

chapter 6

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Protected areas and the security community

by Anne Hammill

Editor's introduction

Protected areas are often located in remote areas that are subject to conflict, but they can also make important contributions to peace. The security community includes the military, peace and development agencies, and governing bodies that are formulating and enforcing policies related to conflict and peacebuilding. This community increasingly is recognising that protected areas represent numerous strategic interests and are often located in volatile socio-political settings. Anne Hammill has shown the close relationship between protected areas and security, and suggests appropriate roles for the various parts of the security community. The military can help provide assets for biodiversity protection, and engage in practices that are not harmful to protected areas. Peace and development agencies can help to build the capacity of protected area staff in

conflict analysis, help integrate conflict sensitivity into protected area design and management, offer support in conflict management and resolution processes, and integrate protected area activities into post-conflict reconstruction and peacebuilding. The relevant government decision makers can ensure that appropriate measures are taken to avoid conflict in protected areas, ensure that financial and technical assistance continues to be provided to protected areas during times of social unrest and conflict and encourage the appropriate use of protected areas in demobilization, disarmament and re-integration policies in post-conflict situations. The complex links between protected areas, human security and conflict deserve much greater attention, leading to benefits for both biodiversity and rural people.

Photo: Approaching the border of Virunga National Park in the Democratic Republic of Congo (DRC) to track mountain gorillas. The region has been at the centre of violent conflict for decades as armies, militias, poachers and refugees move between Uganda, Rwanda and the DRC.

Introduction: the links between protected areas and security

Issues related to the design, establishment and management of protected areas (PAs) have traditionally been the purview of conservationists, resource managers, and with the advent of community-based conservation, community development practitioners. But with a growing body of research showing that environmental degradation, access to natural resources, and targeted conservation strategies – including the management of PAs – are contributing to and affected by conflict and security, the range of groups interested in PA issues is expanding to include security actors.

The links between PA and security are complex. Protected areas are inherently political, as they are mechanisms of resource control and power, with a wide range of interests seeking access to PA resources. In fact, protected areas represent different things to different interests. For conservationists, they are an effective measure for protecting biodiversity; for private tourism companies, a basis for tourism development; for pharmaceutical companies, a source of genetic information for drug development; for oil and mining companies, an unexplored potential supply of revenue; for the military, a refuge and strategic target during times of violent conflict; and for surrounding local communities, PAs can signify restricted access to livelihood resources, forced relocation, opportunities for income generation through tourism revenues, or a source of ecosystem services. With so many (sometimes conflicting) political and economic understandings of the role of PAs, it comes as no surprise that they can present risks of conflict.

In addition to the multiplicity of interests surrounding PAs, it is important to remember that they exist within complex social and political contexts where issues such as poverty, inequity, contested resource rights, corruption, and ethnic tensions – factors that traditionally contribute to conflict – can further politicize PA policies, creating grievances that, when left unaddressed, can escalate into more open forms of conflict. PAs can also become embroiled in ongoing military conflicts, through their use as strategic bases for combatants or refugee camps in

Uranium mine in Kakadu NP, Australia.



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post-conflict settings. Thus, the (mis)management of PAs can be both a cause and symptom of insecurity.

This chapter will elaborate on why the security community (defined below) has a vested interest in the design and management of protected areas, and how their interests can be best strengthened and translated into mutually supportive policies that contribute to conservation and peace-building goals. It will start with a brief discussion on the links between environment and security, which will set the stage for a more in-depth look at the links between specific environmental concerns (i.e. biodiversity and ecosystem conservation) and certain security interests (i.e. social disruption, violent conflict and peacebuilding). Attention will then be turned to how the security community can contribute to the effective establishment and management of PAs.

Background: the environment as a security issue

Understanding the mutual interest in the relationship between PA and security communities requires an understanding of the broader links between environment and security. The body of work that has analysed and sought to address these links has included academic and conceptual, scientific, policy-oriented and even very practical applications. While at

times confusing and even contradictory, these different approaches to addressing environment and security linkages have brought together researchers, policy makers and practitioners from two seemingly disparate communities to work on new ways of reconciling environmental sustainability with socio-economic issues.

The current interest in environment and security issues can be attributed to two significant political developments at the end of the 1980s/beginning of the 1990s: the end of the Cold War and the resurgence of the environmental movement. The absence of a sharply defined East vs. West political standoff to govern international relations, coupled with mounting concerns over the state of the Earth's environment, left researchers and policy makers contemplating a changing security landscape, prompting some to rethink the definition of 'security' and the forces that threaten it. Research yielding sobering evidence of tropical deforestation, species extinction, ozone depletion, global warming, and air and water pollution, demonstrated that environmental degradation and resource depletion could threaten human well-being – and even survival – just as much or even more than the threat of external military aggression. As Najam (2003) states, "indeed, one could argue that the wrong end of a smoke stack can be as much of a security concern to humans as a barrel of a gun".

The ensuing research and discourse on environment and security consisted of several distinct approaches:

- Conceptual debates over the need to expand or redefine the concept of 'security' to include non-conventional or non-military threats, such as environmental degradation and resource scarcity (Ullman, 1983; Mathews, 1989; Myers, 1993 and Sooros, 1997);
- Empirical case studies explaining how resource scarcity/resource dependence contributes to *violent conflict* – a more tangible and testable condition than 'security' (Baechler and Spillman, 1996; Collier, 2000; Collier *et al.*, 2004; Homer-Dixon, 1994 and 1999; Homer-Dixon and Blitt, 1998); and
- Research on how environmental cooperation – such as international river basin commissions or transboundary protected areas – contributes to peacemaking (Conca and Dabelko, 2002).

In recent years there has been a move towards focusing on environment and 'human security', which focuses on the sub-state or intrastate level, understands the relationship between individual/community security and state security to be a two-way street (i.e., just as secure states can mean secure people, insecure communities can challenge or undermine state security), and recognises that manifestations of 'insecurity' are not limited to violent conflict, but include social disruptions (Najam, 2003). Where does the environment fit into the human security approach? Environmental degradation and resource scarcity is both a cause and symptom of insecurity, ultimately having profound impacts on humans by affecting the availability of and access to resources that are necessary to their health and well-being. Without these crucial environmental resources and services, communities can become further impoverished and more vulnerable to shocks and disruptions such as disease, famine, climate-related disasters, market collapse and war. In some instances, such protracted conditions of vulnerability and insecurity can become grounds for insecurity in the more traditional sense – open violent conflict. Thus, while not entirely shunning matters of state sovereignty or violent conflict, the more people-centred approach of human security, which prioritizes the immediate needs of the most vulnerable and disadvantaged segments of the world's population, provides a more nuanced understanding of the relationship between environment, poverty and social stability.

For conservationists, the links between environment and security are relevant in several important ways. First, as over a decade of research has revealed, environmental mismanagement is a contributor to human insecurity. It follows then that through their work, conservationists may play a role in achieving and sustaining human security. Similarly, conservation is essentially a mechanism of resource control and management, which has implications for a number of stakeholders including resource-dependent communities. Because their work can be intricately linked to the welfare of vulnerable

livelihoods, misguided conservation activities can also play a role in undermining conditions of social stability and peace. It would do conservationists well to be cognizant of the broader socio-political implications of their work, as instability and conflict are ultimately detrimental to biodiversity protection. And finally, conservationists are increasingly called upon to work in areas experiencing potential or open conflict, not only to sustain conservation activities (for example, gorilla protection in war-torn Congo) but to participate in post-conflict assessments and reconstruction. Understanding the links between environment and security issues will ensure that their contributions are integrated into the broader social and economic development agendas.

Thus, whether linking environment and security concerns has been the result of Cold War players looking for “new threats to justify old institutions” (Barnett, 2001), or environmentalists seeking to raise the political status of environmental issues by using a ‘power word’ such as security, there has been a growing consensus that the links do exist and that they warrant further attention. As traditional members of the ‘environmental community’, conservationists have a role to play in analysing and addressing the links. One particular approach to biodiversity conservation that is relevant to the security debate, and which will be the focus of the rest of this paper, is the establishment and management of protected areas (PAs). While central to conservation strategies at global, national, and local levels, PAs are also becoming increasingly relevant to ‘security’ issues – both in traditional (state-centred, conflict-focused) and expanded (human-centred) understandings of ‘security.’

Who is the ‘security community’?

Before going on to explain how the establishment and (mis)management of protected areas are linked to security issues, it is useful first to say a few words about the ‘security community,’ to whom this chapter frequently refers and is largely directed. To many people, the security community consists of those actors and decision makers responsible for protecting their constituents – and interests – from violence and

unrest. Members of this community are usually from the national and international military establishment (army, navy, and UN peacekeepers), domestic security forces (i.e. police forces, coast guard), intelligence services (such as the CIA, Interpol, and MI6), and people in government ministries or departments (i.e. defence, foreign affairs, etc.). Yet the expansion of the security agenda to include non-traditional or non-military threats has conceivably translated into the expansion of the security community to include actors such as international development practitioners, natural resource managers, and health experts.

Nonetheless, for the purposes of this discussion the ‘security community’ refers to three types of actors working on various aspects of conflict issues – i.e. the prevention, management, and resolution of potential or open conflicts, as well as associated recovery efforts. Members tend to include people working in the following sectors:

- a) **Military establishment:** Individuals and groups involved with the support, training and deployment of combat personnel, ranging from high level decision makers, to technical support staff, to ground troops. These individuals and groups can be associated with international military forces (UN peacekeepers, NATO forces, etc.), national militaries, and informal or underground armed groups (rebels or insurgents, terrorist networks, etc.)
- b) **Peace and development agencies:** These actors are concerned with unarmed or ‘soft’ approaches to conflict prevention, management and resolution. They include civil society groups, NGOs, departments in bilateral assistance agencies, UN agencies, and regional organizations. As Anderson *et al.* (2003) describe, their goals are twofold, “both to end war and to build just, sustainable societies that resolve conflicts nonviolently”. Activities range from education and training in conflict analysis and mediation, dispatching civilian peace monitors to conflict zones, and designing conflict-sensitive reconstruction and development programmes, to convening informal negotiations between communities or governments.

The endangered black-and-white ruffed lemur (*Varecia variegata*) is found in the rainforest of eastern Madagascar, and is threatened by habitat destruction and hunting. Recent information indicated that it might be divided into three distinct subspecies. Madagascar and Indian Ocean Islands Hotspot.



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c) **Government and decision makers:** Members of local, regional, national and international governing bodies who formulate and enforce policies related to conflict and peacebuilding. These policies can range from decisions on where and when to take military action, to how to resolve different types of conflict (mediation, economic sanctions, use of armed force, etc.) and guidelines for reconstruction efforts.

Although their specific mandates, policies and practices may differ, each of these members of the security community has strategic interests associated with protected areas. The first step in engaging these members in protected areas issues is to outline the links between PAs and peace/conflict.

Description of the security community's interest in protected areas

The security community's interest in protected areas lies in both the challenges and opportunities they present for peacebuilding. This is not to overstate the role of PAs in preventing violent conflict or brokering peace deals. Obviously the forces and conditions that shape local and regional security dynamics are much broader and more complex than the need to conserve biodiversity and sustainably manage natural resources. But in some parts of the world, PAs can contribute or help sustain conflict situations, or conversely, play a role in promoting peace,

cooperation and sustainability in post-conflict reconstruction processes.

Geography plays an important role in determining the relevance of protected areas to security interests, as not all regions in the world are equally endowed with biodiversity. In some parts of the world, namely developing countries, protected areas and nature conservation can be highly politicized endeavours that feed into broader social justice problems. As Brechin *et al.* (2002) observe:

“...most areas considered to be high-priority ‘hot spots’ are also social and political ‘hotbeds.’ These rural areas in countries such as Colombia, Brazil, Madagascar, Tanzania, Malaysia, Indonesia and the Ivory Coast often feature high levels of poverty, insecure land tenure and landlessness, unstable and/or undemocratic political systems, and histories of state-sponsored repression.”

Moreover, because PAs are zones with a relatively high concentration of economically-valuable natural resources (timber, wildlife, and plant genetic resources) and are often situated in frontier regions at the fringes of state control, they attract a wide range of interests and stakeholders, such as tourism agencies, oil and mining companies, guerrilla groups, pharmaceutical companies, the military, and development banks. With so many strategic interests represented in geographically defined areas and embedded in complex and sometimes volatile socio-political settings, it is hardly surprising then that protected areas should garner the attention of the security community.

Protected areas and conflict

The role of PAs in creating and sustaining conflict can take various forms. As instruments of resource control, they can be a direct cause of social instability, which can sometimes lead to violence. For surrounding rural communities, the establishment of a protected area often signifies restricted access to livelihood resources or even forced relocation, which can undermine economic security and socio-cultural identity. According to Brechin *et al.*, (2002), “For outsiders looking in, such as resource-dependent

agrarian communities, protected areas are not necessarily understood as a means of providing ecological and economic services but rather as territorial control strategies.” Even where provisions are made to allow for limited local resource access or to financially compensate communities, crop damage from wild animals, unequal distribution of benefits, conflicting resource rights regimes (statutory vs. customary) and exclusionary and/or non-transparent decision-making processes can continue to fuel tensions.

The perceived imposition of unjust policies associated with the establishment of PAs can become catalysts for violent conflict. In areas with ethnic tensions, widespread poverty, unemployment, land shortages, and/or recent histories of violent conflict, the impacts of PA strategies may mobilize group identities and serve as a rallying point for resistance and opposition against government authorities. Where the implementation of conservation interventions brings up memories of elite control and colonial power dynamics, protected areas can symbolise legacies of imperial domination. Thus it is important to recognise that:

“...the conservation community...contributes heavily to shifts in power dynamics in rural areas that are already highly politicized. This is a result of [the community’s] relative wealth and influence compared to most local actors. In short, conservation practices are not benign. They alter the local playing field, sometimes drastically” (Brechin *et al.*, 2002).

Apart from directly contributing to emergence, escalation and incidence of conflict, PAs can also play a strategic role in sustaining ongoing military conflicts. The remote and relatively inaccessible location of some PAs can make them refuges for military groups, as they offer physical protection, food, water, fuel and medicine. The high concentration of wildlife can provide a ready supply of bushmeat for armies. Guerrilla groups in Colombia, Sierra Leone, Burundi, India and Nepal, for example, have established bases in protected areas, sometimes costing parks staff their lives (Austin and Bruch, 2003; McNeely, 2000). As a result, protected areas can become strategic targets in military operations. Some

groups may deliberately contaminate water supplies and defoliate or burn forests in order to deprive opposing forces of shelter and resources. In 1991 the Rwandan army cut 50–100m wide swathes of bamboo forest that link the Virunga volcanoes in order to minimize the risk of rebel ambushes (Kalpers, 2001).

In addition to providing physical support to military groups, resources in protected areas help to finance military operations. Wildlife, timber, oil or minerals can be plundered and sold to local and foreign markets in order to pay troops and purchase weapons. For example, the Angolan rebel group UNITA (National Union for the Total Independence of Angola) reportedly financed their military campaign through sales of ivory, teak, oil and diamonds (Austin and Bruch, 2003). Similarly, in Mozambique, elephant poaching and the ivory trade helped finance insurgent activities, while Charles Taylor’s coup in Liberia was made possible through revenues from timber and valuable minerals (Boutwell and Klare, 2000). Moreover, the consequences of financing wars with natural resources from protected areas extend further than immediate biodiversity loss or ecosystem degradation. According to Austin and Bruch (2003),

“Aside from depriving a country of capital that is desperately needed for development or social programs, financing wars with natural resources prolongs the misery of war and often wreaks greater environmental harm, as constraints and mitigation requirements that may be placed on resource extraction during peacetime are ignored in the urgency of conflict. The emphasis of short-term gains over long-term sustainability drains national resources and makes it more difficult to return to peaceful life after the conflict.”

In fact, post-conflict settings give rise to new security concerns associated with protected areas. Refugees, internally displaced people (IDP) and demobilized troops may move into protected areas, as they contain unsettled lands and livelihood resources. In some instances, resettlement in PAs has been encouraged by governments when no other land is available and the overarching priority is to establish peace, address immediate humanitarian needs and create some semblance of order. Following the

A memorial honours Virunga Park guards killed on duty.



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Rwandan genocide in 1994, 50% of the country's population was estimated to be displaced or temporarily settled. Hundreds of thousands of refugees crossed the border into the Democratic Republic of Congo and settled in and around Virunga National Park (Lanjouw, 2003), while the Rwandan government opened portions of Akagara National Park to resettlement and considered proposals for degazetting 5% of Volcanoes National Park to accommodate IDPs. The acute need for land, shelter and resources that leads displaced and demobilized populations to PAs (and their immediate surroundings) has the potential for fuelling further tensions and conflict. When host communities, who are also dealing with the social and environmental consequences of war, are faced with competition for livelihood resources from refugees and displaced people (sometimes of different or previously opposing ethnic groups), tensions can rise and conflicts can (re)ignite. When considered against a background of widespread arms circulation, demobilization, and general disorder and confusion in post-conflict settings, the gathering of different groups in refugee camps or settlements around relatively resource-rich protected areas can become a flashpoint of conflict.

Protected areas in post-conflict reconstruction and peacebuilding

While the discussion above has outlined some of the potential security threats associated with protected areas, it is important to note that they can also play a

positive role in post-conflict reconstruction and peacebuilding. Among the most prominent examples of this potential are transboundary protected areas (TBPAs). TBPAs are being established at a remarkable rate: In 1998 there were a total of 59 transboundary complexes involving 136 areas; by 2001, the number had jumped to over 169 complexes involving over 666 areas. This recent proliferation of TBPAs is generally welcomed as a sign of good will and cooperation, particularly in areas with relatively recent histories of conflict. In fact, TBPAs represent the confluence of several seemingly mutually reinforcing interests, namely those of biodiversity conservation, economic development, cultural integrity and regional peace and security. The possibilities are impressive: large, contiguous ecological habitats that simultaneously protect biodiversity, create widespread opportunities for tourism development, alleviate poverty, reunite previously separated ethnic groups, and promote good political relations between neighbouring states.

This latter point has led some TBPAs to be called 'Peace Parks', although their actual peacebuilding potential and impact is rarely evaluated systematically. Cooperation and peacebuilding is an assumed outcome of bringing together different – sometimes previously opposing – stakeholders for the common purpose of managing biodiversity and protecting livelihoods. This assumption is drawn from a broader literature on 'environmental peacemaking', which claims that environmental cooperation can have positive spin-offs for peace. As Conca and Dableko (2002) explain:

"The basis for this [environmental peacemaking] claim lies partly in the general conditions understood to facilitate cooperation, partly in the issue characteristics common to many environmental problems, and partly in the kinds of social relations that are engendered by ecological interdependencies."

They go on to describe two ways in which environmental cooperation may occur:

1. "Changing the strategic climate": Exploiting environmental problems as opportunities in conflictual situations. That is, using discussions

over environmental issues as a means to create at least minimum levels of trust, cooperation, and transparency between actors, thereby improving the ‘contractual environment’ in the bargaining process; and

2. “Strengthening post-Westphalian governance”: Looking outside of formal, state-sanctioned negotiations to broader social dynamics – i.e. using environmental concerns to deepen trans-societal linkages, strengthen regional identities, and transform state institutions to become more open, democratic and accountable.

TBPAs have the potential to promote environmental cooperation along both pathways. For example, the technical cooperation needed to establish and manage PAs across borders could serve as an opening to other forms of cross-border cooperation, while the opening of borders to allow for animal migrations and personnel exchanges may deepen trans-national relations and regional identities, thereby lessening the incentives for conflict. TBPAs may therefore prove to be one of the more viable opportunities for peacebuilding in a post-conflict setting.

Related to but not exclusive to TBPAs are the economic opportunities associated with PAs and their role in promoting social stability and peace. Although the establishment and management of PAs is a highly politicized process, particularly in conflict-prone regions, when done right PAs can offer opportunities to resource-dependent communities to diversify their livelihood options and generate supplemental incomes, namely through tourism revenues and other community development benefits. For example, tourism operations in PAs can offer employment opportunities to local community members, mostly to work as park rangers or general labourers; create or enhance the market for locally-produced goods (food, handicrafts, etc.); improve local infrastructure such as roads and water supplies; and fund community institutions such as schools and churches through revenue-sharing schemes. The benefits of PAs can therefore increase human security for surrounding PA communities, addressing some of the root causes of violent conflict and promoting peace.

How can the security community contribute to protected areas?

Having outlined how PAs can contribute to both peace and conflict, how can the security community contribute to PAs? Just as decades of lessons in conservation and development can inform our understanding of ‘security’ and the forces that threaten it, the security community can play a role in the design, management and protection of PAs, particularly for those located in conflict zones. Below are some suggestions of how the different members of the security community can contribute to PAs.

Roles for the military. Because military actors are political and by definition linked to armed conflict, involving them in PA activities can be a sensitive topic – i.e. there is a fear of militarizing protected areas, which is not only counter-intuitive but detrimental to their conservation mandates. That said, the military establishment can contribute to PAs in a few relatively benign ways:

1. **Share or donate assets for biodiversity protection:** Many protected areas continue to be underfinanced and insufficiently equipped to monitor and evaluate ecological conditions. Access to assets such as satellite imaging and communications technology would certainly fill this gap. Satellite imaging could assist with monitoring land use changes, while communications equipment would help staff members working in large PAs, such as TBPAs,

A transboundary protected area agreement being signed on 11 June 2001 between Lesotho and South Africa at Sehlabathebe National Park in Lesotho.



to maintain regular contact and inform each other of important developments (poaching activities, disease outbreaks, rebel movements, etc.).

2. **Green military practices:** Although environmental protection is not a priority for military actors (in fact, environmental destruction may be part of a military strategy), efforts can still be made to raise awareness of and provide alternatives to PA destruction in armed conflicts. Declaring PAs (especially World Heritage Sites) as ‘no-go’ zones, or heightening security around PAs to prevent incursions are two simple (simplistic?) options, as are policies against poaching, water contamination, and clearcutting.

Roles for peace and development agencies. Because PA managers and staff members are finding themselves working in areas of potential or open conflict, there is an increasing need to build their understanding of conflict situations and adapt their work accordingly. Peace and development practitioners can help conservationists assess and redesign their operations so that security risks are minimized; conflict-sensitivity is integrated into PA-related activities and opportunities for peacebuilding are maximized. This type of support can take a number of shapes:

1. **Build capacity of PA managers/staff in conflict analysis:** PA managers and staff usually have technical and scientific backgrounds in natural resource management/ecosystem management. Moreover, they operate under mandates which generally require them to measure the impact of their work according to biologically or environmentally-defined criteria. While this is not to underestimate the intimate knowledge that local PA managers and staff have of the social and political forces that affect their work, those working in conflict zones should be trained to understand the conflict setting and how their work is directly and indirectly linked with the root causes of conflict. The security community can certainly offer insights and tools for analysing such relationships, such as conflict analysis/assessment frameworks, checklists, indicators, etc.

2. **Help to integrate conflict sensitivity into PA design and management plans:** Building on the point above, PA authorities can reflect their understanding of the links between PAs and peace/conflict dynamics by integrating conflict-sensitivity into their work. In other words, they must assess and adapt their work to ensure that, at the very least, PA-related activities do not exacerbate tensions or contribute to conflict, and ideally that they strengthen human security and peacebuilding. Again, the security community can facilitate this process and use examples from the humanitarian, development and business sector to highlight how conflict-sensitivity can be achieved.

3. **Offer support in conflict management and resolution processes:** Because PA managers and staff can become directly or indirectly involved with local and regional conflicts, they can find themselves in positions of trying to manage or resolve conflicts. While conservationists have developed some guidelines for addressing PA-related conflicts (Lewis, 1996), a continued dialogue with the security community on the development and use of different and emerging conflict management and resolution strategies would strengthen their position.

4. **Integrate PA activities into post-conflict reconstruction and peacebuilding programmes:** Natural resource and environmental services are closely tied to the livelihoods and human security of many vulnerable communities in conflict zones, and yet environmental considerations are usually overlooked in post-conflict settings when more immediate needs take priority. As such, conservation activities should become central components of at least some reconstruction and peacebuilding programmes. Engaging communities in activities within and around PAs – either in (re)building park infrastructure, monitoring poaching activities, carrying out ecosystem assessments, developing the tourism plans, etc. – may present some win-win options.

Roles for government decision makers. Finally, for government decision makers, the biggest contribution they could make to PAs is to establish a policy environment and regulatory framework that enables the implementation of the recommendations above. This might include developing or strengthening policies that:

1. **Ensure that all measures will be taken to avoid conflict in and damage to PAs, particularly World Heritage Sites.** For example, further developing and adopting IUCN's Draft Convention on the Prohibition of Hostile Military Activity in Protected Areas.
2. **Provide for continued financial and technical assistance in PAs during times of social unrest and conflict.** Environmental protection is often perceived as a luxury during times of crisis, leading authorities to divert funds from conservation activities such as PA management. Recognising the complex links that exist between PAs, human security and conflict, and maintaining a minimal amount of support and training for PA managers and staff during times of escalating or open conflict can prove to be an investment in conflict resolution and post-conflict reconstruction.
3. **Promote Peace and Conflict Impact Assessments (PCIA) of PAs.** Just as government policies require Environmental and/or Social Impact Assessments (EIA or SIA) of development projects/programmes, there should be a requirement for PCIA for PAs situated in conflict zones. The process would raise awareness of the different links between PA activities and peace/conflict dynamics, and force PA managers to rethink activities so that conflict risks are minimized, and peacebuilding opportunities are maximized.
4. **Encourage the use of PAs in demobilization, disarmament and reintegration policies in post-conflict situations.** Where appropriate, the restoration, management and operation of PAs should be integrated into post-conflict policies so that the parallel and complementary goals of biodiversity protection and peace-building can be simultaneously met. This can include guidelines for offering PA-related employment opportunities and training to demobilized soldiers or including PA eco-tourism and community development schemes as part of reintegration programmes.

Conclusion

The links between protected areas, human security and conflict are complex. This chapter has attempted to summarise some of them, highlighting both the positive and negative impacts PAs may have on security dynamics. Much of this is not new to conservationists – they have long searched for an optimal resolution to people vs. nature conflicts, where biodiversity protection goals are not met at the expense of social and cultural concerns. Similarly, in the wake of rising levels of local and regional violent conflicts, conservationists have been developing guidelines and management strategies for maintaining basic levels of biodiversity protection in times of conflict (Shambaugh *et al.*, 2001). These efforts have been met with varying degrees of success. Bringing in the security community to buttress these efforts could be an effective way of addressing the gaps, helping PA authorities to maximize the peacebuilding opportunities and minimize the conflict risks associated with their work.