equally hands-on need to *understand practical operations*. Leaders must not ignore the fact that we need operational and biological knowledge. Leadership is not about waving arms and inspiring others. *Leadership is about engaging people to deliver work that matters*. The strongest inter-factor correlations (Figure 12.1) link ‘Serving Biodiversity through Followers’ with ‘Authentic Engagement’ and ‘Understanding Operational Work’.

‘Purpose before Ego’ links strongly with ‘Authentic Engagement’ and ‘Serving Biodiversity’ whilst ‘Visionary leadership’ emphasises vision as a practical tool affirming a leader’s personal understanding and expectations alongside the needs of conservation. Personal reputation is of use in developing the profile and expectations of the programme that you lead, as much as it is about personal kudos. These interactions require a leader’s ability to put ego aside



*Figure 12.3* The work of Dahari in Comoros reflects its leadership ethos and governance philosophy. A local workforce works in communities and provides a trusted source of advice and infrastructure for farmers, fishers, and other community members. This is a function of Dahari's commitment to be a credible and trustworthy presence in communities.

*Source:* Photo credit: Dahari Comoros.

and instead focus on the realities of situations (rather than preconceptions or self-image), confirming previous assertions by Dietz et al. (2004) and Black et al. (2011).

The Six-Factor Framework for Conservation Leadership highlights the need for purposeful conservation leaders, who are focused on species and ecosystem needs, yet who offer dignified engagement of people through vision, empowerment, and sound operational management (Figure 12.3). The six-factor structure offers a guide which (at a summary level at least) can be committed to memory, as a basis for leaders to remember to consciously reflect upon and apply in their day-to-day practice.

## **Chapter 12 reflection – the six factors of conservation leadership**

Research on the important competences, skills, and behaviours of leaders in conservation (Black 2021) highlights the following six areas as being critical to success, reflecting and building upon a range of previous research within the sector (Black et al. 2011, 2013; Bruyere 2015; Englefield et al. 2019; Black 2019; Webb et al. 2022). These areas of competence, which are interrelated, and mutually supportive, provide a better way of leadership, a more integrated and reliable set of behaviours which will engender trust

and engagement of others, even those with different views and expectations from your own. Conservation leaders are encouraged to develop approaches which will best suit the recovery of ecosystems, species, and landscapes of concern:

- (1) Serve biodiversity by engaging followers – involve staff and communities to support biodiversity.
- (2) Understand operational work – design an effective organisation with full contribution from all.
- (3) Have a sense of reality – grounded in the constraints and complexities of people and systems.
- (4) Provide compelling visionary leadership – engage people using data to inform future aspirations.
- (5) Provide authentic participative leadership – get people actively involved in shaping the work.
- (6) Place emphasis on purpose before ego – an approach which is about the work not about oneself.

### **Exercise 12 – leadership review**

- (1) Complete the Conservation Leadership Self-Assessment Questionnaire (Six Factors).
  - (a) Consider the areas of competence under each of the six factors and rate your own leadership approach using the 1–5 scale (poor to strong).
  - (b) Look at the profile on each factor. Does the pattern of responses on each factor look (i) generally poor, (ii) generally strong, (iii) mixed and variable across items within a factor?
  - (c) Are there any differences in the general patterns between the six factors – do you tend to be stronger in some factors and weaker in others?
  - (d) Which items have the lowest scores (1s and 2s) which suggest your competence is poor in these areas? How does it affect your approach in that factor?
- (2) Ask trusted colleagues (peers, boss, team members) to complete the questionnaire as an assessment of your leadership, so that they give you a rating using the same scales.
- (3) Review your self-rated answers with the answers given by your colleague(s).
  - (a) Are there any common areas?
  - (b) Are there any major differences in the profile?
  - (c) What do the similarities and differences say about your leadership approach?
- (4) Consider the feedback from steps 1 and/or 3.
  - (a) Which actions are most important for you to address?
  - (b) Which actions require learning or training in new skills?
  - (c) Which actions can be undertaken and then tested by you asking others for feedback?
- (5) Discuss your action plan with a trusted senior colleague, peer, or mentor.
  - (a) Is your plan realistic?
  - (b) Can they assist you in monitoring progress?
  - (c) What other support do you need (resources, feedback, development experiences)?



Table 12.7 Conservation Leadership Assessment Tool. © S Black 2021 page 1 of 2

Completed by: self [ ] peer [ ] subordinate/team member [ ] superordinate/manager [ ]  
 Consider current approaches. Circle each item scale using one scale point from poor (1) to strong (5)

	poor		strong		
	1	2	3	4	5
<b>Factor 1 'Serve Biodiversity Through Followers'</b>					
13 Possess highly developed biological and/or operational skills appropriate to the programme	•	•	•	•	•
49 Follow through on promises and commitments	•	•	•	•	•
3 Identify what is happening to, or affecting, biodiversity (population, productivity, threats)	•	•	•	•	•
15 Empower staff to get the job done	•	•	•	•	•
60 Take the complexity of conservation issues into account when making decisions	•	•	•	•	•
5 Ensure that planning is flexible and make changes when required	•	•	•	•	•
7 Consider views of stakeholders and partners	•	•	•	•	•
59 Use knowledge of conservation to inform decisions	•	•	•	•	•
27 Be receptive to and seek out diverse opinions and alternative solutions	•	•	•	•	•
61 Care about the implications of decisions and how they relate to conservation success	•	•	•	•	•
50 Treat others with dignity and respect	•	•	•	•	•
16 Know people's strengths and channel their energy and passion to maximum effect	•	•	•	•	•
21 Have two-way communication meetings to discuss progress and goals	•	•	•	•	•
29 Enable staff to ask questions and challenge thinking	•	•	•	•	•
30 Encourage sharing (experience, problems, ideas) and learning from mistakes without fear	•	•	•	•	•
31 Set high standards, giving a personal example of what is expected	•	•	•	•	•
<b>Factor 2 'Understand Operational Work'</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
8 Ensure planning starts from knowing current performance versus intended purpose	•	•	•	•	•
26 Provide training on a just-in-time basis	•	•	•	•	•
18 Involve people doing the work in data analysis, decisions, and implementing changes	•	•	•	•	•
39 Establish a fundraising strategy	•	•	•	•	•
37 Recognise areas of influence and avoid distraction by unsolvable problems outside control	•	•	•	•	•
36 Allow people doing work the freedom to experiment with methods to improve outcomes	•	•	•	•	•
10 Advocate good governance, particularly in large complex projects	•	•	•	•	•
19 Place responsibility and control of information in the hands of people who do the work	•	•	•	•	•
57 Look to others with more experience for feedback and discussion of ideas	•	•	•	•	•
12 Ensure consistency and alignment between plans, action on the ground, and results	•	•	•	•	•
14 Prioritise the work by asking key questions and checking results	•	•	•	•	•
28 Understand risk and make suitable contingencies	•	•	•	•	•
32 Appraise the system and organisation of work, rather than people	•	•	•	•	•
4 Set clear, short-term goals	•	•	•	•	•
25 Give people the opportunity to ask for training	•	•	•	•	•
11 Be orientated towards 'hands-on' management, working with staff	•	•	•	•	•
23 Ensure managers spend time with staff, listen to concerns, and enable contributions	•	•	•	•	•

(Continued)

Table 12.7 (Continued)

	poor		strong		
	1	2	3	4	5
<b>Factor 3 ‘Sense of Reality’</b>					
24 Expect the project (and its needs) to evolve through time	•	•	•	•	•
40 Determine relevant financial and non-financial measures of performance	•	•	•	•	•
34 Make improvements to meet biodiversity need and process results not arbitrary targets	•	•	•	•	•
35 Recognise difference between neglect and lack of capability (skill, experience, resources)	•	•	•	•	•
38 Focus both internally and externally, understanding intra- and inter-organisational dynamics	•	•	•	•	•
9 Ensure that staff embrace project aims and culture (vision, understand the system, goals)	•	•	•	•	•
2 Establish a shared sense of purpose throughout the team	•	•	•	•	•
41 Base information, technology, and resource plans on how they will help people’s core work	•	•	•	•	•
22 Place an emphasis on personally clarifying, testing, and establishing good understanding	•	•	•	•	•
<b>Factor 4 ‘Visionary Leadership’</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
56 Achieve a good reputation in conservation through personal successes	•	•	•	•	•
45 Determine whether data on staff, communities, or society will be useful for the programme	•	•	•	•	•
6 Measure performance against project aims	•	•	•	•	•
1 Establish a stable, inspiring, and compelling shared long-term vision or ‘big picture’	•	•	•	•	•
62 Be aware of one’s own strengths and weaknesses	•	•	•	•	•
<b>Factor 5 ‘Authentic Engagement’</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
55 Have a clear personal philosophy of leadership	•	•	•	•	•
46 Discuss trends (threats, socio-economics, funds, capacity) that influence the work	•	•	•	•	•
64 Recognise how one’s own emotions and the team’s feelings influence decisions/ actions	•	•	•	•	•
53 Support the work-related decisions that people make on their own	•	•	•	•	•
68 Let individual team members express their own skills and talents	•	•	•	•	•
67 Change leadership style and approach depending on what the situation requires	•	•	•	•	•
66 Identify potential leaders and support their development	•	•	•	•	•
52 Focus on what can be learned when things don’t go as expected	•	•	•	•	•
48 Encourage people to have confidence in their own abilities	•	•	•	•	•
54 Publicly recognise and reward people who exemplify commitment to shared values	•	•	•	•	•
69 Encourage team members to form networks of support with colleagues	•	•	•	•	•
33 Manage morale, celebrate success, and creatively reward people’s contributions	•	•	•	•	•
70 Be open to self-development by engaging support of those more skilled or experienced	•	•	•	•	•
17 Understand cultural differences and manage people’s expectations and views sensitively	•	•	•	•	•
65 Provide expertise, guidance, and support to the team	•	•	•	•	•
42 Create cooperative attitude with partners, sharing information to improve effectiveness	•	•	•	•	•
<b>Factor 6 ‘Purpose Before Ego’</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
43 Anticipate unexpected outcomes; management flexibility alongside professional rigour	•	•	•	•	•
58 Communicate with conviction and demonstrate passion for the work that is being done	•	•	•	•	•
20 Ensure that an understanding of what matters to biodiversity steers work that people do	•	•	•	•	•
63 Be willing to say “I don’t know”	•	•	•	•	•
44 Be prepared to seek specialist advice and learn from external sources	•	•	•	•	•

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