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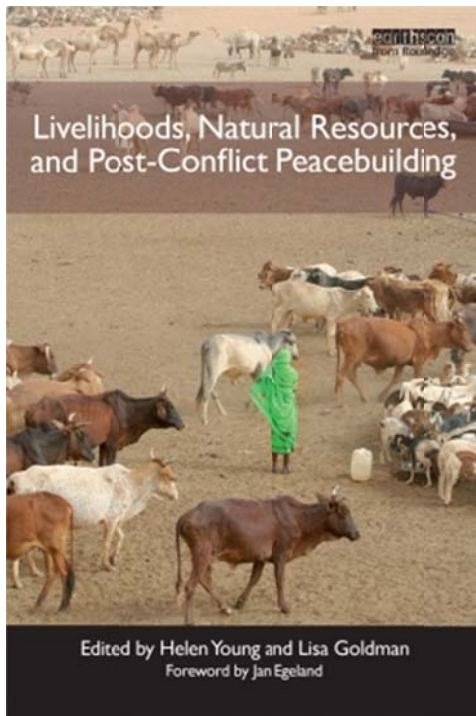
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From Soldiers to Park Rangers: Post-Conflict Natural Resource Management in Gorongosa National Park

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From soldiers to park rangers: Post-conflict natural resource management in Gorongosa National Park

Matthew F. Pritchard

The disarmament, demobilization, and reintegration (DDR) of former combatants is essential to post-war peacebuilding. During the post-conflict period, maintaining stability in the short and medium term requires programs that provide employment for combatants rendered jobless by the cessation of hostilities (Colletta, Kostner, and Wiederhofer 1996b; Colletta 1997; Goovaerts, Gasser, and Inbal 2007; Unruh and Bailey 2009). Jobs remove excombatants from the pool of post-war unemployed, facilitate social and economic reintegration, and reduce incentives for individuals to rearm and contribute to the social banditry that can emerge after conflict (Unruh and Bailey 2009). While large-scale employment programs are central to DDR, the traditional jobs designed for former combatants (such as police officers, private security personnel, and members of reformed military units) are often unable to fully absorb the overwhelming number of individuals looking for work following the end of conflict (Colletta, Kostner, and Wiederhofer 1996a; Unruh and Bailey 2009).

Despite a number of innovative alternative employment programs, there is a continued need for sustainable opportunities that pair demobilized combatants with ongoing development initiatives. With the continued need for jobs, a small body of literature has emerged that proposes hiring former combatants in natural resource management positions.¹ While extensive experience designing and implementing DDR programs demonstrates the need to tailor specific projects to the unique sociopolitical, economic, and institutional circumstances of each post-war environment, lessons from one successful effort can often be applied to others.

Specifically, the initial experience of Gorongosa National Park in Mozambique illustrates that excombatants can be effectively deployed as parks and wildlife management personnel. Given the potential for such programs to contribute

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¹ See, for example, Hatton, Couto, and Ogleshorpe (2001); Shambaugh, Ogleshorpe, and Ham (2001); Bruch et al. (2009).

216 Livelihoods, natural resources, and post-conflict peacebuilding

simultaneously to DDR and natural resource management following conflict, the United Nations has proposed similar projects for the Democratic Republic of the Congo (DRC), Sudan, and Afghanistan (Hatton, Couto, and Oglethorpe 2001; Shambaugh, Oglethorpe, and Ham 2001; Bruch et al. 2009). In an attempt to highlight the key lessons learned from this project and encourage further research on the potential role of excombatants as parks and wildlife personnel, this chapter provides a preliminary overview of the DDR program in Gorongosa National Park.

Shortly after Mozambique gained independence from Portugal in 1975, conflict erupted between the socialist government of the Liberation Front of Mozambique (Frente de Libertação de Moçambique, or FRELIMO) and the Mozambican National Resistance (Resistência Nacional Moçambicana, or RENAMO), an anticommunist movement supported by the white-minority governments of Rhodesia and South Africa (Vines 1998; Hatton, Couto, and Oglethorpe 2001; Junne and Verkoren 2005). Conflict quickly led to a civil war that lasted from 1977 to 1992. During this period, over 1 million people were killed, damage exceeded US\$20 billion, and approximately half of Mozambique's total population was displaced internally or became refugees (Hatton, Couto, and Oglethorpe 2001; Junne and Verkoren 2005).

The establishment of DDR opportunities after the civil war was critical to the peace process. In a small project that was independent of the national DDR programs run by the government of Mozambique and the United Nations, Mozambique's National Directorate of Forestry and Wildlife (Direcção Nacional de Florestas e Fauna Bravia, or DNFFB) hired a small number of former combatants as game guards, anti-poaching personnel, and informants to aid in the reopening of Gorongosa National Park (Hatton, Couto, and Oglethorpe 2001; Unruh and Bailey 2009). Although the number of employees was small and the project constituted only a preliminary attempt to pair DDR with natural resource management, its success demonstrates that employing excombatants can not only mobilize skilled and experienced individuals to reoccupy and manage national parks, but also make a modest but sustainable contribution to the overall DDR process.

While each DDR program must take into account the specific sociopolitical, economic, and institutional dynamics of the particular post-war situation, past experience suggests that former combatants can make an effective contribution to parks and wildlife services once the rehabilitation of protected areas becomes a priority.² Beyond generating employment for potential spoilers of the peace process, incorporating excombatants into natural resource management offers a unique opportunity to promote community integration while contributing to post-conflict development.

² This chapter assumes that protected areas will eventually be reopened independent of who is employed as parks and wildlife management personnel. As such, it remains focused on how former combatants can be integrated once priorities for natural resource management are established. Discussion of when and how this should occur is beyond the scope of this chapter.



This chapter begins with a brief discussion of the impacts armed conflict has on available natural resources. It proceeds with a historical overview of Gorongosa National Park during Mozambique’s civil war, and follows with a preliminary analysis of how and why former combatants were hired as resource management personnel. The chapter then reviews the contextual factors specific to post-conflict Mozambique that helped make the project successful. Finally, the chapter concludes with recommendations for further research and a summary of lessons learned from the Gorongosa National Park project that should be considered when contemplating and designing similar projects in other post-conflict environments.

WAR AND NATURAL RESOURCES

Armed conflict and the initial post-conflict period can have devastating effects on natural resources (Hatton, Couto, and Oglethorpe 2001; Shambaugh, Oglethorpe,

218 Livelihoods, natural resources, and post-conflict peacebuilding

and Ham 2001; Schafer and Bell 2002; Dudley et al. 2002; McNeely 2003). Beyond the physical destruction of crops, forests, and protected areas, armed conflicts destabilize local livelihoods and undermine established modes of production by displacing large numbers of people and forcing them to adopt shorter-term coping strategies that often involve uncontrolled resource extraction in the search for food and shelter (Dudley et al. 2002; Unruh and Bailey 2009). As conflict disrupts agricultural production and the delivery of essential services, communities are pressed to find alternative ways to meet basic needs (UNEP and IUCN 2007). Large populations of soldiers and displaced civilians rely on wild game, fruits, and vegetables for their subsistence (Dudley et al. 2003; McNeely 2003; UNEP and IUCN 2007). As internally displaced persons and refugees flee conflict-affected areas, they are often forced onto private landholdings and protected areas, where the demand for food and shelter places extreme pressure on available resources.

Although the majority of natural resources extracted by displaced populations during times of conflict are for subsistence, increasing demand for food, as well as the collapse of regional markets, transportation infrastructure, and commodity chains, combined with a lack of government oversight, can create extensive demand for wild game and illegally harvested goods (Hatton, Couto, and Oglethorpe 2001; Dudley et al. 2002; Austin and Bruch 2003). Furthermore, the scale of uncontrolled natural resource extraction brought on by armed conflict does not end with the cessation of hostilities. Rather, ceasefires, peace agreements, and post-war stability enable large populations to move throughout the country and settle in areas where access and resource extraction were previously restricted by government or rebel forces (McNeely 2003).

Understandably, the immediate priority of post-war governments and international organizations is to reestablish order and maintain stability. As such, management of natural resources and protected areas is often nonexistent or weakened by lack of staff and funding. Although addressing uncontrolled resource extraction is often not a high priority immediately after a conflict, such extraction can cause dramatic reductions in biodiversity, exacerbate existing scarcities, and present a significant threat to local livelihoods in the short, medium, and long term (UNEP and IUCN 2007). Improving the capacity to manage natural resources during and after a conflict is therefore increasingly recognized as a critical element of peacebuilding and livelihoods sustainability for the most vulnerable groups (Bruch et al. 2009).

GORONGOSA NATIONAL PARK

Located in Sofala Province in central Mozambique, Gorongosa was designated as a national park by Portuguese colonial authorities in 1960 (Hatton, Couto, and Oglethorpe 2001). Situated in the southernmost section of the Great African Rift Valley, the park's 5,370 square kilometers of wetland and savannah habitats once supported one of Africa's highest concentrations of large mammals (Hanes

2007). Gorongosa National Park became a world-renowned destination for safari tourism until its development was halted by civil war.

In 1982, DNFFB headquarters at Gorongosa National Park were captured by RENAMO forces. While fighting and displacement precipitated widespread hunting and foraging by combatants and civilians throughout the country, resource extraction in the park was especially severe, as troops were stationed there for long periods of time with relatively little action. From 1982 until the end of the civil war in 1992, Gorongosa National Park was almost continually occupied by government, RENAMO, or South African forces. In addition to large-scale hunting for food and game trophies, park infrastructure was destroyed, and both FRELIMO and RENAMO laid landmines throughout the park (Hatton, Couto, and Oglethorpe 2001).

After fifteen years of conflict, civil war in Mozambique ended on October 4, 1992, when FRELIMO and RENAMO ratified the Rome General Peace Accords. Under the agreement, all combatants were to relocate to predetermined demobilization zones, where they could be disarmed, monitored, and prepared for reinsertion and reintegration into the civilian population. As RENAMO forces withdrew from the park, a large number of internally displaced persons settled inside its boundaries, including in areas that had been inaccessible during the fighting. As a result, resource extraction in the park increased significantly after the civil war. In addition to hunting and foraging for food, people lit fires on the land in and around the park to clear it for agriculture. Hunters mainly targeted small animals for subsistence consumption, as larger game had already been wiped out, and a significant portion of the other resources extracted were for commercial purposes (Hatton, Couto, and Oglethorpe 2001).

Markets in wild game flourished throughout Mozambique. By mid-1994, two years after the official end of the civil war, observers from the International Union for Conservation of Nature (IUCN) estimated that thirty to sixty tons of carcasses were being removed from the park each month (DNFFB 1994; Hatton, Couto, and Oglethorpe 2001). As infrastructure improved throughout the country and landmines were removed from the roads leading to the park, hunters were able to travel greater distances to reach Gorongosa and venture further into the park to extract resources (Hatton, Couto, and Oglethorpe 2001).

As Gorongosa National Park was almost continually occupied by military forces throughout the conflict, researchers were unable to gather data on wildlife until 1992 (Hatton, Couto, and Oglethorpe 2001), by which time Gorongosa's human and natural resources had been decimated. The park suffered massive declines in large-mammal populations, most notably among elephants, buffalo, hippopotami, and wildebeests (table 1). In addition to wiping out the overwhelming majority of megafauna, the civil war also severely reduced the staff available to supervise and maintain all of the parks and protected areas in Mozambique. Of the twenty-eight individuals trained as resource management personnel at Gorongosa's Wildlife Training School (the country's only park management program) before the civil war, only sixteen remained in 1992 to help rebuild

220 Livelihoods, natural resources, and post-conflict peacebuilding

Table 1. Large-mammal populations in Gorongosa National Park before and after Mozambique's civil war

	1968	1970	1979	1993	1994
Elephant	2,200	1,900	3,000	4	108
Buffalo	14,000	11,900	18,000	0	0
Hippopotamus	3,000	3,200	4,800	0	0
Wildebeest	5,500	4,900	1,900	7	0
Waterbuck	3,500	2,500	800	200	129
Zebra	3,000	N/D	N/D	7	65
Eland	500	N/D	N/D	0	0
Sable	N/D	N/D	N/D	700	12
Hartebeest	800	N/D	N/D	0	156

Source: Hatton, Couto, and Oglethorpe 2001.

Note: N/D = No data.

Mozambique's entire system of parks, protected areas, and reserves (Hatton, Couto, and Oglethorpe 2001; Shambaugh, Oglethorpe, and Ham 2001).

FORMER COMBATANTS AS GAME GUARDS

Presented with a large number of former combatants, severe declines in animal populations, and the uncontrolled extraction of natural resources from Gorongosa National Park, the DNFFB's priority was to quickly mobilize skilled individuals to reoccupy the park (Hatton, Couto, and Oglethorpe 2001). Reintegrating a modest number of former soldiers and guerrillas was a secondary goal. In other words, the purpose of designating excombatants as game guards in Gorongosa National Park was not to generate large-scale employment opportunities for FRELIMO and RENAMO soldiers. Rather, this project provided a unique opportunity to mobilize highly trained individuals capable of reoccupying the park and monitoring resource extraction while providing stable jobs for a relatively small number of potential spoilers. Given this goal, the following analysis describes the impact that hiring former combatants had on the reopening of the park, as well as the relevance of this DDR project to the specific priorities and challenges of post-war Mozambique.

Despite a severe lack of trained staff, equipment, and support, the DNFFB's first priority following the civil war was to secure and rehabilitate existing park areas in Mozambique (Hatton, Couto, and Oglethorpe 2001). Given the lack of human capital and pressing need to stem the uncontrolled extraction of park resources, in 1994 the DNFFB hired seventy-six former combatants to work as game guards, scouts, and informants in Gorongosa National Park (Hatton, Couto, and Oglethorpe 2001). While these individuals lacked formal conservation training, many of the skills they had developed during combat were highly relevant to the tasks of surveying park resources and controlling poaching. Most importantly, former combatants were able to track animals and poachers within the park, remain self-sufficient in the bush for extended periods, and handle small

firearms if required for protection against wildlife and poachers (Hatton, Couto, and Oglethorpe 2001; Unruh and Bailey 2009). Furthermore, as the park had been almost continually occupied by military forces throughout the civil war, many excombatants had firsthand knowledge of the locations of both landmines and wildlife within the park (Hatton, Couto, and Oglethorpe 2001).

In addition to hiring former combatants, the DNFFB also recruited game guards from communities surrounding Gorongosa National Park. Recruits received preliminary training and were organized into scouting teams. Each team was composed of a ranger with pre-war experience, local community members, and individuals from both FRELIMO and RENAMO, in an attempt to support reconciliation and avoid conflict between teams (Hatton, Couto, and Oglethorpe 2001; Unruh and Bailey 2009). Once the teams were ready, the DNFFB entered the park in April 1995 and reestablished the park base at Chitengo. From this camp, located in the southern portion of the park, scouting teams moved through the park along old management roads, setting up temporary camps as they went (Hatton, Couto, and Oglethorpe 2001). By gradually expanding patrol areas out from the camps, these newly formed scouting groups reoccupied the entire park. After eighteen months, the park was under regular management (Hatton, Couto, and Oglethorpe 2001; Unruh and Bailey 2009). Poaching and illegal harvesting were dramatically reduced, and while still low, animal populations stabilized and slowly began to recover (Hatton, Couto, and Oglethorpe 2001).

Although the number of excombatants hired by the DNFFB remained relatively low (compared to the total number of soldiers that required reintegration), hiring these individuals as game guards allowed park services to quickly reestablish a presence, reassert park boundaries, patrol the park, and stabilize the remaining animal populations. While poaching and illegal land clearings continued, occurrences of such activities were dramatically reduced, and wildlife officials were able to initiate one of the largest animal reintroduction programs in history (Hanes 2007). Beyond reoccupying and reasserting park boundaries, the project also provided stable employment for former combatants. While it only served a small number of individuals—seventy-six former combatants out of the 100,000 who needed reintegration—the project demonstrated that former combatants could effectively contribute to natural resource management with very little conflict. Beyond initial squabbling within and between scouting groups, no conflict was reported between excombatants from FRELIMO and RENAMO, or between excombatants and local community members (Hatton, Couto, and Oglethorpe 2001). There were also no reports of the newly appointed game guards using their positions to illegally extract the resources under their protection.

Beyond the basic impacts of reestablishing park boundaries, decreasing poaching, and making a small contribution to the reintegration of former combatants, the project also demonstrated the potential of pairing DDR with other post-war development initiatives. Extensive experience designing and implementing DDR programs in a number of post-war environments has demonstrated the

222 Livelihoods, natural resources, and post-conflict peacebuilding

importance of coordinating reintegration with other development priorities, as well as the need for extensive community sensitization (Colletta 1997; UNOSAA 2007). Linking DDR with natural resource management in Gorongosa National Park provided a unique method of targeting both of these goals.

While the original objective of hiring excombatants in Gorongosa was to quickly reestablish control of the park, the project actively engaged individuals in the surrounding communities whose livelihoods depended on the extraction of park resources. Prior to reoccupying Gorongosa National Park, the DNFFB contacted district and provincial administrators, local chiefs, and members of the FRELIMO and RENAMO political parties throughout the area surrounding the park, to discuss the project's goals and to mobilize local support (Hatton, Couto, and Oglethorpe 2001). In addition to building consensus among the groups most affected by the reassertion of park boundaries, project officials invited local communities to play an active role in reopening and monitoring Gorongosa National Park. First, after landmines were cleared, people living in and around the park participated in food-for-work projects to rebuild park infrastructure (Hatton, Couto, and Oglethorpe 2001). Second, in exchange for providing information on illicit activity within the park, and for not hunting or clearing land, local communities were allowed to harvest honey, fish, plant materials for construction, and a number of other goods from within the park (Hatton, Couto, and Oglethorpe 2001). By engaging the communities that rely on park resources for subsistence in the short term post-war period, park personnel established a positive relationship with local residents and helped reduce resistance to the reopening of Gorongosa National Park. Finally, in addition to helping rebuild infrastructure and shifting to more sustainable harvesting, as previously mentioned, local residents were hired, trained, and deployed alongside former combatants as game guards (Hatton, Couto, and Oglethorpe 2001; Shambaugh, Oglethorpe, and Ham 2001; Unruh and Bailey 2009).

Involving local inhabitants in reopening the park helped garner support for the project and allowed the DNFFB to reestablish park boundaries and decrease illegal resource extraction without alienating local inhabitants. Interaction between local residents and former combatants not only decreased the chance that the DNFFB would be seen as privileging the perpetrators of the conflict, but also actively encouraged the mutual reintegration of former combatants and local community members.

In addition to facilitating reintegration, jobs in Gorongosa National Park have proven to be more sustainable than some of the other opportunities offered through national DDR programs, if sustainability is measured by employment opportunities beyond the immediate post-war period as well as by the potential for promotion within the institution. Unlike a number of jobs designed for excombatants in Mozambique, those working for Gorongosa National Park retained their positions beyond the short-term post-war period. Indeed, all seventy-six former combatants initially hired by the DNFFB in 1994 were still working in the park in 1997. Unlike opportunities created for the sole purpose of reintegration of

former combatants, the jobs in Gorongosa National Park filled an existing need for personnel.³

Beyond the initial need for human capital to reenter and reestablish Gorongosa National Park following the civil war, the continued employment of excombatants as game guards was indirectly supported by the park system's severe lack of training capacity. Fifteen years of conflict had not only reduced the number of experienced personnel available to supervise Mozambique's entire system of protected areas but also destroyed the institutions established to train resource management personnel. Mozambique's only parks and wildlife management training program, Gorongosa's Wildlife Training School, relocated to Maputo in 1981 and later shut down altogether (Hatton, Couto, and Oglethorpe 2001; UNOSAA 2007). Without the ability to educate and deploy new recruits, by the end of the conflict in 1992, there was a complete absence of trained personnel capable of establishing and monitoring the park, with the DNFFB lacking the institutional capacity to train future employees. While this presented a serious challenge to the park system, it offered early post-war employees significant opportunities for upward mobility.

The long-term sustainability of the Gorongosa National Park initiative was enhanced by national policies that emphasized natural resource protection. The opening page of Mozambique's 1997 Law on the Environment emphasized the importance of the relationship between a protected environment and "the socio-economic and cultural development of communities and the preservation of the natural resources that sustain them." Furthermore, the success of pairing DDR with park management in Gorongosa prompted an agreement between the ministries of tourism and defense on "the permanent multiple use of former soldiers in policing the nation's national parks" (Unruh and Bailey 2009, 165). Programs that employ excombatants to reestablish protected areas need not, therefore, be restricted to immediate post-conflict situations, but can be an important source of trained and disciplined personnel in the long term.

Finally, the successful deployment of excombatants in Gorongosa National Park highlights the project's relevance to the unique obstacles of post-war environments. Given the relatively small number of employees and minimal training they required, the DNFFB was able to proceed without extensive policy prescriptions or government mandates. The small scale of the project fostered centralized decision making within the DNFFB and avoided the challenges of working with a large number of participants spread throughout the country in protected areas and multiple communities disparately affected by the conflict.

³ The difference between an existing and a created need for personnel can be seen clearly in the contrast between the Gorongosa experience and that of the Operational Skills Development program, one of the least successful DDR programs in Mozambique, which offered two-month training courses in forty-nine different fields, aimed at graduating skilled and semiskilled workers. Implemented by the International Labour Organization, this program was developed with very little regard to target beneficiaries (Alden 2002). For example, many former combatants were trained as electricians in communities with no electricity.

224 Livelihoods, natural resources, and post-conflict peacebuilding

After an armed conflict, there is often a strong need—and opportunity—for large-scale reform. However, there are also often overwhelming obstacles that can delay, if not completely halt, the development and implementation of government programs. The small scale of the Gorongosa project enabled the DNFFB to peacefully mobilize local community members and former combatants without the need for extensive government debate or new legislation. Support for a national DDR program independent of projects designed and implemented by the international community would have been difficult to garner in 1994, when the government of Mozambique was focused on organizing the first elections since 1975. While the country has since legislated a number of initiatives regarding the protection of parks and the continued employment of former combatants, the success of excombatants as game guards in Gorongosa National Park stemmed directly from its regional specificity and independence from national and international development initiatives.

FACTORS AFFECTING SUCCESS AND POTENTIAL CONSTRAINTS

Going beyond the valuable contributions excombatants have made to securing and reopening Gorongosa National Park, it is important to understand the contextual factors unique to post-war Mozambique that influenced the successful implementation of this project. When thinking of ways to expand on this experience and apply it in other protected areas and post-conflict environments, it is important to acknowledge that several factors particular to post-war Mozambique and Gorongosa National Park contributed to the project's success. Specifically, the successful contribution of former combatants to the reopening of Gorongosa National Park was supported by the nature of both the conflict and ensuing peace in Mozambique, the unprecedented national and international support for DDR programs, the hiring of excombatants who were already settled in local communities, the extensive informal community reconciliation ceremonies, the ability of game guards to begin their work without weapons, and the project's independence from the national DDR framework. After outlining each of these factors, this section concludes with an overview of two key challenges that should be addressed when considering programs that pair excombatants with parks and wildlife management across other post-war environments.

First, the nature of the civil war and ensuing peace in Mozambique supported the successful employment of excombatants as parks and wildlife management personnel. By the time peace talks were initiated in 1990, combatants on both sides not only had become dissociated from the ideological roots of the civil war, but also felt that the respective goals that provoked the conflict were unattainable (Junne and Verkoren 2005). Initially driven by political rather than ethnic factors, by the late 1980s a new group of leaders within RENAMO saw the conflict as unwinnable and began the transition toward peace (Junne and Verkoren 2005). Conflict fatigue in Mozambique was so prevalent that of the 100,000 combatants eligible under the peace agreement to join the new army,

only 12,000 volunteered (Junne and Verkoren 2005). Soldiers were so skeptical that anything could be gained by continuing the conflict that they became “willing partners in their own demobilization” and overwhelmingly supported national DDR programs (McMullin 2004, 635).

In addition to extensive conflict fatigue, Mozambique also experienced unparalleled financial backing from the international community for the most comprehensive set of DDR programs to date (McMullin 2004). The need for extensive funding was underlined by the breakdown of peace in Angola, which prompted the United Nations Mission to Mozambique to mobilize US\$95 million in donor funding for an extensive series of DDR programs (Alden 2002; McMullin 2004). Most of these funds were dedicated to the Reintegration Support Scheme, a program that transported demobilized soldiers anywhere in the country and provided a fixed salary for two years (Junne and Verkoren 2005; Alden 2002; McMullin 2004), with monthly payments based on their previously held rank that could be collected by presenting a voucher at any branch of the nationwide People’s Development Bank (Banco Popular de Desenvolvimento) (Alden 2002).⁴ Payments were designed to support former combatants and their families as they returned home or looked for work, and helped ensure that excombatants were not seen as burdens to their new communities (Alden 2002; McMullin 2004; Junne and Verkoren 2005). Not only did this program distribute former combatants throughout the country, but it also supported them as they (re)established social networks in local communities.

As a direct result of the support provided by the Reintegration Support Scheme, the overwhelming majority of excombatants recruited by the DNFFB for Gorongosa National Park in 1994 were already settled and integrated into local communities. As such, when hired by the DNFFB, former combatants were not as likely to be seen as complete outsiders, but rather as new or returned community members with significant familial and economic ties to the area. The two-year lag period between the end of the civil war and initiation of the Gorongosa program significantly reduced the number of obstacles faced by the DNFFB when training and supervising excombatants and local community members.

The successful introduction of former combatants as game guards in the park was also indirectly supported by informal community reconciliation ceremonies (Igreja 2007; Lundin 1998). Like most peace treaties, the Rome accords granted combatants unconditional amnesty. While such agreements are essential to long-term peace, they are often difficult to accept for noncombatants who suffered during the conflict and who must interact with people they see as responsible for that suffering. Reintegration of former combatants not only helps pacify soldiers but also supports local community members who are forced to interact

⁴ In addition to the Reintegration Support Scheme, DDR initiatives in Mozambique included the Operational Skills Development program, described in footnote 3, and a program of the German Society for Technical Cooperation (Gesellschaft für Technische Zusammenarbeit), which provided US\$1,000 to US\$5,000 for business enterprises that involved former combatants (Alden 2002).

226 Livelihoods, natural resources, and post-conflict peacebuilding

with those individuals on a daily basis. In Mozambique, informal reconciliation ceremonies helped to make this step palatable. While their specifics differed from one region to the next, the ceremonies generally had three aspects in common: (1) they were designed to help former soldiers overcome their aggressive identities; (2) the community gathered to give thanks for the safe return of the excombatants; and (3) the excombatants were invited to reconcile with the spirits of the dead by asking forgiveness, demonstrating remorse, and making remunerations to family members of the dead. While these ceremonies were not a part of the formal DDR programs, they were an important method of supporting reintegration and reconciliation in many places across Mozambique (Igreja 2007).

The lack of large mammals in Gorongosa National Park following the civil war, along with restrictions on firearms (for poachers and game guards), meant that park and wildlife management personnel were initially able to reoccupy and patrol the park unarmed. This provided the DNFFB with an opportunity to present a more people-friendly approach to scouting without endangering the lives of park employees (Hatton, Couto, and Oglethorpe 2001; Unruh and Bailey 2009). As Mozambique transitioned through the post-war period and the park was gradually repopulated with large mammals, guns slowly became available, and special scouting units within the park received light arms (Hatton, Couto, and Oglethorpe 2001).

Finally, another key component of the successful employment of excombatants as parks and wildlife management personnel in Gorongosa was the speed with which the DNFFB was able to hire employees and reestablish control of the park. Although the new game guards and scouts were not deployed until 1995, once occupied, the park was under regular management within eighteen months. While this may not seem especially quick, it is a relatively short time given the size of the park and the extent of the damage caused during the civil war (Unruh and Bailey 2009). The speed with which the DNFFB was able to transition from initial consultations with surrounding communities to the deployment of game guards was largely due to the project's independence from the national DDR framework, the relatively small number of employees involved, and the independent funding that left decision making in the hands of park authorities. Operating outside the national decision-making framework significantly reduced the institutional lag time that often characterizes new projects.

In addition to the contextual factors that promoted the successful deployment of excombatants as parks and wildlife management personnel, it is also important to acknowledge existing and potential constraints that hinder the implementation of similar programs in other protected areas and post-war contexts. These include (but are not limited to) the need to tailor DDR efforts to widely varying post-conflict situations and the difficulties that can arise in managing excombatants and their relations with local civilians.

- First, to be successful, DDR programs must be adapted to local contexts, be adjusted to existing opportunity structures, and must incorporate the needs of excombatants and their families (Colletta 1997; UNOSAA 2007). The

importance of adjusting reintegration programs to meet the divergent needs of former soldiers within and between countries makes it difficult to make general prescriptions about how to design a successful DDR initiative (UNOSAA 2007). However, while programs should be developed in line with specific post-war environments, the need for contextual relevance does not undermine the general opportunities presented by pairing excombatants with parks and wildlife management. Although project design, implementation, and evolution will differ between locations, the general goals of providing stable employment and reducing the uncontrolled extraction of natural resources remain the same.

- The second major constraint to employing former combatants as parks and wildlife management personnel is the fact that these individuals can be difficult to manage and can easily alienate local communities. When former combatants are placed in positions of power, local residents may view them as providing a key public service, but they may also see excombatants as further harming the community by limiting access to park resources (Colletta 1997). Concerns are especially likely to arise where civilians blame excombatants for the conflict and the hardships they experienced during the conflict. Experience from Gorongosa National Park demonstrates that this difficulty can be overcome when surrounding communities are sensitized and actively included in natural resource management. Furthermore, the challenges of managing former combatants are not new. Indeed, the most common jobs offered to excombatants have been as members of police forces, private security teams, and reformed military units (Colletta 1997; Colletta, Kostner, and Wiederhofer 1996a; Unruh and Bailey 2009). As such, the challenges of hiring and managing excombatants in positions of power have been addressed through extensive experience in a number of post-conflict situations, and are not restricted to employment as natural resource management personnel.

When considering these and other challenges associated with employing excombatants in parks and wildlife management, it is important to focus on the unique sociopolitical and economic frameworks that are particular to post-war environments, rather than measuring the challenges against an idealized peaceful situation. The potential risks of hiring excombatants should be weighed not only against the contribution these individuals can make but also against the problems that can arise if they are not offered stable employment and actively included in development priorities (Unruh and Bailey 2009).

LESSONS LEARNED

In light of the key factors and constraints faced when employing former combatants as game guards, this final section provides an overview of the initial lessons learned from the project at Gorongosa National Park. These lessons are discussed in terms of the general opportunities for connection between DDR and

228 Livelihoods, natural resources, and post-conflict peacebuilding

natural resources management, and the influence of factors that are specific to Mozambique's experience.

The main lesson drawn from this initial overview is that former combatants can play an important role as parks and wildlife management personnel in post-war environments in a way that minimizes the possibility of future conflict, supports community reintegration, and helps provide the human capital required to reassert control over protected areas. Integrating former combatants into parks and wildlife management can lead to a relatively quick mobilization of personnel while making a modest (in terms of the number of individuals employed) but sustainable contribution to DDR. Furthermore, pairing DDR with parks and wildlife management can help transform excombatants from potential spoilers into active participants in local and national development priorities, while stabilizing natural resource use for local livelihoods beyond the short term.

Beyond the general contributions former combatants can make to natural resource management, this chapter also presents several key ideas to consider when evaluating, designing, and implementing similar initiatives in other post-conflict situations. First, it demonstrates that hiring former combatants will be more effective if initial DDR has already occurred. While any lag in program implementation will likely increase the amount of damage to protected areas, it also allows government agencies to establish conservation priorities, determine institutional capability, and reach out to local communities involved in or affected by resource extraction. Any initial delay also provides time for local residents to transition away from short-term post-war coping strategies—specifically, to reestablish housing and market infrastructure—and therefore reduce their dependence on illegally extracted goods. After excombatants have experienced initial reintegration, it is easier to train and supervise them; local residents are less likely to view the DDR program as privileging the perpetrators of the conflict.

Second, the Gorongosa experience demonstrates the importance of actively involving local communities in reestablishing and maintaining conservation areas. Engaging local residents and acknowledging the significance of natural resources to subsistence livelihoods can increase support for conservation projects while adding to the human capital needed to monitor protected areas. In Gorongosa National Park, local community members helped reassert park boundaries in a number of ways. While the methods for engaging communities will differ from one post-conflict situation to the next, it remains an essential component of hiring and managing former combatants, reducing resource extraction, and supporting local livelihoods.

Third, in areas without large animals or violent poachers, patrolling reestablished boundaries without weapons presents a more community-friendly image without endangering park employees. Although experience from Gorongosa National Park demonstrates the benefit of not arming game guards when they are first deployed, the decision of whether to supply weapons depends heavily on the nature of the conflict and ensuing peace, local perceptions of former

combatants, and the need for firearms to protect employees from wildlife and poachers.

Finally, independent funding can play a critical role in supporting natural resource-based DDR programs. Many donors fear that without guaranteed salaries and strong institutional capacity, former combatants employed in parks and wildlife management could exploit the resources under their protection for their own benefit (Bruch et al. 2009). However, this risk is not restricted to former combatants. Providing stable and competitive salaries can reduce incentives for illegal resource extraction and encourage new employees to remain in the program, thus supporting their continued reintegration into surrounding communities. Experience from Gorongosa National Park demonstrates the benefit of providing staff salaries through funding that is independent of the national DDR framework, as this can be more reliable and facilitate more effective decision making by project managers as well as streamlined implementation. The Gorongosa project's independence from the national DDR framework was essential to its flexibility and capacity to guarantee continued support for excombatants and local community members.

CONCLUSION

The DDR of former combatants is essential to establishing and maintaining peace in post-conflict situations. Despite extensive efforts to design and implement DDR programs, the traditional jobs available for excombatants after a war are never able to fully absorb the number of individuals that need work (Colletta, Kostner, and Wiederhofer 1996a; Unruh and Bailey 2009). By drawing on a small but growing body of literature on the importance of natural resources to medium- and long-term recovery in post-conflict countries,⁵ DDR programs can further respond to the continued need to provide excombatants with jobs through opportunities created in natural resource management. Where natural resources are essential to reestablishing and maintaining livelihoods damaged during conflict, DDR programs relying on natural resource management can help provide gainful employment for potential spoilers while improving natural resource protection.

In Mozambique, the DDR of former combatants was critical to the peace process. What the individuals hired by the DNFFB lacked in formal conservation training, they made up for with skills invaluable to reducing poaching and other forms of uncontrolled resource extraction. Experience from this project demonstrates that employing former combatants as parks and wildlife management personnel can contribute to a relatively quick mobilization of the human capital needed to reoccupy and supervise protected areas, while making a modest but sustainable contribution to DDR of excombatants and community reintegration. Although specific aspects of project design and implementation differ from one situation to the next, similar initiatives in other post-conflict environments can

⁵ See, for example, Bruch et al. (2009); Takasu (2008); Unruh and Bailey (2009).

230 Livelihoods, natural resources, and post-conflict peacebuilding

provide stable employment for excombatants while decreasing the illegal exploitation of natural resources and promoting long-term livelihoods.

Given the preliminary nature of this work, the central goal of this chapter has been to demonstrate the opportunities and challenges encountered when employing excombatants as parks and wildlife management personnel, and to initiate a discussion on the potential for designing and implementing similar projects in other post-conflict situations. An overview and analysis of experiences from Gorongosa National Park demonstrates that more research is needed on the role former combatants can play in parks and wildlife management. Most importantly, further research is needed on how DDR programs can promote stable relations between excombatants from opposing sides, as well as between former combatants and local civilians, particularly when the excombatants must enforce park rules and the local civilians have come to depend on park resources for their livelihoods. However, this is less a question of who is patrolling the park and more about the balance between short-term extralegal extraction and long-term development opportunities, as well as the intrinsic importance of environmental protection to sustainable livelihoods.

Finally, further research is needed on the sustainability and scalability of programs that involve excombatants in parks and wildlife management over the short, medium, and long term in different post-conflict situations. Incorporating excombatants into parks and wildlife management presents significant challenges and opportunities for post-war development. Given the need for sustainable jobs for potential spoilers and the importance of natural resources to livelihoods stability, employing excombatants as parks and wildlife personnel presents an important opportunity to pair development priorities and facilitate specific aspects of post-conflict peacebuilding.

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