PART I

Introduction to conservation and conflict

CHAPTER ONE

An introduction to conservation conflicts

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The conservation of biodiversity is an increasingly challenging endeavour. Current pressures from a growing human population have led to concerns of a sixth mass extinction event, bringing mounting pressure to find effective ways of conserving biodiversity (Barnosky *et al.*, 2011). However, our ability to meet this challenge is affected by the fact that not everyone supports conservation objectives. People naturally have different interests and priorities, some of which may be diametrically opposed to conservation objectives. In some cases, these differences lead to damaging and costly conflicts that we see emerging across the world and which present major challenges to modern conservation (MacDonald and Service, 2007).

At a cursory glance, the conflicts that surface around conservation often appear to be about impact: the impact of carnivores on livestock; the impact of wind farms on birds; or the impact of protected areas on livelihoods. Consequently, a common approach to these problems has been to build robust science and develop an evidence base to understand these impacts and find ways of reducing them, often through technical solutions. This approach, however, rarely works for the simple reason that many of these conflicts are about much more than impact. So even if we can develop the science to quantify impacts and show how they can be reduced, the conflicts can stubbornly persist. Indeed, beneath the surface of any of the conflicts discussed in this book is a complex layering of diverse issues related to different world views, issues of trust, power

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imbalances or latent historical issues – issues that lie well outside the sphere of the natural sciences. So, if we really want to understand and tackle these thorny problems, we need insights from other disciplines as well as from the practitioners specialising in resolving conflicts.

The growing recognition of the complexity within conflicts has led many authors to suggest more cross-disciplinary approaches, especially through better integration of ecological and social science (Manfredo and Dayer, 2004; Sillero-Zubiri *et al*., 2007; Treves, 2009; Dickman, 2010; White and Ward, 2010). This book seeks to build and expand on these ideas. One of the difficulties of doing this lies in understanding what the many different disciplines can offer to the understanding and management of conflicts, and which disciplines and conflict-management practitioners we should be working with. In this book we begin to address this challenge. Let's start, however, by defining what we mean by conservation conflict.

Defining conservation conflict

Conflicts are generally defined as 'a state of opposition or hostilities' or 'a clashing of opposed principles' (*Oxford Concise Dictionary*). The term therefore implies action rather than simply a passive reflection on differences and disagreements. So, in conservation, conflicts occur when parties clash over differences about conservation objectives and when one party asserts, or at least is perceived to assert, its interests at the expense of another (Redpath *et al*., 2013). For example, conservation conflicts emerge when people kill predators or destroy important habitats that other people want conserved. Similarly, conflicts emerge when conservation results in the protection of predators or new protected areas that threaten the livelihoods or well-being of other people. These examples are clearly very different, occur at different scales and involve a range of different people, but the principles are the same – conflicts are about clashes in priorities and world views and the imposition of one value system on another.

In the literature, much of the research on conservation and conflicts has been focused on human–wildlife conflict, which has been defined as occurring whenever actions by either humans or wildlife have an adverse effect on the other (Conover, 2002). Despite being widely used, this term is problematic, in part because it falsely suggests that wildlife species are knowingly antagonists in conflict (Peterson *et al*., 2010). In addition, the term focuses attention on the interactions between humans and wildlife. Yet, as highlighted above, this is just one of the components inherent in these conflicts – so the term obscures the underpinning conflicts that occur between those humans who are affected by the wildlife and those humans who are defending pro-wildlife objectives (Young *et al*., 2010). Thus, we consider that it is critical to partition human–wildlife and human–human dimensions, because they highlight very different elements that we need to understand and address. This distinction also helps clarify the main

adversaries involved in conflict, and by doing so it opens up the space and expertise to search for sustainable solutions (Redpath *et al.*, 2014). In light of these terminological problems, we have used the term 'conservation conflict' throughout this book to help disentangle the two components. In reality, of course, the overwhelming majority of so-called human–wildlife conflicts can be considered conservation conflicts because the wildlife species involved are typically of conservation concern (Redpath *et al.*, 2014).

To illustrate our point, consider two very similar situations in the UK. In the first, introduced mink *Neovison vison* have had large impacts on species of conservation concern, and considerable effort has been expended trying to manage this problem (Bonesi and Palazon, 2007). There has been widespread recognition of the problem and broad agreement about the need to reduce the mink population. In contrast, hedgehogs *Erinaceus europaeus* were introduced into the western islands of Scotland where they have also had large impacts on birds of conservation concern (Jackson *et al.*, 2004). Like the mink, considerable effort has been expended on removing hedgehogs. In this instance, however, there were strong disagreements about lethal control and a conflict erupted between conservationists and animal welfare organisations (Warwick, 2012). Both of these issues would be considered to be human–wildlife conflicts. However, while mink, like many other pest and invasive species, certainly present some challenging management problems to reduce impacts, they are not at the centre of a conservation conflict, in a way that the hedgehog is.

The complexity of conservation conflicts

Grey wolves *Canis lupus* and humans have long had an uneasy relationship. Throughout human history, wolves have been viewed as a threat to human life and livelihoods. This in turn has led to the species being extirpated from large parts of its global range (Delibes, 1990; Woodroffe, 2000). More recently, however, other voices have been heard in favour of wolves, either because of recognition of the role they play in ecosystems or because of their inherent right to exist (Mech, 2011). We have moved over time from a 'vermin' control problem to a conservation conflict where groups argue for and against wolves. Recently, these carnivores have returned to parts of their former range, either by spreading naturally, or with the help of reintroduction schemes (Wabakken, 2001; Mech, 2011). These changes and the response to them vividly highlight the complexity of conflict (Nie, 2003; Box 8; Box 15).

There is concern and disagreement about the impact of wolves on livelihoods; there are arguments and uncertainties about the positive benefits of wolves for the ecosystems; there are very deeply held values on both sides of the conflict and anger and passionate arguments for and against wolves both from individuals and from specifically formed groups; there are strong cultural, ethical and moral dimensions that underpin these values and arguments and there are

ongoing legislative battles about how wolves should be managed. In addition, there are researchers, some of whom remain neutral while others become advocates, there are the state and federal authorities who must manage this difficult conflict, and there is a diverse variety of information that influences the managers' judgement, the politicians' stance and the public's opinion – knowledge from experiences of those who live and work in these ecosystems, evidence from scientific studies and articles from the media.

This brief glimpse into this world highlights the bewildering dimensions involved in conflicts. We not only need to understand the impact that wolves have on livestock and ecosystems, including the uncertainties inherent in such research, we need to quantify how negative impacts can be mitigated. More than that, however, we also need to understand the world views, values, beliefs and attitudes of those people involved in the conflict; the moral and ethical arguments involved; why people behave in the way that they do towards wolves; how effective different forms of knowledge and communication are at altering attitudes and human behaviour; how history and economic arguments influence perspectives; what position scientists should take when engaged in the conflict; how decisions should be made about wolf management; if 'top-down' approaches imposed on people will lead to better or worse social and ecological outcomes than 'bottom-up' approaches that involve mediation or dialogue; how people should be encouraged to engage in the search for solutions; how an effective dialogue process should be designed; and what role government, mediators and independent facilitators should play in tackling these problems. These are just some of the complex dimensions that demand a multi-pronged approach and that we seek to cover in this book.

Types of conflict

Throughout the book, a diversity of conflicts is depicted by authors. Each is unique and context-dependent, but at the same time there are similar issues that run through them. Six broad, often overlapping, categories of conflict have been identified (Sidaway, 2005; Young *et al.*, 2010; see also Moore, 1996). This typology partitions the different dimensions of a conflict and helps identify key themes. This, in turn, can highlight what types of information and approaches might be useful in helping our understanding of the specific conflict, and ways of managing it. These categories are as follows.

- Conflicts of interest – two groups want different things from the same habitat or species. This is well demonstrated in the chapters and boxes in this book. A typical example of a conflict of interest is over forest resources, where some groups want to harvest trees, and other groups want to preserve the forest as a habitat for a specific species (e.g. owls; see Box 19).

- Conflicts over beliefs and values – differences exist over normative perceptions, such as perceptions of what human activities should be allowed, or what species should be conserved. These types of values are explored in more detail in Chapters 7 and 10. One example of such a conflict may be related to species reintroductions. For example, stakeholders may have strong beliefs and disagree about whether species such as sea eagles *Haliaeetus albicilla* that can kill lambs should be reintroduced into Scotland or Ireland (O'Rourke, 2014). Deep-set beliefs can be non-negotiable and where they clash can lead to conflicts difficult to resolve.
- Conflicts over process – different approaches to decision-making and fairness taken by different people, groups, or agencies. These conflicts can often be stand-alone, or part of the above two conflicts. An example is when two groups involved in a conflict have very different cultures of how to manage conflict. Another example would be where one group favours a participatory, consensus approach to searching for solutions, while the other group favours a more authoritarian approach.
- Conflicts over information – situations where information is lacking, misunderstood, or perceived in different ways by different stakeholders. As with conflicts over process, often these types of conflict will be embedded in broader conflicts over values or over interest. Perhaps one of the most common conflicts in this category occurs when scientific knowledge is not in line with knowledge held by local stakeholders. In such cases, one form of knowledge is refuted and challenged and can hinder understanding between parties and generate mistrust.
- Structural conflicts – relate to social, legal, economic and cultural arrangements. These conflicts are often latent, involving inequalities between parties, and only becoming apparent once a conflict has become more visible. An example could be a conflict in which a large multi-national corporation has many more resources than a small grass-roots organisation and can exercise power, in terms of legal, political or economic leverage, over them.
- Interpersonal conflicts – relate to personality differences between individuals or groups, including issues of communication and trust. Interpersonal conflicts are inherent not only to conservation conflicts, but to all aspects of society. Interpersonal conflicts can be linked to perceptions of groups and individuals, before such individuals and groups ever actually meet face to face. Such conflicts therefore need to be recognised, and acknowledged as integral to conservation conflicts.

This typology highlights the value of spending time at the outset identifying the types of conflicts involved and the approaches required to find solutions. For example, if a conflict is primarily about beliefs or interpersonal issues, a detailed scientific study of impact may not help greatly in finding solutions. If

the conflicts are over information, there may be merit in bringing stakeholders together to co-produce knowledge and thereby increase shared understanding (Hage *et al*., 2010).

The search for solutions to conservation conflicts

Academic disciplines are essential in helping us understand and tease apart the dimensions inherent in conflict. However, they are often of less help when it comes to searching for solutions. The issue of how we address conservation conflicts raises several important points. First, do we actually want to solve the conflict? In some cases, conflicts can be constructive because they stimulate change (Wittmer *et al*., 2006). However, more commonly they are damaging to people's lives and livelihoods, to relationships between individuals and institutions and to biodiversity (Treves and Karanth, 2003; Woodroffe *et al*., 2005; Box 1). So, assuming we do wish to reduce the negative consequences of conflict, the challenge then becomes finding effective ways of moving away from a damaging, destructive situation to one that improves conservation and livelihood outcomes.

Other issues to consider are what a solution should look like and whose solution we are seeking. Consider the example in the UK of a long-running conflict between conservation organisations and game managers over the illegal killing of birds of prey (Thirgood and Redpath, 2008; Box 3). To put it simply, conservation organisations want more predators in the environment and game managers want more game for their hunting clients to shoot. To many on the conservation side the best solution would be more predators being imposed through enforcement and legislation, possibly without regard to the monetary or social costs to managers and hunters. In contrast, game managers might be more interested in a solution that involves the continued removal of predators from large areas of land managed to sustain their current levels of game. These are the types of adversarial positions we commonly see in conflict. For a variety of very good reasons there is often little attempt from either side to understand and reduce the human–human conflicts that underpin such issues.

The broader idea of conflict resolution is to recognise that conflicts represent shared problems, in this case that both hunting and conservation are legitimate activities, and to determine if parties can be moved from their original adversarial positions to ones of shared agreement. So the solution might involve effective dialogue between both sides, leading to agreement that encourages management activities to eliminate illegal killing, reduces the level of social conflict and allows predators and game interests to coexist. There is good evidence that dialogue improves trust and reduces social conflict, but it is less

clear how this relates to ecological outcomes (Young *et al.*, 2013). From a conservation perspective, the question then becomes: is it better to hold the adversarial position and seek an outcome that would impose high numbers of predators onto an unwilling party, recognising that there will be continued tension and conflicts; or is it better to engage and search for a shared solution, with the recognition that there will realistically need to be some compromise in the numbers of predators? In other words, under what conditions is it better for individuals and organisations to fight an adversary and escalate conflict, rather than seek an acceptable solution through dialogue and discussion? While many practitioners engaged in long-running conflict are likely to seek solutions that reduce the level of conflict, their willingness and ability to do so will depend on issues such as anger, a lack of trust, their underlying values, power imbalance and the leadership of those in authority.

Any resolution process operates within political and legal realities, in addition to the scientific, ethical and practical considerations. These factors can limit the options available. In the case above, for example, birds of prey are legally protected, so a solution that involves any form of lethal control would be difficult to implement unless previously hard-won laws are modified, which is something that conservationists are inevitably going to feel uncomfortable about. So, while legislation can force change (see Chapter 19; Box 4), it can also provide a barrier to change, as stakeholders may take strong positions behind the legislation rather than focusing on solutions and seeking to adapt the legislation accordingly (Heydon *et al.*, 2011).

Engagement and the potential for compromise may often be seen as a weakness by parties engaged in conflict and this may therefore limit the options for dialogue. However, in any dialogue, stakeholders will have aspects that are negotiable and aspects that are non-negotiable. For example, species survival will be a non-negotiable aspect for those from the conservation side. Such aspects may require fundamental a priori agreement among parties. The challenge then becomes seeing if there is sufficient flexibility between the positions of the two parties to find a solution. By engaging in dialogue on raptors in the UK uplands we might not expect hunters to accept high densities of raptors and therefore lose their shooting interests. Similarly, conservationists will not accept illegal killing, or extinction. Here the question would be: is there enough flexibility in the two positions to find a solution that would allow some grouse shooting and some breeding raptors?

In any conflict management process, we must also understand and incorporate the uncertainties involved. There are several different types of uncertainty that need to be considered, including those that relate to the natural systems, or the willingness of people to implement management decisions (Milner-Gulland and Rowcliffe, 2007). The incorporation of an adaptive management framework

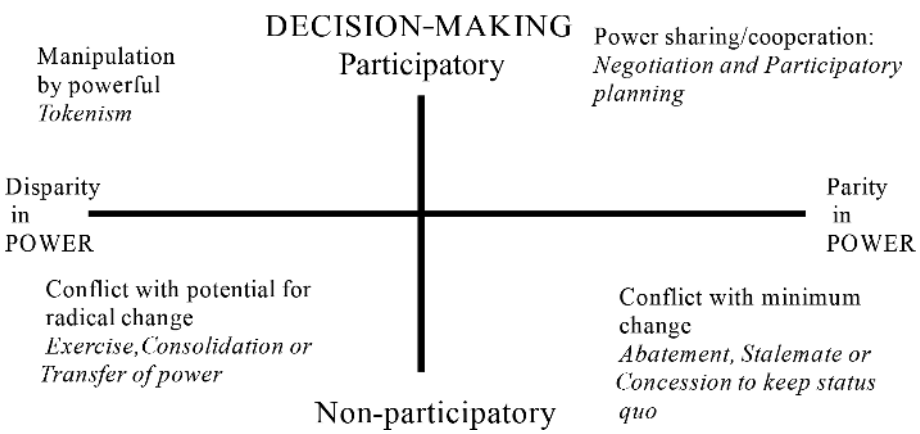

Figure 1.1 Alternative approaches to managing conflicts based on differences in power and decision-making processes (reprinted from Sidaway, 2005. © Sidaway, 2005): the extent to which decision-making is participatory (i.e. inclusive of different stakeholders) is set on the vertical axis. The horizontal axis conveys the power relationships between the stakeholder groups to assess the relative parity or disparity of power among stakeholders.

is therefore an integral part in the development of effective solutions (Holling, 1978).

Given all this complexity, it is worth pointing out that 'silver-bullet' solutions are unlikely ever to be available. We are dealing with multi-layered conflicts that cannot be readily resolved. However, that does not of course mean that it is impossible to reduce and manage the level of conflict in a way that allows coexistence. The complexity means that conflicts can re-emerge unexpectedly and so require long-term management and trust-building.

Conflicts and power

The distribution of power is a central element in conflicts that we have already touched on. A pre-requisite for conflict management lies in understanding the relative distribution of power in the decision-making processes, while understanding that power is dynamic and can shift. Although complete parity is unrealistic, in the context of conflict management, settings can be created that are more or less conducive to the sharing of power between stakeholders. By treating disparities in power and decision-making as independent dimensions, it is possible to represent alternative outcomes of conflicts diagrammatically (see Fig. 1.1).

Arguably, all outcomes on the right-hand side of Fig. 1.1 are stable as long as a relative parity of power between the parties is maintained, while outcomes on the left-hand side of the diagram are potentially unstable, because of relative

disparities of power. In the bottom left quadrant, disparity allows the more powerful stakeholders to *exercise or consolidate their power* and they are assisted by the adversarial, non-participatory system of decision-making. However, the injustices resulting from the disparity of power mean that, eventually, opposing groups may emerge and there is the potential for radical change by the *transfer of power*. During the course of the power struggle, disparities in power may be reduced and the conflict moves towards the bottom right quadrant. Concessions may be made to maintain the status quo, the conflict may subside (*abatement*) or *stalemate* may be reached and the conflict remains in the bottom right quadrant.

At the point of stalemate, the prospect of dialogue becomes more attractive, thus there is an opportunity to change the system of decision-making and, if this is taken, it is possible for the disputing parties to work together. Conflict gives way to *cooperation or collaboration* in the top right quadrant. This sequence of events lends support to the argument that a period of stalemate may be necessary before collaboration is feasible. In other words, the politics of collaboration only become a viable possibility when the politics of power have been exhausted or substantively reduced (Amy, 1987; see also Chapter 19). Collaboration implies that decisions are made collaboratively by stakeholders, or their representatives, including in some cases policy makers, government representatives and legislators, who voluntarily work towards finding a mutually acceptable outcome to the conflict. When the interested parties are prepared to reach an outcome, the stakeholders may collaborate among themselves or they may seek assistance from a neutral third party. This could be an arbitrator who listens to their evidence and recommends a solution in their best interests, or a mediator who helps them seek agreement and create their own solution.

If a system is more participatory without equalisation of power (e.g. see Chapter 19), the more powerful stakeholders can manipulate the situation (top left quadrant) as they are not committed to respond to the needs and wishes of other participants. Involving interest groups in decision-making runs counter to many bureaucratic, legal and political cultures. The powerful can be reluctant to begin, or feel threatened by, negotiating with stakeholders. The powerful may see this as the best strategy for maintaining their power, but the injustice perceived by the powerless may act as a stimulus for their politicisation. It is in these situations that consultative planning exercises can be perceived to be *tokenistic* – 'tell us what you think, although we have already made up our minds'.

The book

There have been literally thousands of academic papers and several books that provide analysis and discussion about a diversity of conservation conflicts. So why, then, does the world need another book? Our motivations were threefold. The first was a personal one. All four editors have been involved in conservation conflicts of one sort or another in our work and were driven by a desire to make