



Newsletter from African protected areas

#158, December 2021 – www.papaco.org



Editorial

GEOFFROY MAUVAIS

IUCN-PAPACO COORDINATOR

FAREWELL, BÉA!



That day in late 2008, the air is suffocatingly hot. I am having lunch in a small restaurant with a young woman – a vet also, who has requested to meet me. She is working for a regional organization on an animal health project. But her real calling is actually... nature conservation.

These are the early days of Papaco. Our needs are quickly growing, funding is slower to come by. I mention the possibility of volunteer work, without believing it myself. Why give up her stable position and take such a risk? And yet, a few weeks later, Béatrice resigns from her job and shows up at the office – ready to start immediately.

This is the start of a long and fascinating journey into nature conservation in Africa.

Béa is detail-oriented. She likes being precise. She hates cutting corners and does everything she can to ensure that work is carried out perfectly, and till the end. This can be hard to manage given the amount of things, in our work, that turn out to be beyond our control. Regardless, she has the patience and determination to ensure things are done the way she wanted and planned them to be.

From the start, she thrived in evaluating protected areas. With perfect mastery of method, concepts, and tools, Béa tagged along all sessions to evaluate the efficiency of the management or governance of parcs. She is educational,

serious, empathetic.

Educational because there is a need to explain why and how we do evaluations, so that they may become more than data sources for the park – progress lanes for their staff. Serious, because the evaluations require us to be rigorous and to master a batch of complex concepts which cannot be implemented by amateurs. Empathetic because those who take part in this work must perceive it as an opportunity rather than a burden. They must eventually be able to appropriate this work, which only happens if they come to realize its benefits.

No wonder then that she went head first into the onsite trainings run by Papaco, and then into our MOOCs, and into setting up the Green List process in Kenya and later on in other countries. And this took place in the early stages of the process, when everything was still being built! Her work, her field experience allowed us directly and indirectly to brainstorm the Green List label, to test various approaches for its implementation, and eventually to reach the stage where the first African sites made it on the list – in Kenya precisely, where she lives since 2012.

Time flies and with it, things change. For Béatrice, time has come to move to new horizons in her life and to start helping African parks through new channels, with new companions. She will leave Papaco this month; a chapter closes.

Béa, I am immensely happy to have been lucky enough to work with you all these years. Despite the hardships we faced, I don't think we ever abandoned our projects. We cannot say we succeeded in everything, but we always gave it a try! Smiling. You have been an exceptional asset for Papaco, and you will be one in your next job, near those who will be lucky enough to enjoy your company.

Our community will remain your family. For sure, we will keep working towards the same goal, the things we love and with those who share this love. So, see you very soon, and happy adventures!

MOOC Conservation

MOOCS

Registrations closed. Registrations for the ongoing session are closed. Registered students have until 19 December to finish the courses they're busy with. Remember to download your attestation of success before access to courses is suspended.

Ongoing session: 1 Sept. - 19 Dec. 2021 (midnight).

MOOC registrations: mooc-conservation.org.



THE ESSENTIALS

Exams reset. Every MOOC session we reset Essential scores. So you can have another go at trying to obtain the attestation of participation.

What are they? They are short courses geared to a specific profile of protected area conservation actors.

Four options are possible: Rangers, Managers (involved in Research R or in Law enforcement L) and Leaders.

The Essentials are open throughout the year.

Inscriptions : mooc-conservation.org



RANGER ESSENTIAL
For protected area (PA) professionals who apply decisions and ensure the implementation of activities inside the PA.



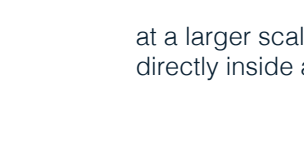
MANAGER ESSENTIAL
For protected area professionals who need to plan, manage and assess the work carried out by field agents.



→ **MANAGER LAW:** focuses on law enforcement and the valorisation of the PA and its natural resources.



→ **MANAGER RESEARCH:** focuses on research activities, monitoring-evaluation and ecological monitoring.



LEADER ESSENTIAL
For actors who are influencing the protected area context at a larger scale, without necessarily working directly inside a protected area.

Ambassadors etc.

STUDENT GATHERING IN KISANGANI

A group of MOOC-Conservation students met this weekend in Kisangani. Organised by Ambassador Richard Mandandi, this event brought together a dozen of participants despite the fact that students are currently busy with university exams. Other students have expressed their interest in participation to another gathering after their exams are over.



and NGOs from villages bordering Comoé National Park (PNC) to raise awareness on the importance of conservation.

This activity took place over three days. Its goal was to strengthen the capacities of local communities' leaders and it was an opportunity for the MOOCs ambassadors, KONÉ Mamadou and YEO Tiérignimin Bernadette, to organise coaching sessions for participants wishing develop their capacities through the seven MOOCs offered by IUCN-Papaco.



LOCAL COMMUNITIES AWARENESS IN COMOÉ NP

MOOC-Conservation's ambassadors in Côte d'Ivoire, the Ivorian Network for the Protection and Valorisation of Protected Areas (RIPVAP), in collaboration with the Ivorian Office of Parks and Reserves (OIPR), held their first meeting with traditional authorities

AMBASSADOR ? An ambassador is a designated Papaco MOOC student who volunteered to help students in his/her city or region.

Website with all ambassadors: [here](#).

List of ambassadors (click on the name to send them an email):

- [Benin, Kévin](#)
- [Bouaké, Bernadette](#)
- [Burkina Faso, Valéry](#)
- [Burundi, Léonidas](#)
- [Comoros, Humblot](#)
- [Côte d'Ivoire, Mamadou](#)
- [Douala \(Cameroon\), Mathias](#)
- [Gabon, Brice](#)
- [Guinea \(Conakry\), Moussa](#)
- [Haïti, Talot](#)
- [Kara \(Togo\), Yenhame](#)
- [Kenya, James](#)
- [Kindu \(DRC\), Ohm](#)
- [Kinshasa \(DRC\), Emmanuel](#)
- [Kisangani \(DRC\), Richard](#)
- [Mali, Seydou](#)
- [Lomé \(Togo\), Valentin](#)
- [Lubumbashi \(DRC\), Albert](#)
- [Madagascar \(Tana\), Raymond](#)
- [Morocco, Rachid](#)
- [Mauritania, Fall](#)
- [Niger, Oumarou](#)
- [Nigeria, Michael](#)
- [Pointe Noire, Charmand](#)
- [Rwanda, Leonard](#)
- [Senegal, Thiam](#)
- [Chad, Seid](#)
- [Tunisia, Moadh](#)
- [Yaoundé \(Cameroon\), Pascale](#)
- [Zambia, Chewe](#)
- [Zimbabwe/South Africa, Fanuel](#)
- [Diffa \(Niger\), Omar](#)



Featuring this month



‘PROTECTED AREA GOVERNANCE AND MANAGEMENT’

Protected Area Governance and Management presents a compendium of original text, case studies and examples from across the world, by drawing on the literature, and on the knowledge and experience of those involved in protected areas. The book synthesises current knowledge and cutting-edge thinking from the diverse branches of practice and learning relevant to protected area governance and management. It is intended as an investment in the skills and competencies of people and consequently, the effective governance and management of protected areas for which they are responsible, now and into the future.

The global success of the protected area concept lies in its shared vision to protect natural and cultural heritage for the long term, and organisations such as International Union for the Conservation of Nature are a unifying force in this regard. Nonetheless, protected areas are a socio-political phenomenon and the ways that nations understand, govern and manage them is always open to contest and debate. The book aims to enlighten, educate and above all to challenge readers to think deeply about protected areas—their future and their past, as well as their present.

The book has been compiled by 169 authors and deals with all aspects of protected area governance and management. It provides information to support capacity development training of protected area field officers, managers in charge and executive level managers.

The entire book is freely accessible online in English on the Australian National University's website: <https://press.anu.edu.au/node/372/download>.

CHAPTER 16 MANAGING THREATS

V. B. Mathur, Malvika Onial and Geoffroy Mauvais

Introduction

Protected areas inter alia aim to support the persistence of biodiversity and the conservation of natural and cultural heritage. While the definition of protected areas may be interpreted in more than one way, the concept of protected areas has been adopted by countries across the world and adapted according to their specific national or local contexts. Protected areas do perform important conservation functions and protect biodiversity, especially from indiscriminate destruction; however, even when protected areas appear to be maintaining their values, they

may be undergoing imperceptible changes and declines, leading to ‘half- empty forests’ with loss of biodiversity. Protected areas all over the world are beset by a host of threats that undermine the aims of conservation. Protected area management needs to develop the capacity and apply innovative and adaptive approaches for handling a range of complex and often interrelated threats that not only stem from issues specific to an individual protected area but also are driven by factors well beyond protected area boundaries and control.

This chapter provides, first, a description of threats to protected areas and offers a classification of the nature and characteristics of threats based on the protected area threat classification given by Worboys et al. Next, the chapter discusses generic approaches to responding to threats like encroachments on protected areas, human consumption of ecological assets, poaching of wildlife, fertiliser use (nitrogen

deposition), overharvesting of fish stocks and climate change. Finally, the chapter discusses the importance and the application of principles of good governance in managing for threats.

Classification of threats

The Convention on Biological Diversity (CBD) has defined a threat to a protected area as ‘any human activity or related process that has a negative impact on key biodiversity features, ecological processes or cultural assets within a protected area’. Threats to protected areas may also arise from natural causes and events such as natural fires, earthquakes, floods, and so on. Threats jeopardise the protected area’s values and are closely linked to them. Thus, they are very diverse in nature and what may be a threat somewhere may not be seen as such in another protected area or may evolve through time and go on to become a threat. It is difficult to establish a comprehensive global list of threats to protected areas, although various threat assessment frameworks have classified and assessed threats to protected areas, biodiversity and ecosystems.

They have done this in different ways. The International Union for Conservation of Nature (IUCN) Conservation Measures Partnership (CMP), for example, developed a classification of threats to biodiversity in order to provide a unified scheme for classifying threats globally. This Unified Classification for Threats and Actions is constructed in a tiered manner, with direct threats classified at three levels (analogous to families, genera and species in the Linnaean system of biological classification). What this means is that a

threat to biodiversity identified at the first level is subdivided into several second-level entries that in turn are subdivided at a third level (Figure 16.1).

With specific regard to protected areas, Worboys et al. developed a classification of threats and underlying causes that drive threats, both direct and indirect, to protected areas. This classification, while not organised in a hierarchical or tiered fashion as in the classification by Salafsky et al., shares a similar conceptual approach to analysing threats to protected areas as direct and indirect, identifying the underlying causes and managing protected areas for conservation actions that address such threats. Worboys et al., in particular, distinguished direct and indirect threats by their spatial characteristics, as explained in the next section.

Understanding threats through such a framework is intended to help protected areas managers and frontline staff to identify threats in their protected areas, learn about other protected areas and the kinds of threats faced, and how these can be tackled. Threats have also been classified into external and internal threats in the context of Indigenous Peoples’ and Community Conserved Territories and Areas (ICCAs), which are often vulnerable to the negative impacts of threats in a way that is different from other types of protected areas.

Direct threats

Direct threats result from proximate (in general, within the protected area) human activities or processes that cause the degradation of protected area values and hinder progress towards meeting its conservation goals. Direct threats

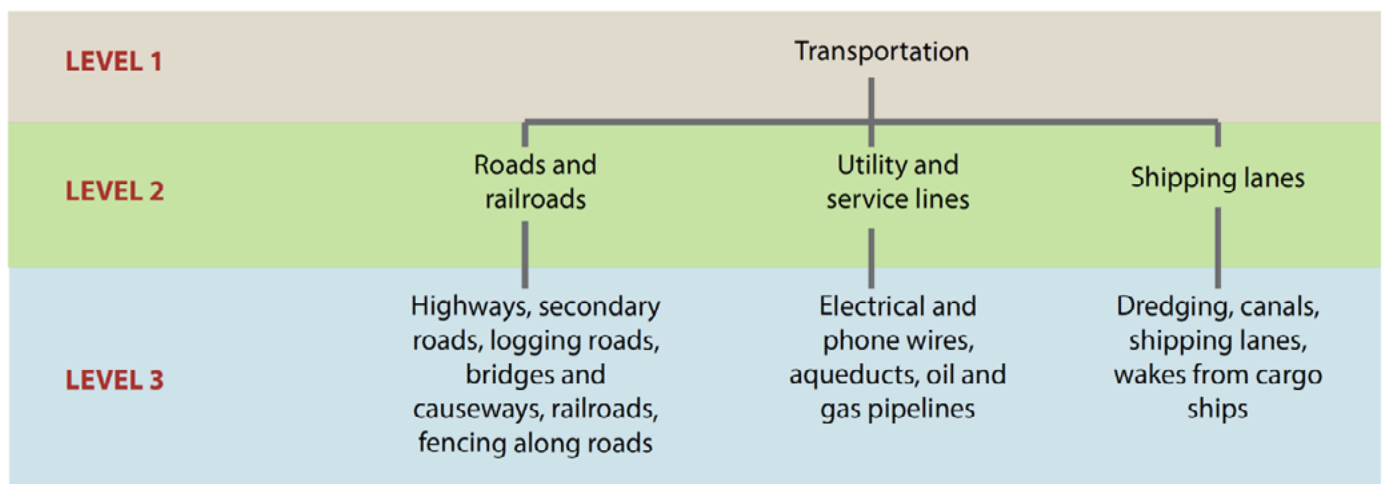


Figure 16.1 Example of a three-level threat classification

Source: Adapted from Salafsky et al. (2008)

can often be—but are not always—caused by human activities that may be tackled by appropriate management interventions. Direct threats also result from natural events such as fires and tsunamis, among other extreme natural events or cataclysms. Direct threats range from on-site pollution, water withdrawal and tourism infrastructure development within the protected areas to illegal activities, invasive species and war and civil conflict.

Indirect threats

Indirect threats are those that arise from outside protected areas, but which affect values within protected areas and jeopardise their conservation goals. Indirect threats include climate change and off-site activities such as pollution, damming of rivers, diversion of water, application of pesticides to crops and land-use changes around the protected area that are incompatible with protected areas and also reduce landscape connectivity.

Underlying causes

Underlying causes are the factors that ultimately drive threats to protected areas. These are usually economic, social, political, institutional or cultural factors that contribute in an interrelated way to create one or several direct and indirect threats. Among the many underlying causes of threats are human population growth, growth in consumption, economic development aspirations and activities, weak or inadequate legal systems, powerful vested interests, imbalance of power, poor decision-making, lack of political will, absent or weak tenure and rights regimes, policy failures, and contradictory or opposing values

Both evaluation and planning for improved management need to take into account the interrelationships between the threats and to identify their root causes, if effective and sustainable management solutions are to be devised and implemented. Moreover, many threats relate to the interface between conservation and human welfare and therefore are very challenging to resolve. This is even more so in regions with rapidly growing populations and developing economies. Many other threats relate to deeply set patterns of development and consumption that are hard to change, which is especially so in industrialised countries and among rich populations of all countries.

Threat assessment and management

According to the CBD’s Programme of Work on Protected Areas (PoWPA), a protected area threat assessment should include an analysis of the type, extent and impact of a range of threats on the health and integrity of biodiversity within a protected area. The typical steps involved in assessing threats to protected area biodiversity are described in Figure 16.4.

A number of management tools are available for assessing threats and some of these may be found on the CBD website, including an e-course on threat management. Other tools are included in protected area management effectiveness assessments such as the Management Effectiveness Tracking Tool and the Rapid Assessment and Prioritisation of Protected Area Management (RAPPAM) methodology. With these tools, threats are usually linked to the values that the protected area is trying to conserve.

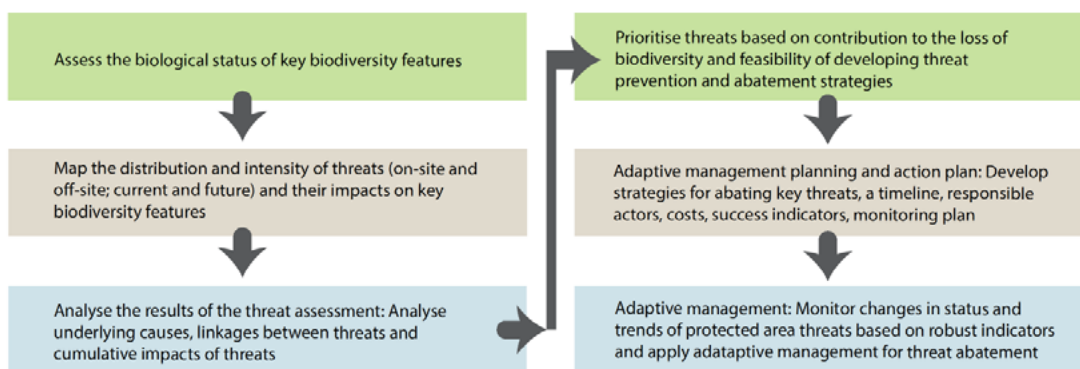


Figure 16.4 Key steps in assessing threats to biodiversity in protected areas

Source: Adapted from CBD (2014a)

Planning conservation actions to address threats

General management actions include setting priorities, developing a situation analysis, designing and implementing a strategic plan, developing and implementing a monitoring plan, and analysing and communicating results. They also include fundraising, reporting, administrative work, and developing and managing the institutions associated with a protected area. At times they may involve the creation or strengthening of institutional structures for the purpose. Specific conservation actions, in contrast, are specific interventions to counter specific threats to biodiversity or restore degraded biodiversity targets. Strategies and action plans for managing threats must be guided by desired conservation outcomes that should be identified as clearly as possible early in management planning.

Any entity (government, non-governmental, community or co-management) responsible for managing a protected area would ideally have a management plan (formal or informal) that is designed to take into account actual and potential threats to the protected area, the consequences of such threats and ways in which to avoid or mitigate them. Although managing threats to protected areas is based on the precautionary principle, particularly for threats with severe and potentially irreversible consequences, often management responses may be driven by situational factors specific to the local history and prevalent economic and political climates. The importance of applying adaptive management based on the evaluation of results and lessons learnt so that it can evolve according to the dynamic requirements of protected area conservation is also well recognised. At the same time, a focus is needed on specific conservation activities that address threats and the management and monitoring of these actions are important.

Management zoning and sustainable-use limits

Management planning for protected areas typically employs planning tools, zone management schemes, models and techniques that address threats and seek to minimise their negative effects. Some protected areas are spatially differentiated into zones with specific management objectives that will address the potential threats—for example:

- a core zone where human activities are disallowed

other than for necessary management or occasional sociocultural uses

- a buffer zone, which is intended to act as a buffer for the protected area nested in the larger landscape; a buffer zone is often a multiple-use zone where management allows for different levels of resource use and extraction, which may be carried out based on rights-based approaches for local communities or for government revenue collection
- a recreation or tourism zone where visitor management is key.

Limits on resource use or visitor numbers are applied by protected area management to ensure sustainable use—for example, the amount of small timber that may be extracted by forest-dependent communities, the number of grazing permits for livestock or the number of tourists allowed to visit a protected area each day. Defining limits on resource use is increasingly sought through a consultative process by or with communities, researchers and protected area managers using a rights-based approach that respects traditional and customary rights.

Prescriptions for visitor-use limits need to be clearly worked out if threats to the natural and cultural heritage values of protected areas from excessive tourist numbers or inappropriate tourism are to be avoided. Recreational planning frameworks such as the recreation opportunity spectrum and other recreational opportunity management systems as well as visitor impact management frameworks can help identify threats and minimise social and environmental impacts. Moreover, community-based and community-run tourism offers opportunities for equitable management of protected areas and promotes sharing of tourism revenue and other benefits with local communities.

Using environmental impact assessment to address threats

Environmental impact assessment is a process that many countries around the world follow to help harmonise development proposals with conservation needs. Sometimes, however, the nature of developmental activity is such that addressing threats effectively lies beyond the scope of a conventional environmental impact assessment process.

This is particularly true for mining and other extractive industries, and each sector has its specific processes and rules. Another example, hydropower development, may involve the construction of a series of dams (big, medium and small) whose impact potential cannot be gauged by the case-by-case approach as practised in environmental impact appraisal. Mitigation of threats in such situations may be better addressed by a cumulative environmental impact assessment or strategic environmental assessment. Global experience suggests that environmental impact and cumulative environmental impact assessment processes are relevant to address threats arising from specific development processes. To meet the larger challenge of effectively addressing the upstream and downstream impacts of development projects in a holistic manner, there is, however, a need to conduct environmental assessments at a strategic level.

Strategic (or sectorial) environmental assessment is a participatory approach for upstreaming environmental and social issues to influence development planning, decision-making and implementation processes at the strategic level. It is a systematic process for evaluating the environmental impacts of a proposed policy, plan or program (or sector) in order to ensure that environmental consequences of development are addressed at the earliest appropriate stage of decision-making. Although very few countries have enacted strategic environmental assessment as a legal instrument, there is an urgency to mainstream such assessment in environmental planning through other enabling mechanisms of governance processes, policy initiatives and voluntary practices. This approach is also relevant in the context of protected areas being embedded in connectivity conservation areas as well as being integrated into wider landscapes and seascapes.

Managing direct threats

Most management effectiveness assessments of protected areas evaluate, to a certain extent, the types and level of threats to protected area values and management. In a comprehensive study of management effectiveness evaluation in protected areas, Leverington et al. provided a global picture of threats from 227 protected area management effectiveness reports covering 125 countries and 6125 individual protected area assessments. Adapting the threat classification developed by the IUCN

and the CMP, the research identified the most common threats. In most regions, the most commonly reported threats included: hunting, killing and collecting animals; logging and wood harvesting; gathering non-timber forest products; recreational activities; invasive alien species; and the management of adjacent lands. In some regions such as Australia, invasive species and fire management were reported more often, while residential or commercial development emerged as the most frequent threat in Latin America. Overall, biological resource use, including illicit resource extraction, hunting and poaching, was the most common threat discussed. Wildlife crime also poses serious challenges to protected areas. Other frequently mentioned threats included mining, quarrying and oil drilling, pollution of various kinds, fragmentation caused by roads and other utility lines, severe weather and climate change.

Invasive alien species

While invasive alien species are not the only threat to protected areas, they are a serious existing and emerging threat that is often not recognised due to gaps in information on these species. While the potential threat from invasive alien species is appreciated, ‘the state of knowledge and level of management of invasive alien plants in protected areas differs considerably across the world’. Moreover, ‘many invasive plants have, or have the potential to, greatly lessen the potential of protected areas to achieve the things they were proclaimed to do—provide refugia for species, habitats and the ecosystem services that they sustain’.

Invasive species constitute an increasingly serious threat to biodiversity in marine ecosystems also but remain inadequately understood. Threats from these species need to be addressed to preserve the values and functions of protected areas and the support they provide to the livelihoods of millions of people. Economic losses from invasive species are very high and it has been estimated worldwide that the cost of damage from invasive alien species exceeds US\$1.4 trillion, amounting to 5 per cent of the global economy.

The CBD guidance on assessing and managing invasive species within protected areas provides a comprehensive overview of the strategies, methods, techniques and development of management plans for use by protected area practitioners. In addressing threats from invasive

species, the guide describes prevention, early detection and rapid response, management, control and restoration as key steps. These steps could be adapted to deal with most threats that concern protected areas.

Human–wildlife cohabitation

Human–wildlife conflict is a major challenge in many protected areas. This is particularly true in human-dominated landscapes. With a growing population in most countries and the loss of space and connectivity for wildlife, conflicts between humans or human activities and ‘nature’ are becoming more and more frequent and less and less acceptable to people. This represents an increasing problem for which new responses need to be identified. While conflicts between humans and wildlife are often quite difficult to handle, they are sometimes the basis for developing a people (community) protected area collaboration that may not only solve the issue but also enhance conservation on the ground.

Managing indirect threats

Most of the indirect threats to protected areas come from outside the reserve and as such are hardly manageable entirely by managers. These threats are sometimes similar to direct threats—such as invasive species, as they rarely appear only inside the protected area, or human–wildlife conflicts, as they most often happen at the protected area border—and they occur both inside and around the protected area. They are, however, often more global in nature, such as climate change, political instability, security issues, poor land-use planning schemes around the protected area, population growth, infrastructure development, mining or extractive activities close to a protected area, water diversion and off-site pollution. In that respect, they are usually far beyond a protected area manager’s responsibility and control. If they are linked to natural disasters, an incident management system may be instituted.

Governance dimensions of addressing threats

Managing threats is not only about what to do to address threats but also about who takes the responsibility. It invariably involves taking decisions that have far-reaching consequences for not only biophysical characteristics of

the protected area but also the lives of people associated with the protected area—in particular, local communities and indigenous peoples. It is therefore crucial to analyse the governance issues of threat management. These issues may start very early, from recognising the establishment of a protected area (who plans for and recognises it—a national authority or local community authorities or any other body) to active management of a protected area (how and by whom are the management plan, resource use rules and other permits developed and approved? How and by whom are managers appointed? Who holds authority, responsibility, power and accountability in executing plans and enforcing rules?). In any case, when dealing with threats and threat management, one must determine who or what is impacted by these threats and who is in a position to manage them. The quality of governance of the protected area (or the system of protected areas) is therefore crucial to ensure that all stakeholders will be effectively involved and able to make their contribution.

Conclusion

Underlying causes of threats are many and most of them are linked to the rapid growth in the human population on Earth. The nature of direct and indirect threats is very diverse, and planned responses and approaches to prioritisation of threat responses are needed. Management frameworks and tools that assist with assessing the scope of threats such as RAPPAM are available to assist protected area systems-level responses to threats, while project planning and adaptive management responses to specific threats may be undertaken using tools such as the CMP planning process. Supportive and effective governance is also paramount to threat management.

Finally, it is clear from the range and dynamic nature of threats to protected areas discussed in this chapter that the establishment of a reserve is just the start of its investment in conservation. Active and continuous management of protected areas is a fundamental principle for all 21st-century protected area managers. Like running a farm, managing a protected area is a seven-day-a-week, 24-hours-a-day operation that needs to constantly respond to a range of issues and threats—many that are old and recurring and many that are new and potentially insidious. This chapter provides guidance for responding to this formidable responsibility. • [To read the full chapter, click here.](#)

Announcements

PANORAMA

SOLUTIONS FOR A HEALTHY PLANET

Ntakata Mountains Project – A natural climate solution financed by the voluntary carbon market that benefits both people and biodiversity.

The Ntakata Mountains Project is a natural climate solution that protects 216, 944ha of threatened, community owned forests. Using the REDD (Reduced Emissions from Deforestation and forest Degradation) monitoring framework and methodology for carbon accounting, eight forest communities keep 1,200,000 trees standing, avoiding 550,000 tonnes of CO2 emissions annually. The resulting carbon credits are certified by VERRA's VCS and CCBA standard and sold on the international voluntary carbon market earning the communities US\$581,650 since the project's first issuance of credits in 2020. Securing indigenously managed forests is critical to climate mitigation and biodiversity conservation efforts.



Village Game Scout Patrols the forests of the Ntakata Mountains © Carbon Tanzania
For more information on Panorama, [click here](#).
To read the full solution, [click here](#).

JOB OPPORTUNITIES

Program Manager, Okapi Wildlife Reserve

Where? Epulu, Democratic Republic of Congo (DRC)

Application deadlines:

15 December 2021

>> [Click here to read more](#) <<

CONTACTS - PAPACO

geoffroy.mauvais@iucn.org	// Programme on African Protected Areas & Conservation - PAPACO
beatrice.chataigner@iucn.org	// PAPACO Programme officer - Green List
marion.langrand@papaco.org	// PAPACO Programme officer - MOOCs
youssouph.diedhiou@iucn.org	// PAPACO Programme officer – Green List and World Heritage
madeleine.coetzer@iucn.org	// PAPACO Programme officer - Communications