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Article

Exploring the Relationship Between Local Support and the Success of Protected Areas

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Abstract

The idea that the support of local people is essential for the success of protected areas is widespread in conservation, underpinning various conservation paradigms and policies, yet it has rarely been critically examined. This paper explores the circumstances which determine whether or not local opposition to protected areas can cause them to fail. It focuses on the power relations between protected areas and local communities, and how easily they can influence one another. We present a case study from the Dominican Republic, where despite two decades of resentment with protected policies, local people are unable to significantly challenge them because of fears of violence from guards, inability to reach important political arenas, social ties with guards, and the inability to coordinate action. It concludes by arguing that there are often substantial barriers that prevent local people from challenging unpopular conservation policies, and that local support is not necessarily essential for conservation.

Keywords: local support, protected area, reserve, resistance, opposition, conservation, social impact, Dominican Republic, Caribbean

INTRODUCTION

Issues of the relationship between protected areas and local communities are of vital importance to biodiversity conservation. A better understanding of how they interact, influence, and shape one another allows us to improve our ability to conserve the areas' biodiversity while maximising benefits, or at least minimising costs, to the populations living in and around protected areas, who are often amongst the most marginalised groups in society. This paper refers to one particular debate within this broad arena, the question of whether the support and consent of local populations are essential prerequisites for the success of protected areas, which Brockington (2004) refers to as "the principle of local support". This notion states that if individual protected areas are to have any long term continuity as institutions, and if they are to be effective in preserving the biodiversity contained within them, then local people must support them. Discontented local people will resist protected area regulations, protest against them, refuse to cooperate with authorities and participate in their plans. This will consequently undermine both the institution of a protected area and the health of the biodiversity contained within it. The principle has an interesting position in conservation strategy, discourse, and practice. As Brockington (2004) notes, it is strongly expressed in keynote speeches and declarations at major conservation meetings. David Western (2001: 202), an influential conservationist and former director of the Kenya Wildlife Service argues that "a fallacy of protectionism is that we can ignore the costs locally". The president of the IUCN's opening speech to the fourth World Parks Congress stated that "quite simply, if local people do not support protected areas, then protected areas cannot last" (Ramphal 1993: 56). Adrian Phillips argues that "any approach that marginalises the local community in decision-making is doomed to failure", and that there is an "iron rule that no protected area can succeed for long in the teeth of local opposition" (Borrini-Feyerabend et al. 2002—quotes taken from Brockington 2004). It forms the basis of many strategies that aim to raise support for protected areas amongst local people as a path to conserving biodiversity, and is taken as a relatively unproblematic truth

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in papers in conservation journals (e.g., Berkes 2004; Bulte and Rondeau 2005). It is implicit in the thinking of donors funding conservation and NGOs, and in the declarations emerging from the last World Parks Congress held in Durban in 2003 on what makes conservation successful and what strategies should be taken in the following decade. In particular, building support for protected areas from local communities and other constituencies was one of the seven themes of the Congress, not only out of recognition of the contribution that conservation can make to well-being and other reasons, but also because it is presumed that support makes conservation more effective. A considerable number of studies on the social relations of protected areas are primarily or solely designed to measure the attitudes of local people towards protected areas, with the implicit or explicit assumption that such attitudes have a crucial bearing on the success or otherwise of protected areas (e.g., Kideghesho et al. 2007, Triguero-Mas et al. 2009). Remarkably, given that they disagree on many other issues, it is accepted as true by advocates of community-based conservation as well as those supporting the "fences and fines" approaches, even if they differ in how they think it should be achieved[1] (e.g., Brandon et al. 1998).

While there have been studies exploring the relationship between protected areas and local people, this has not directly addressed the principle of local support, with the exception of Brockington (2002, 2003, 2004). The purpose of this paper is to critically analyse the principle, and in particular to move beyond Brockington's contribution by considering what might make it true or false. It does this by considering what is known about the power relations and interactions between protected areas and local communities. It begins by demonstrating the logic behind the principle of local support, followed by an exploration of the factors—particularly those that increase or decrease the ability of local people to influence protected area policy—which may make it true or false. The original contribution of this paper lies in this area. The arguments are then illustrated with a detailed study of the history of a protected area in the Dominican Republic, which shows not only how protected areas can survive discontent and opposition, but also the complex and surprising ways in which local people and protected areas can shape one another's behaviour.

The principle of local support and conservation policy

The principle of local support assumes that local people who are dissatisfied with conservation because of the costs and constraints it imposes on them will resist and this will cause conservation efforts to fail. Local people may become dissatisfied with protected areas because they displace them from their homes, restrict their livelihoods by limiting access to natural resources, fail to deliver promised benefits, and other reasons (West and Brockington 2006). They may chose to resist these costs through formal political opposition such as legal challenges, lobbying, and protest marches (e.g., Sullivan 2003), but more frequently through more subtle, indirect protests such as non-cooperation and sabotage (Holmes 2007). In short, the principle argues that dissatisfied local people have the power to make protected areas fail. Failure is rarely defined but is implied as an inability to protect biodiversity (particularly emblematic species) within a protected area, or the weakening or collapse of a protected area as an institution.

A well known and influential case of the principle in action comes from the Amboseli in Kenya. Here pastoralists unhappy with the constraints imposed on their livelihoods by conservation regulations took to attacking high-profile wildlife such as lions and elephants, and cooperating with poachers, thus undermining conservation efforts as the populations of these species plummeted. When strategies were changed to ensure that locals received material benefits from the park in order to earn their support, the killings diminished, the pastoralists turned on the poachers, and wildlife recovered (Western 1994). There are a number of other, similar examples of opposition undermining protected areas in the literature, although not so spectacularly as in Amboseli (e.g., Roth 2004; Norgrove and Hulme 2006). Larger scale studies and reviews provide further evidence in support of the principle. Struhsaker et al. (2005) surveyed administrators and scientists associated with 16 protected areas in African forests; they found positive attitude towards the areas among neighbouring communities to be the strongest correlate of protected area success, although there was no significant correlation between park success and presence of education and outreach programmes. However, Bruner et al. (2001), using a similar methodology in a study of 93 large, strict, tropical protected areas, found that local support did not correlate with protected area success, although there was a relationship between success and the existence of compensation schemes. It should be noted that both studies greatly rely on surveying park managers, which should not be considered an unbiased source of information. Mascia and Pailler's (2011) review of protected area degazettement, downgrading, and downsizing show a number of case studies where local discontent and opposition has led to a legal weakening of protected areas. In addition to the well known case studies and reviews, the principle may have become so widely accepted because it appears so straightforward and compelling—it appears natural that dissatisfied people will resist, and consequently conserving the resources of protected areas in the face of opposition will be impossible (Brockington 2004).

The principle has made an important contribution to a number of different policy positions on protected areas, each of which tend to take different approaches to ensure local support. It is particularly influential in the broad set of approaches known as community conservation, which often includes a strong element of devolving a proportion of the material benefits of protected areas to local communities in order to win their support, as a means of guaranteeing that conservation is successful (see cases discussed in Barrett et al.1999; Berkes 2004; Hutton et al. 2005; Buscher and Whande 2007; Hausser et al. 2009). Such benefit-sharing strategies use economic power to ensure local support, providing livelihood incentives for locals as a way of conserving biodiversity (Adams and

Hulme 2001; Brown 2002; Adams et al. 2004). Advocates of the fences and fines approach argue that protected areas should ensure local support, not through allowing them use of natural resources (a key part of the fences and fines approach is that local communities and protected areas should be spatially and economically separated), but through education programmes which inform local people of the benefits of protected areas (Brandon et al. 1998). Advocates of indigenous and community conserved areas argue that by encouraging a cultural connection between communities and protected areas, support can be maintained and successful conservation ensured (Berkes 2008). Even as these crudely differentiated paradigms have evolved, fed off one another, and seen their popularity wax and wane, the principle of local support has continued to contribute to policy.

Challenging the principle of local support

The literature emerging from anthropology, geography, and development studies in recent decades which examines in detail the politics of the relationships between protected areas and local people shows a more complex side to the principle of local support. In particular, they have looked at power, which is at the heart of the principle of local support. Power is an extremely complex issue which at its most basic is a measure of the ability of someone to do something, or to make someone else do something (Lukes 1974), such as the ability of conservationists to make local people behave in a particular way, or vice versa. The principle of local support implies that local people are powerful relative to protected areas, that they can make conservation fail should they dislike it, and that they can force a change in conservation policy.

Brockington (2004) challenges this by arguing that in fact local people are often much weaker than protected areas, that local people often cannot force a change in policy, and that conservation can thrive despite long term local opposition. His case study shows that while populations evicted from a reserve in Tanzania suffered considerable hardship as a result of protected area policy, and that resentment and opposition ensued, they simply lacked the ability to have a meaningful impact on the reserve, despite attempts at changing reserve policies, which included legal challenges. Protected areas have considerably more resources to draw on than local people when it comes to disagreements over regulation, making the views and actions of local people relatively unimportant for their success. It contrasts greatly with Western's (1994) example, even though the two sites are less than 100 km apart, and have similar ecosystems. Similar cases where conservation has succeeded despite long term opposition have been noted by Neumann (1998), Walley (2004), and others. Indeed, the oldest modern protected areas which emerged in the USA in the late nineteenth century were subject to sustained opposition from disgruntled locals (Jacoby 2001), yet these parks remain today, as does some measure of local resentment (Stern 2008). Such cases demonstrate that protected areas often have considerably more resources to draw on than local people in disagreements over regulation, making the views and actions of local people relatively unimportant for their success. Brockington (2004) concludes by arguing that the principle attributes too much power to local people. Indeed, while conservationists often see themselves as relatively weak, struggling to protect biodiversity against powerful forces of demand for resources, population growth, corruption, and international trade in endangered species, they are still often much more powerful than local people (Brosius 2006).

What is missing between Brockington (2004) and Western's (1994) accounts of the principle of local support is a sense of the circumstances under which local people may succeed or fail to shape protected area policy—what might make local people powerful or weak, relative to protected areas. The literature on the relations between protected areas and neighbouring communities illustrates some of these circumstances, which are explored below. It also illustrates three other important features. Firstly, there is a great variety of forms of power used in the relationships between local people and protected areas, a great number of ways in which they try to influence one another's behaviour. Secondly, the relationship is not static or homogenous—it is constantly changing with changing circumstances. Thirdly, just as local communities are not homogenous, there is no singular relationship between any one protected area and its neighbouring communities. Rather, there are multiple, coexisting relationships with different groups within these populations.

Perhaps the most important factor limiting local people's ability to influence protected areas is that protected areas can utilise the legitimised violence of the state, and fear of this limits what actions local people are prepared to take. Protected area guards have the ability to fine or imprison local people, they are often armed, and they can use violence to impose regulations. This formal power, shared with other agents of the state such as the police, is amplified in many cases because of the informal way it is used—the *de facto* way local people experience it is different and often more violent to the *de jure* way it is set out in statute. Stories of guards using summary violence towards local people are common (Norgrove and Hulme 2006; Robbins et al. 2007; Ogra 2008; Milgroom and Spierenburg 2008; Laudati 2010; Brondo and Bown 2011). Some countries have used a shoot-to-kill policy against suspected poachers in protected areas, even though poaching is not a capital offence. Neumann (2004: 831) has described resulting deaths as "extra-judicial executions". The memory, fear, threat or expectation of violence from protected area guards can limit the actions which local people are prepared to take, and consequently their ability to influence protected area policy (Norgrove and Hulme 2006; Almudi and Berkes 2010). Neumann (2004) argues that violence in conservation has been sustained because it is legitimised by certain dominant discourses about wildlife, poaching, and the extinction crisis. When local people can in turn use violence against protected area staff, this can be very effective in changing policy, although such high reward acts also involve high risk (Orlove 2002; Norgrove and Hulme 2006).

The second major factor is the move towards involving local people in protected areas, associated with the move towards community conservation, which has both opened up and closed down opportunities for locals to influence protected areas. Integrating local people gives them a means to influence protected areas, empowering them, particularly if they are granted management rights (Horowitz 1998; Berkes 2004; 2008, Hausser et al. 2009). However, planned or claimed devolution and decentralisation of control of protected areas to local communities often does not occur in reality, as rent seeking opportunities drives state actors and local elites to centralise control and capture resources (Blaikie 2006; Nelson and Agrawal 2008; Benjaminsen and Svarstad 2010). Where locals are granted control, they may lack the capacity to make the most out of it and to shape protected areas to their liking (Nelson and Agrawal 2008). Brown (2002) and Few (2001) illustrate cases where community involvement has been used by protected area authorities to limit local people's influence on protected areas. Here participatory processes are carefully shaped, events stage-managed, and invitees carefully selected to exclude contrary viewpoints, so that the results meet the pre-set goals of the planners, giving the illusion of local participation yet producing the "correct" results. Even well-intended decentralisation projects can end up limiting the ability of some local people to influence protected area policy—for example, an individual's ability to influence a community or indigenous conservation project depends on whether or not they are classed as a member of that community or indigenous group, which is neither straightforward nor uncontroversial.

Other cases have demonstrated the importance of government structures and active civil society in allowing local people to influence protected areas. Beazley (2009) and Karanth (2007) illustrate cases in India where local people have been able to negotiate their own terms of relocation from protected areas, ultimately receiving a net benefit from the process, because democratic structures and an active civil society campaigning for rural people's rights forced local government to take their livelihoods and concerns seriously. Kepe et al. (2001) show how the political empowerment of black people at the end of apartheid allowed locals to successfully reclaim territory from a protected area in South Africa. Neumann (1995) demonstrates that the rise of civil society organisations opened up a space for pastoralist communities in Tanzania to use democratic and formal challenges against protected areas, which were previously absent. Yet government structures and civil society do not empower all local people equally. Kabra (2009) compares two cases of relocation in India, and shows that communities who tend to be less marginalised within society in general are able to get a better deal out of relocation because they have the knowledge, resources, connections, and experiences to be able to lobby the state and influence the outcome of the process. More marginalised groups lack this, and end up worse off. In other cases, the absence of frameworks to allow community or civil society involvement in protected area management gives local people a real sense of lacking power (Rutagarama and Martin 2006; Almudi and Berkes 2010; Torri 2011). Where legal structures allow formal challenges to protected areas, local people may lack knowledge or resources to take advantage of them (Almudi and Berkes 2010). They may also lack the ability to reach the arenas, in order to lobby, where decisions on protected areas are made—Sachedina (2010) shows how the upscaling of conservation NGOs leads them to base themselves in large cities to pursue funding, with the consequence that they become metaphorically and physically distant from the rural areas in which they are supposed to work.

Other cases have highlighted the importance of having a monopoly on holding or producing knowledge. Changes in protected area policy, including in some cases the creation of protected areas, often come as a surprise to local people, limiting their ability to organise and challenge policy (Neumann 1995). Adger et al. (2005) show how the refusal of protected area authorities to share information with locals is a barrier to local people being in a position to exert influence. Uncertainty over the location of the boundaries of protected areas meant that regulations were imposed in an ad hoc fashion, limiting local people's ability to challenge them formally (Geisler et al. 1997). Local people can also exploit any uncertainty—in Geisler et al.'s example, uncertain boundaries meant that landless families tried to get themselves classified as living within the park to access anticipated compensation schemes. Norgrove and Hulme (2006) show how farmers whose land bordered a Ugandan protected area would deliberately move boundary markers to reclaim land from inside the park, although formalisation of the boundaries using GPS technology ended this. Related to knowledge, the ability to produce discourses and storylines about protected areas can open up or limit local people's influence. If a discourse that a protected areas is an empty place, and always has been, becomes dominant, then local people struggle to assert their claims to rights and resources (Neumann 1995; Sletto 2002). Where certain conservation discourses are very dominant, local people may only be able to challenge protected areas using the language and ideas of the dominant discourse, which limits what arguments they can put forward (Buergin 2003). When local people can assert their own discourse, including things like local knowledge, place names, histories, and cultural links to the land, then this can be a powerful tool in changing protected area policy (Heatherington 2001; Kepe et al. 2001; Bryant 2002).

Social links between protected area staff and local people can be empowering for locals. Robbins et al. (2007) demonstrate that a sense of obligation among protected areas staff towards the livelihoods and well-being of local people meant that they were prepared to turn a blind eye to certain infractions. Norgrove and Hulme (2006) show that personal contacts allowed a level of bargaining between locals and protected area staff about what activities would be allowed. Interestingly, Stern (2008) found that local people who had social links to protected area staff were more likely to see protected areas as legitimate, to trust the staff, and to obey regulations. The

presence or absence of social links within local communities can also be important, as a lack of cohesion can limit the ability to organise and coordinate meaningful opposition (Infield and Namara 2001; Kabra 2009).

The difficulties in mounting organised, formal opposition to protected areas, such as the fear of violence or the lack of knowledge or resources to pursue a legal route, can push local people into using "weapons of the weak" (Scott 1985) techniques such as sabotage, arson, slandering of guards, and non-cooperation—which avoid direct confrontation, involve little planning or resources, and are often anonymous (Norgrove and Hulme 2006; Holmes 2007). This low risk approach is not aimed at challenging protected areas as institutions, but about changing de facto regulations so that local people work their everyday encounters of protected areas to their minimum disadvantage. Local communities use them against protected areas when more formal and more effective options are not available, and stop using them when better options arise (Neumann 1995; Norgrove and Hulme 2006). Such techniques can be very powerful, as in Western's (1994) example of wildlife spearing in Amboseli. Here resistance was effective because it targeted highly visible flagship species, such as lion and elephant, where attacks on wildlife could relatively easily lead to a noticeable decrease on their numbers, the preservation of which were a key conservation goal. Attacking high value, high profile wildlife was a high impact form of resistance which carried few risks or costs, giving local people a trump card which could cause conservation to fail. Yet such powerful low risk options are rarely available, and the literature suggests that while such weapons of the weak can have some impact in limiting or delaying certain protected area policies, they are generally unable to seriously challenge the existence of protected areas or their ability to protect biodiversity (Neumann 1995; Norgrove and Hulme, 2006; Holmes 2007; Kabra 2009).

What this literature demonstrates is that there are a great variety of factors which enable or prevent local people from shaping protected areas to their liking, which determines whether or not local opposition can cause protected areas to fail. These come from a broad range of sources, from national politics to protected area strategies to local social structures. The following sections outline a case from the Dominican Republic that demonstrates how changing political, social, economic, and cultural factors increased and decreased the ability of local people to influence protected area policy.

CASE STUDY: EBANO VERDE SCIENTIFIC RESERVE, DOMINICAN REPUBLIC

The Dominican Republic is a good place to study the principle of local support. Despite being relatively highly densely populated, IUCN category I and II protected areas cover 21.5% of the country, the fourth highest percentage of any country in the world (Holmes 2010). During the last quarter of the twentieth century, protected areas were expanded with little consideration of rural people (Holmes 2010) leading to resentment. Yet Dominican protected areas have been celebrated as a paragon for the rest of the global South to follow because they are seen by some as symbol of environmental foresights which stand in stark contrast to the interlinking ecological, social, economic, and political crises in Haiti, with which the Dominican Republic shares the island of Hispaniola (Diamond 2005)—although it should be noted that Dominican conservation is not as widespread or effective as Diamond suggests (Holmes 2010). Although various authors agree that this growth was due to the drive of the dictatorial president Joaquin Balaguer, who ruled from 1966–1978 and 1986–1996, it remains unclear why he was so keen on creating protected areas (Diamond 2005; Holmes 2010). Protected areas in the Dominican Republic have tended to follow the fences and fines approach with very little community involvement or outreach, and minimal long term planning. Regulations are often enforced in a *de facto* manner by the militarised forestry policy, while the involvement of international NGOs in Dominican conservation has been minimal (Geisler et al. 1997; Holmes 2010). This case study considers Ebano Verde Scientific Reserve, a 32 sq. km area located in the central highlands. It is based on largely qualitative fieldwork conducted between October 2006 and April 2007, examining the history of the relationship between the reserve and two neighbouring villages, El Arroyazo and La Sal. These villages were selected as they are the only villages located on the periphery of the reserve, their residents relied much more heavily on reserve resources than other villages in the region, and each contained a guard station and a public entry point to the reserve. Consequently, they were the two locations that were most affected by the reserve's regulations and whose activities most affected the reserve. Data was collected from participant observation of everyday life and livelihood activities of one village, El Arroyazo, as well as a household survey of livelihood and land use history of all households in the village (n=58). Semi-structured interviews of 46 men and 10 women who were identified as key informants from the participant observation were undertaken, as well as 2 participatory exercises in which 15 men were asked to rank the importance of various livelihood activities, land uses, and forest resources. There were also semi-structured interviews with 4 men and 5 women from a second village, La Sal. Multiple repeat semi-structured interviews of all 7 reserve guards, the reserve administrator, and the director of the NGO that administer the reserve, and observations of 2 participatory planning exercises set up by the reserve to allow local input into reserve strategy were undertaken. This data was then used to construct a history of the villages, its occupants, their livelihoods, and shifting relationships with the reserve.

The reserve is located in a tropical montane ecosystem at around 1000 m above msl. There is no evidence of any human habitation of the area until the two villages were settled in 1950 by subsistence peasants searching for new lands (while the pre-Columbian Taino inhabitants of the island were known to have settled in neighbouring valleys, there are no archaeological traces in the area surrounding the valley, and

the Taino were extinct by 1550AD). The central mountains of the Dominican Republic were largely uncontrolled and very sparsely populated during the colonial era, but from the mid-nineteenth century onwards they were colonised by peasants seeking new land, and occasionally by those seeking to escape government control (Moya Pons 1995; Turits 2003). The state's reach only extended to the more remote areas of the central highlands during the early years of the dictatorial rule of Rafael Trujillo (1930–1961).

The area around the reserve was initially opened up by a dirt road constructed in 1950 to allow a small state-owned lumber mill, fed by lumber from a large piece of state-owned common access forest. Although the mill closed within 2 years, the settlers claimed land around this state forest as private property under colonists' rights to *terra nullius*, and used shifting cultivation to grow root crops (manioc, sweet potato) for subsistence, both on the private land and (largely) within the commons, with occasional excess sold on the market. The forest was also used to corral animals. Timber was cut largely for subsistence, but also to sell to merchants, particularly pine (*Pinus Occidentalis*) and Ebano Verde (*Magnolia Pallenscens*), a prized hardwood.

In the mid 1980s, concern grew amongst conservationists that Ebano Verde was critically endangered, due to its very limited habitat (it is endemic to just two sites in the central highlands), its growth and reproduction are slow, and because it was being cut down to meets demand from furniture makers in the lowlands. Dominican conservation has historically been dominated by a small elite who operate through social connections. Their major successes, particularly the creation of protected areas, have come through close connections to influential politicians, notably to the presidency during the highly centralised dictatorship of Joaquin Balaguer (1966–1978, 1986–1996) (Holmes 2010). Following this concern, the head of Balaguer's forestry service met with the president of one Dominican conservation NGO, *Fundación Progressio*, to discuss how to protect the Ebano Verde and the montane cloud forest. This NGO is considered particularly well connected as its directors include bank directors, major industrialists, high court judges, national newspaper editors, and a Roman Catholic cardinal. *Fundación Progressio* drafted a proposal to turn the state forest into a scientific reserve, which the government accepted, creating the reserve in 1989. While the land of the reserve is state property, all responsibility for administering and financing the reserve was devolved from its inception to *Fundación Progressio,* giving them significant autonomy. Such NGO involvement in protected area management is unique in the Dominican Republic, where the government is highly centralised, and it reflects the close connections between the directors of *Fundación Progressio* and the Balaguer administration (Holmes 2010). Like many other Dominican protected areas, Ebano Verde Scientific Reserve operated without a formal management plan, and has emphasised strict protection and preventing any use of the forest resources, and had no community involvement until 2007. It is classified as a category Ia protected area under the IUCN system, the strictest possible, which involves a minimum of human visitation.

By the time the reserve was declared, the populace of the area were concentrated in two villages of around 50 households each located on the south and west side of the state owned forest (Figure 1). Upon the reserve's legal creation, villagers were immediately told by the forestry police that they had one month to stop using the land and the resources inside the reserve. This measure severely constrained local people's access to resources. In particular, it limited the land available for farming to small plots of privately owned land surrounding the villages. Household surveys indicate that 92% of households farmed in the forest commons in 1989. At present, 43% of households in El Arroyazo own no land; the majority of these households depend on often precarious waged labour. A further 26% of households own less than 0.4 ha. Almost all livestock were sold because there was no longer sufficient land for grazing. Local people's livelihoods were further limited by loss of access to wood for subsistence uses and for sale.

Although this exclusion from the forest sparked discontent, it did not lead to opposition, for three reasons. Most importantly, they were fearful of the notoriously violent militarised forestry police (for details of their violent history and peasants' fear of it, see Rocheleau et al. 2001; Roth 2001). One villager described that he obeyed the order to leave the forest rather than resist because "people would die [disobeying the forestry police]... it is better leave all you had than to die" (old male subsistence farmer, El Arroyazo). Others recalled the notorious prison run by the forestry police where "they torture you, it is worse than under [notoriously repressive president] Trujillo... you come out a different person" (housewife, El Arroyazo). Peasants have historically fled or acquiesced to violent state regulation in the Dominican Republic (Turits 2003). Secondly, the reserve's creation surprised villagers, who described how the reserve "grabbed us by the throat" (male flower cultivator, El Arroyazo). Decisions about the reserve all took place in meetings between bureaucrats and NGO staff in the capital; the villagers were not aware of the process let alone not having been consulted. They were first made aware of its creation when they were given a month's notice to leave the forest, leaving them no time to coordinate resistance—"we didn't know how to organise" (male flower cultivator, El Arroyazo). Thirdly, villagers' resentment was tempered slightly by promises by the reserve to compensate for livelihood losses through community outreach programmes

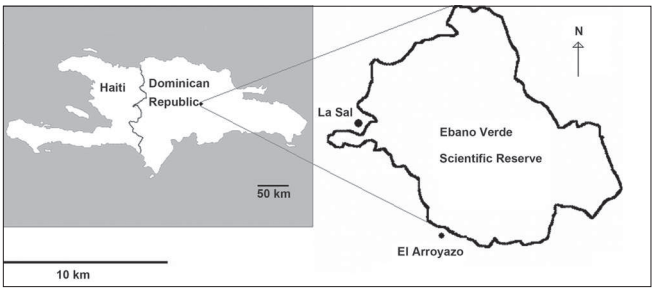

Figure 1
Map showing the location of the Ebano Verde Scientific Reserve, Dominican Republic

and employment. In the short term, these were sufficient barriers to prevent resentment turning into opposition that could undermine conservation.

Regulation initially focused on the village of La Sal as it had a disproportionate number of residents cutting Ebano. The reserve headquarters were located there; local men were recruited as guards, providing employment to substitute for lost access to forest resources. After a year, resentment increased as much of the promised compensation did not arrive, and regulations were tightened. In particular, the reserve authorities unilaterally declared an approximately 5 km deep buffer zone around the reserve, encompassing large amounts of privately held land around the villages. They began to regulate farming and livelihood practices within it despite buffer zones having no legal status in Dominican legislation. The director of *Fundación Progressio* described how the organisation 'played a little game' with locals, telling them that the land in the buffer zone belonged to the reserve, so that the NGO could regulate these areas because they felt the forestry police were not protecting them enough. That they could impose regulations which had no legal basis shows the power of the reserve authorities in contrast to the peasantry.

Restrictions on using fire to clear stubble, cutting timber or gathering firewood severely affected livelihoods, yet these were not resisted in La Sal because of the pre-existing social relations between guards and villagers. Reserve guards were predominantly recruited from La Sal, as a tactic by the administering NGO to provide alternative livelihoods to woodcutting. In the context of a small, close-knit village, they were also friends, neighbours, and close relatives of those whose behaviour they were regulating. In these communities, cultural norms very strongly emphasised avoiding conflict with fellow villagers. Good neighbourly relations and the resultant social capital were essential for accessing labour and resources in what was until the 1990s a largely non-monetary economy. Disputes are largely tolerated, or sometimes settled through an intermediary and thus avoiding direct confrontation between the parties. Conflict would rupture the social ties between the two parties, with knock-on effects for friends and neighbours. In many cases, one of the disputants would end up leaving the community entirely. In the only dispute during my fieldwork that was not tolerated or resolved using intermediaries, two men in El Arroyazo came to blows and one ended up moving to Santo Domingo the next day. There were two cases in El Arroyazo where inherited property was disputed by siblings. In one, the party who felt they lost out tolerated the injustice, explaining that a challenge was not worth the social and economic consequences. In the other, an open dispute led to one man completely breaking ties with his family despite the serious subsequent hardships from losing farmland and opportunities for day labour. This well entrenched and widely acknowledged social norm means people go to great lengths to avoid conflict with fellow villagers. Villagers explained that "people want to avoid punches" (male flower cultivator, El Arroyazo) because of the major consequences of arguments escalating.

As a result, the residents of La Sal chose to obey guards' regulations rather than resist—one guard explained "People are more likely to listen if they know you and you tell them to stop doing something, people always listen to their friends" (male guard, La Sal). Acquiescence to these regulations severely restricted the ability to pursue traditional livelihoods of cultivating root crops and beans, and access to valuable resources such as firewood, and many chose to migrate to lowland cities, and the population declined steadingly. In 1998, floods caused by Hurricane Georges swept away the bridge connecting the village to the outside world. The reserve refused to fund a replacement, but eventually a weak wire bridge was constructed, but this precarious link left the village unreachable by motorised transport. The loss of reliable access to markets and services accelerated population loss until the final inhabitants left in 2003. Former residents see the tight regulations and refusal to help with livelihoods and the bridge as a long term plan by the reserve to drive them out—"they ended the village" (female former resident of La Sal), "they threw us out" (female former resident of La Sal). In La Sal, social norms and social relations prevented resentment at conservation turning into resistance for over a decade. The reserve could be considered a success in the zone around La Sal: it has continued and even strengthened as an institution, its employees have an increased ability to patrol and enforce regulations in the area, and both former residents and guards note that the forest is beginning to recover from the effects of farming and logging in both the core reserve area and the buffer zone. These successes have come despite a lack of local support, but because local people were constrained from fighting back and reshaping reserve policy because of memories of state violence, inability to organise, and the social links they had with reserve staff.

The case of El Arroyazo

A similar pattern of growing disenchantment with broken promises and tightened regulations, particularly the extension of regulations into activities on private property in the buffer zone, occurred in the other village, El Arroyazo. The reserve authorities began to concentrate more on this village as activities in La Sal came under control, relocating the reserve headquarters to El Arroyazo in 1995. Unlike at the moment of the reserve's creation and in La Sal, resentment at tightened regulations was met with resistance, due to two key factors. Firstly, villagers realised after a few years that reserve guards were not the same as the forestry police, and hence they did not need to be feared in the same way—one described how initially they "respected the uniform" but that "now things are different from the start" (male wage labourer, El Arroyazo). Secondly, the cultural norms and social relations which restricted resistance in La Sal were no longer present in El Arroyazo because the guards were all strangers from a different village, with no social or family ties to residents of El Arroyazo. Tightened regulations were met with resistance. Villagers would not cooperate with the reserve, and refused

to denounce neighbours who broke the rules. Following new rules or contentious incidents, wildfires would be set on the periphery of the reserve—one male flower cultivator who recalled setting such fires stated that this was out of 'revenge' for reserve regulations, not necessarily out of any expectation of change. There would be fights between guards and villagers. One male flower cultivator, known for such fights, claimed he did this to stand up for fellow villagers against 'abusive' guards who were "messing in things [farming practices on private lands in the buffer zone] that were not theirs". Guards, who had to travel through the village to reach the reserve office from the main road, would speed through on motorbikes rather than walk because villagers would throw bottles and stones at them. This resistance led to an incident in 1998 where some brothers using fire to burn stubble on their plot were confronted by a guard. The farmers, who had been subject to a number of interventions by reserve authorities in previous years, angrily chased the guard with their machetes, nearly catching him. This incident, which could have been fatal, is widely recognised by villagers as changing reserve practices. The reserve authorities began to turn a blind eye to many activities, such as small scrub-clearing fires or gathering subsistence timber, in which they would have previously intervened, to avoid further, potentially lethal, violence (for a similar example of violence leading to guards turning a blind eye in Uganda, see Norgrove and Hulme 2006). Fires to clear scrub are openly and frequently set within the village, and subsistence wood cutting is done openly in daylight. In more serious incidents, such as extensive commercial timber cutting, they call the forestry police to intervene, rather than do it themselves. The chief guard stated that such tolerance and indirect regulation was because they "want to avoid situations of conflict with the community". Unlike in La Sal, in El Arroyazo there were no social connections between guards and villagers, and so the same constraints against resistance were not present. As a result, villagers were able to reshape reserve regulations to a situation which benefitted them more.

The violent resistance to regulation in the buffer zone meant that villagers have won concessions which allowed them to continue their agricultural practices. They have moved from growing subsistence root crops to the cultivation of ornamental flowers, taking advantage of a unique cool micro-climate which allows European flowers to grow in the Caribbean and good transport links to the markets of the large cities. The intense nature of growing flowers provides farmers with sufficient income to support themselves from a much smaller plot of land than is required to grow sufficient subsistence crops. Villagers are clear that floriculture allowed the community to survive, with one farmer arguing that had they not been able to diversify, then "the reserve would have finished us like La Sal". Villagers sometimes argue that growing flowers has made El Arroyazo slightly wealthier relative to neighbouring villages.

Despite this success in one part of the buffer zone, the core area of the reserve remains unchallenged despite long term significant discontent with its regulations. Villagers had a strong sense that their own livelihoods had been significantly affected by the reserve, and that as such, it had a long standing but unfulfilled moral obligation to compensate them, although the reserve guards counter this by arguing that as villagers were damaging the forest, they do not deserve compensation. The villagers' sense of a moral debt has weakened slightly since floriculture emerged as a viable alternative livelihood to subsistence farming—as one male vegetable farmer stated, they "have forgotten how much we depended on the forest", but the desire to reclaim it remains strong. Many argue that the reserve conspires against peasants and their livelihoods—a typical statement was "our parents founded this community, we grew up here and they [the reserve] want to throw us out" (teenage flower cultivator). They consistently state that they would like the reserve to disappear so they could reclaim forest resources—"if it could go away tomorrow, the people would want that" (male wage labourer). Yet no actions are taken to reclaim the reserve as they were taken to limit regulation in the buffer zone. Villagers state that there is no point in even contemplating a challenge because the reserve, like other projects implemented by the state or powerful corporations, is indefatigable, far more powerful and permanent than the weak peasantry. One housewife argued that "the government can do what it likes and the peasant doesn't matter", and a male flower cultivator stated "the big dog always eats the small dog". When asked why villagers did not try to reclaim resources lost to the reserve, one housewife lamented rhetorically "Imagine, what can you do with an organisation like that?" The difference in power meant that resistance to the core reserve area is not even considered.

The reserve authorities project an illusionary picture for the governments and funding bodies such as international development and environmental NGOs that they provide economic assistance to villagers, that villagers participate widely in the reserve management, and that villagers approve of the reserve's activities. This reflects the villagers' isolation from means of power. Firstly, the literature produced by the reserve authorities for government and funders details extensive assistance and participation, yet locals strongly and angrily deny these occurred. Secondly, meetings are stage-managed to maintain such an illusion. For example, having worked without a formal management plan for nearly two decades, the NGO running the reserve was forced by the government to develop one in 2007. Government guidelines require local participation when writing management plans, and an external consultant was brought in to run a workshop in April 2007. Participants were invited by the reserve authorities, who selected 15 women and 3 men from 4 villages in the region, including 3 women and 1 man from El Arroyazo. This is significant as women almost exclusively do domestic work rather than farming, and are much less likely to highlight the livelihood impacts of the reserve. Consequently, aided by significant guidance of the debate by the reserve authorities, the discussion on environmental issues focused on the lack of adequate latrines rather than farming or resource issues, and the costs of the reserve were not discussed. Furthermore, as the reserve director explained, only those local residents who were "open minded leaders" were

invited, meaning ones who could be relied on to support the reserve, rather than those who were "closed minded, who don't understand the issues", and so the opinions of the vast majority of residents who opposed the reserve were excluded. The voices of local people were prevented from reaching the arenas in governments and donor organisations from where the reserve draws its influence, finance, and power, even as an illusion of participation was constructed. There was no opportunity to present a counter-narrative about what participation and outreach had taken place, nor to have an input into reserve strategies. By contrast, the NGO are well connected, and can easily reach arenas of political decision-making—as the head guard stated "[our directors] can phone up the [presidential] palace if they need to". This was a significant barrier to the villagers being able to challenge and reshape the reserve as an institution, or to change its policies.

At present, there is a stalemate in El Arroyazo, where the memory of the near-fatal violence prevents the reserve from intervening too much in activities in the buffer zone, and the inconceivability of contesting the reserve means it remains unchallenged by locals. Overall, while local people have been able to win concessions from the reserve in getting a blind eye turned to some activities in the buffer zone around El Arroyazo, the reserve has been a success despite sustained local opposition. Like other instances of weapons of the weak, resistance was enough to limit certain policies, but it was unable to seriously challenge the existence of the protected area. The reserve still exists as a strong institution, it can easily impose its regulations on the core reserve area and the buffer zone around La Sal, and the reserve authorities state that biodiversity and endangered species are increasing in number inside the reserve. Indeed, Ebano Verde scientific reserve has been considered by a consultant report as the most successful protected area in the country (ABT Associates 2002). While the reserve caused considerable hardship and sustained resentment amongst local people, they were largely prevented from challenging the reserve and altering its policies by memories of state violence, lack of time and opportunities to coordinate action against the reserve, social links to guards and cultural norms of behaviour, and the inability to reach important decision-making arenas. Indeed, while the reserve remains more than two decades after its creation, one of the two villages on its periphery has been abandoned as a result of the reserve's policies and the villagers' inability to challenge them. The case demonstrates that local support is not essential for the success of protected areas, that protected areas can survive and thrive despite long term sustained opposition to protected areas because there are often a variety of factors which limit local people's ability to shape protected areas.

CONCLUSION

The idea that local support is essential for the success of a protected area is a widely held and powerful notion in conservation. It has had an impact on protected area policies and strategies. While there is some evidence to support it, as there are cases where local opposition can be shown to have undermined conservation efforts, arguing that local support is essential to the success of protected areas is simplistic. There are numerous counter-examples where sustained local opposition to protected areas has had minimal impact. Protected areas can survive—indeed thrive—despite long term opposition and local discontent. In an era where conservationists are increasingly concerned about the positive and negative impacts of their policies on the rural poor, this is ethically troubling, as it implies that protected areas do not need to consider the well-being of local people as a key factor in contributing to successful conservation (Brockington 2004).

What the social science literature on protected areas, and the case study discussed here, show is that what needs to be analysed are the factors which might empower or weaken local people, and either give them or remove from them the ability to shape protected areas. These can come from a variety of very different sources, from the structure of national civil society to community level social norms, and involve very different forms of power, from violence to discursive. Through this, we would get a much better idea of the relationship between protected area success and local support, and the dynamics of how local people can influence their experience of the costs and benefits of protected areas.

A critical view of the relationship between conservation success and local support is necessary in the context of changing governance of natural resources and biodiversity. One trend is the increased devolution of control of natural resources away from states to communities and local organisations (Agrawal et al. 2008). At the same time, protected areas may increasingly be turning to market mechanisms and putting a financial value on nature as a way of saving it (Igoe and Brockington 2007). New mechanisms and processes such as payments for REDD and other ecosystem services are being created and rolled out. Each of these trends will involve new forces aimed at changing the behaviour of people living in and around the protected bits of nature, and these forces will enable and constrain local people's ability to shape conservation to their liking. For example, market-based conservation puts monetary exchange and economic incentives at the centre of changing the behaviour of various groups of people. Market-based conservation therefore involves different kinds of power relations compared to other conservation models which have a lesser role for the market, and consequently, different forces shaping local people's behaviour and the possibilities they have for political action. When developing and designing such conservation projects, there is a strong need to consider the implications of local people's power to undermine conservation, to ensure it is equitable and fair, and to move towards solutions which are beneficial to both the environment and the local people.

Note

1. "Fences and fines" and "community-based conservation" are two crude

caricatures of policy positions on the extent to which local communities should be involved in protected area management and the extent to which protected areas should form part of local economies. The former emphasises distance between the two, and is most associated with early paradigms in protected areas, although it might be resurgent, and the latter emphasises local involvement and integration into protected areas, and emerged in the 1980s (see Hutton et al. 2005, for a summary of the evolution of these ideas). The two positions are considerably heterogeneous, and individual protected areas may not fit easily into either position.

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