

Hponkanrazi Wildlife Sanctuary, Myanmar

Two Perspectives from the Ground



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ICIMOD gratefully acknowledges the support of its core donors:

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Two Perspectives from the Ground

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International Centre for Integrated Mountain Development
Kathmandu, Nepal, December 2016

Published by

International Centre for Integrated Mountain Development
GPO Box 3226, Kathmandu, Nepal

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ISBN 978 92 9115 413 5 (printed)
978 92 9115 414 2 (electronic)

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Sambung Sin, WCS, Myanmar – p 5; Gumring JungKum, WCS Myanmar – p 9

Cover: Wa-San Dum Village one the fringe of Hponkanrazi Wildlife Sanctuary

Printed and bound in Nepal by

Hill Side Press (P) Ltd, Kathmandu, Nepal

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This publication is available in electronic form at www.icimod.org/himaldoc

Citation: Soe, P.; Pathak, P., Ghate, R. (2016) Hponkanrazi Wildlife Sanctuary, Myanmar: Two perspectives from the ground. ICIMOD Working Paper 2016/14 Kathmandu: ICIMOD

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Acknowledgements

This project was funded by HI-LIFE. Thanks to Bandana Shakya for her encouragement and inputs, and to Brij Rathore for reviewing and commenting on the paper.

Abstract

Whether a local community perceives a protected area to be important and its management to be fair plays a crucial role in park-people relationships. Various studies have shown that participatory management of protected areas is not only more effective than exclusive management, but it also ensures that local communities are not adversely affected. This study examines the park-people relationships in Hponkanrazi Wildlife Sanctuary in North Myanmar through the lens of the common governance principles of accountability, equity, transparency, participation, and efficiency. We solicited the perceptions of both local people and park authorities on these principles. At present local perceptions of the protected area are generally positive but residents are concerned that the laws and regulations which govern the park may excessively restrict them from pursuing their traditional livelihood activities. The communities also cautioned that declaring the area's protected status without following it up quickly with appropriate law enforcement and conservation measures could unintentionally accelerate degradation of the park. Park management staff agree that local people need to be involved, though the government hasn't given any clear directions to this effect. Moreover, the staff haven't been trained to include the community in planning and inclusive management.



A view of Nam-Ru river and adjoining landuse

Introduction

In recent decades, countries around the globe have increasingly been using protected areas (PAs) as an instrument for forest management (Jenkins and Joppa 2009). Whereas PAs were originally envisioned as a tool to help minimize human disturbance, today the majority of the world's PAs are open to at least some form of human use (Naughton-Treves et al. 2005). As the community use and management of PAs becomes more widespread, it is important to understand the relationship between people and protected areas. Many have argued that the long-term success of PAs largely depends on maintaining good park-people relations and that the attitudes, concerns, benefits and losses of the local people need to be taken into consideration (Zube 1986; Newmark et al. 1993; Allendorf et al. 2012). Studies of protected areas from a sociocultural perspective have become common because there is an increasing awareness of the effect of PAs on people who live in and around them (West and Brockington 2006).

Understanding park-people relationships involves examining how local residents perceive the presence of a protected area in their lives and livelihoods. These inputs should guide the formulation of PA policies and strategies to make them both effective and sensitive to the community's needs (Mukherjee and Borad 2004). As such, one of the indicators of success for protected areas can be people's positive perception regarding the PA's impact on their lives (Struhsaker et al. 2005). Integrating the local residents' concerns at the outset is even more important in countries where PAs typically do not receive sufficient support from the government and do not have adequate management resources such as staff, funds and infrastructure (Allendorf et al. 2007).

Another factor that can determine the effectiveness of a protected area is good governance, which necessitates active role for local people. According to the IUCN's good governance principles, effective governance should include the voices of local people, accountability, fairness, and rights, among others. A global study by Leverington et al. (2010) found that about 40% of the PAs in the study showed management deficiencies. A recent study on PAs in the Himalayas (Bhutan, India and Nepal) showed that many PAs lacked sufficient staff, equipment, finances, and infrastructure. The study recommended addressing this gap and ensuring the participation of local people in decision making and management (Oli et al. 2013). It is now well established that forest users are more likely to comply with rules for natural resources management when they have been consulted or involved in the formulation of the rules; this is reiterated in a case study that uses diverse research methods on different scales in South Asia (Ostrom and Nagendra 2006). In the present work, we attempt to understand the extent to which the community is involved in making decisions regarding the management of a protected area in north Myanmar, at the eastern edge of the Himalayas. This protected area is known to be deficient in management interventions and we wished to learn how the local communities and the PA management staff perceived the situation.

Governance Principles

Governance has been variously referred to as a process, a mechanism, institutional capacity, a set of rules, as well as the general state of relations within a society. To some, governance connotes a complex set of structures and processes, whereas to others, the term is synonymous with government and its public functions (Weiss 2000). Since the 1980s the term has included the concept of the devolving of political power from the state to other societal actors such as citizens, the private sector, and civil society (Rhodes 1996; Graham et al. 2003). In this new configuration, power is also exerted by transnational movements that transcend the territorial boundaries of the nation-state to form associations at the local, national and global level (Gravel and Lavoie 2014). Governance through which society determines and acts on goals related to natural resources is called environmental governance (IUCN 2014). It includes 'all kinds of measures deliberately taken to prevent, reduce and/or mitigate harmful effects on the environment' (Driessen et al. 2012, p.144). Environmental governance is important in all situations where natural resources are intentionally used or appropriated as well as in situations where human actions produce unintended impacts on the environment (Young 2011).

Good governance connotes being closer to the people. Decentralization and people's participation are now considered important components of good governance (Sadeque 2000). Institutional arrangements and stakeholder involvement in decision making are essential for establishing strong and transparent governance for biodiversity conservation (Schoon 2013). Collaborative governance in transboundary protected areas also helps achieve ecological, economic and political goals for biodiversity conservation, as it improves information sharing and promotes collective decision making (Schoon 2013). In Myanmar, governance is now an area of special concern. The country is in the process of strengthening the existing PAs and establishing new ones. There is general awareness that laying out the principles of good governance from the outset will lead to better long-term outcomes for protected areas.

Closely linked human and natural ecosystems

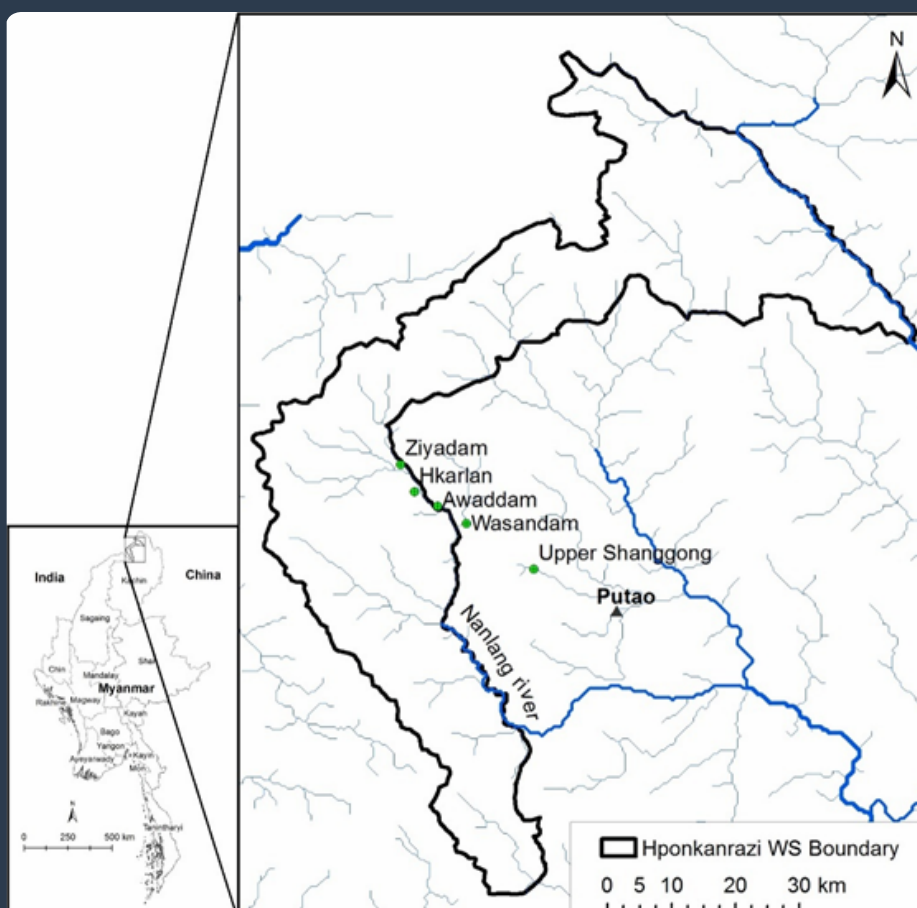


Study Area

Myanmar has undergone a number of large-scale economic changes in recent years, all of which have implications for the country's rich biodiversity and for its natural resources (Webb et al. 2012). Myanmar still has tracts of virgin forests larger than most other countries in mainland Southeast Asia (Leimgruber et al. 2005). Compared to China and India, the countries that border Myanmar, it has more than twice as much forest cover; however, whereas the percentage of forest cover shows an increasing trend in these two neighbours, it is decreasing in Myanmar (The World Bank 2014). The loosening up of the rigid totalitarian system has led to a demand for more democratic local management of natural resources (Macqueen 2012). Conservation initiatives around PAs need to become more effective to keep pace with recent social and political changes. Recent studies have also shown that Myanmar's PA system needs major repairs (Myint Aung 2007, Rao et al. 2002).

Many of the protected areas in Myanmar have human settlements that are not compatible with their PA status (Rao et al. 2002). Given the lack of government interventions for the management of these areas, a practical alternative might be to involve the community in the management and conservation of natural resources. A country-wide study by Myint Aung (2007) found that management plans typically do not regard the local communities as stakeholders. The study recommended that the local communities' relations with PAs need to be nurtured and maintained in order to make the PAs more effective.

Figure 1. Study areas in the Hponkanrazi Wildlife Sanctuary



Community involvement in the management of protected areas is still a relatively new concept in Myanmar. Most of the protected areas are classified as wildlife sanctuaries and managed mainly for conservation (Istituto Oikos and BANCA 2011). The Myanmar Forest Policy, the Protection of Wild Life and Wild Plants Act, the Conservation of Natural Areas Law of 1994, and the 1995 Forest Rules all encourage community participation but these are not yet implemented at the community level (Myint Aung 2007). The current management planning does not entail consulting the local communities. Planning, when it does occur, is carried out by the Forest Department staff on an ad hoc basis since management planning is a relatively new concept in the administration of PAs (Myint Aung 2007).

Further, Myanmar lacks adequate resources for PA management or PA infrastructure development (Rao et al. 2002). If park-people relations are favourable, park managers could gain the local community's support for effective management of PAs even in the absence of external resources (Allendorf et al. 2012).

This study was carried out in the Hponkanrazi Wildlife Sanctuary (HPWS) in Kachin State. It is one of the five contiguous protected areas of Myanmar's Northern Forest Complex. Mount Hponkanrazi, around which the wildlife sanctuary was created, is a popular ecotourism destination. The site harbours some threatened species such as the Eastern Hoolock gibbon (*Hoolock leuconedys*) and the Red Goral (*Naemorhedus baileyi*) as well as wild dogs and mongoose (MOECF 2011). The HPWS, which was established in 2004, is one of the more recently established protected areas and also one of the larger ones, encompassing an area of 2,703 km². There are six villages on the perimeter of the sanctuary and seven more which straddle the boundary. Since the formal announcement of the sanctuary, no new settlements have been permitted. To date, no dedicated staff has been assigned to this PA and consequently enforcement activities are not taking place. Since July 2014, many PA-related activities in this sanctuary have been carried out by the staff designated for the Hkakaborazi National Park, which is also part of the Northern Forest Complex.

Many communities in this area traditionally practice shifting cultivation to produce rice and most of their staple foodstuff, but this method of farming has been banned since the establishment of the protected area. Most villages have now switched to sedentary farming methods. Since the establishment of the sanctuary and the ban on shifting cultivation, villages inside the park boundaries have also been allegedly prohibited from farming beyond a limited area. Nevertheless, residents report that their yield has been sufficient most of the years, except in a few instances where they faced food shortages after switching to sedentary farming. These communities also supplement their incomes by hunting, but wildlife is dwindling. In an earlier survey conducted during the period 2004-2005, Rao et al. (2010) found that most families earn more from farming than from hunting. Residents also said that they made significant earnings from the collection of medicinal plants. This shows the importance of natural resources in ensuring the livelihoods of local communities in the PA. In this paper, we examine the perceptions of local residents and park management staff regarding community participation and PA governance in the Hponkanrazi Wildlife Sanctuary. We have focused on the perceptions of forest officials at the local level and not senior officials at the forest headquarters. We intend to make a case for why local communities should be included in forest management, especially as existing policy does not ensure that.

Community consultation on integrated landscape management at Wasandum village



Field personnel from Wildlife Conservation Society explain how to use mobiles in mapping landscape assets



Methods

The study uses a qualitative approach to examine the perceptions of the local people and the park management staff of Hkakaborazi National Park, which is currently managing Hponkanrazi Wildlife Sanctuary. A qualitative approach can help expose a wide range of issues and is thus best suited for exploratory studies (Raval 1994). Five focus group interviews were conducted with the communities and five in-depth interviews were conducted with the park management staff. The communities and the staff were not randomly sampled because the study aimed to document perceptions rather than to predict phenomena (Miles and Huberman 1994). The selected communities are shown in Fig. 1. Our study areas included four villages located on the banks of the Nanlang Creek, which runs along the boundary of the park. Two of the villages are located inside the park and two outside, while one village is on the periphery of the park. In-depth interviews were conducted with park management staff from diverse ranks (forester, ranger, and park warden) and representing a range of responsibilities.



Village head talks about recently introduced walnut tree

Table 1: **A review of the principles and frameworks for good governance of protected areas**

Lockwood (2010)	Asian Development Bank (2011)	IUCN 2013 (Borrini-Feyerabend et al. 2013)	Oli et al. (2013)
Accountability	Accountability	Accountability	Accountability
Fairness		Fairness and rights	Fairness
Transparency	Transparency		
Inclusiveness	Participation		
		Performance	Performance
Legitimacy		Legitimacy and voice	Legitimacy and voice

Table 2: **Villages interviewed and some social and economic indicators**

Name of village	Majority ethnic group	Total number of households	Major livelihood activities
Awaddam	Rawang, Lisu	48	Farming, hunting, collecting forest products, and retailing (grocery shops)
Hkarlan	Rawang	36	Farming, hunting, and collecting forest products
Upper Shanggong	Rawang	160	Farming, hunting, collecting forest products, and gold prospecting
Wasandam	Rawang	27	Farming, hunting, and collecting forest products
Ziyadam	Rawang	22	Farming, hunting, and collecting forest products



Showcasing of Rawang's traditional artifacts during the consultation

The interviews probed five principles of governance with a focus on community participation. We selected these principles in accordance with well-established frameworks such as the IUCN good governance principles for protected areas (Borrini-Feyerabend et al. 2013), and others that are outlined in Table 1. To understand how people's perceptions would impact the effectiveness of the protected area in the HPWS, we decided to examine their perceptions of the following principles: (i) equity and fairness, (ii) inclusiveness and participation, (iii) transparency, (iv) accountability, and (v) efficiency and effectiveness (as a proxy for performance). Legitimacy was not a consideration since all the PAs in Myanmar are under government jurisdiction. We did not evaluate overall performance since the HPWS is a newly established park and not fully operational yet.

Some of the interviews were conducted in Bamar (Myanmar), and others in local languages such as Rawang, and Naga. All transcripts were first translated into Bamar and then into English for coding and analysis. The inputs were analysed according to the governance and community participation parameters discussed above. We acknowledge that some of the inputs, especially those regarding illegal activities (such as hunting), may be skewed because these were village-level interviews where the respondents may have felt some pressure to give answers that would be acceptable to the group. We expect that some of the responses might have been slightly different had the interviews been conducted at the household or individual level, but this was not feasible because of social constraints that make private conversation with an outsider difficult.

Results

The communities that were interviewed thought that they should play a role in protecting the forest from exploitation by outside extractors and businesses, and that local governance could be a way to ensure that future generations continue to benefit from the forest resources. They were concerned that exclusive management would likely curtail their livelihood activities, especially extraction of forest products, and restrict their ability to continue with their traditional farming method, i.e., shifting cultivation. They also feared that there might be excessive extraction in the short run due to fear that the regulations will be enforced more strictly once full-fledged management comes into force. On the other hand the PA managers assumed that many local residents resented the fact that their normal activities like hunting and shifting cultivation would be curtailed in the near future. For them, cooperation from the community amounted to local residents abiding by the PA rules. Forest officials did not expect that the community would be involved in setting these rules or participate in governance in general.

Home garden and fallow lands around a traditional Rawang house in Nam-Ru Thu village



Community Perceptions of the Hponkanrazi Wildlife Sanctuary, Myanmar

Most communities appreciated the fact that the establishment of a conservation area at Hponkanrazi could provide a measure of protection against outsiders who want to collect forest products. They also appreciated the long-term possibility of preserving their natural patrimony for future generations, but they could not elaborate on the benefits of inter-generational equity and sustainability. The communities expected the PA to help prevent exploitation of the forest resources by outsiders.

The local residents went on to describe the specific economic and livelihood benefits that the location provided them. According to them, high-altitude *yarsagumba* (*Ophiocordyceps sinensis*) and medicinal plants were a significant source of income for households with physically strong members. However, since a collection trip to remote high mountain areas could take up to several weeks, not all households in the community pursued this livelihood option. Nevertheless they cited it as a positive example, saying that the activity benefited “anyone who could extract the resource.”

Professor from Department of the Livestock, Myanmar inquires about the bamboo species





Forested landscape of Upper Shanggong

Table 3: **How villages of the HPWS view the presence of a protected area in their vicinity**

Benefits	Name of village
The forest is protected from poaching by outsiders	Hkarlan, Wasandam, Ziyadam
Locals can continue to benefit from the extraction of forest products	Awaddam, Upper Shanggong, Wasandam
Future generations are guaranteed access to the forest	Awaddam, Hkarlan
Concerns	
Likely ban on extraction of forest products	Awaddam, Wasandam, Ziyadam
Ban on farming by shifting cultivation methods	Upper Shanggong, Wasandam
Farming only be allowed within a restricted area	Hkarlan, Ziyadam
Lack of law enforcement in the PA will encourage overharvesting of forest resources	Upper Shanggong, Ziyadam

The communities were apprehensive that they could potentially lose their village farmland if the government decided to restrict farming inside the PA. Official farming permits have been issued for farmlands around the villages on the eastern side of the Nanlang River, which are outside the PA boundary. In contrast, no such permits have yet been granted for farmlands on the western side of the river (which are inside the PA boundary). The residents of Ziyadam and Hkarlan, the two villages inside the boundaries, were worried that they might not obtain their farming permits and be prohibited from farming around their villages. Residents of Awadam, a village on the eastern bank of the Nanlang River, said they would also want permission to farm on the flat land on the western bank of the river inside the PA boundary. They said they needed this to help provide sufficient food for the growing village since the availability of flat land is limited in the mountainous area of the HPWS.

The local residents summarised their concerns. They said they were afraid that the park management laws would take away their existing livelihoods. They were most concerned that they would be prohibited from practising shifting cultivation, a livelihood option that was already being curtailed, though the regulation had yet to be implemented strictly. This was equally true both for the villages inside and outside the boundaries of the protected area. Upper Shanggong village residents reported that they had to ask for permission to practise shifting cultivation in the previous year when there were severe food shortages. At the time permission was granted for a year and the ban has since resumed. Even though their settlement is outside of the park boundary, the residents of Wasandam village said that the ban on shifting cultivation had caused hardships and put stress on their food supply.



Fish are important provisions from the Mu-Lar river

Hunting is another livelihood option in danger of being restricted, but surprisingly local residents did not mention this during many of the discussions. Three communities mentioned that they would like hunting to be a community access right, but they did not mention it as an important livelihood activity. The selling of tree fruits from neighbouring forests was not considered to be at risk; however, this activity was also not perceived to bring a significant income. It was also surprising that the communities did not mention crop depredation by wildlife as a serious concern, despite the fact that depredation was likely to increase once wildlife began to thrive under the protection of the PA. It is likely that residents have not previously experienced much depredation since hunting kept the number of wild animals in check.

Table 4: Responses of local residents regarding community participation and PA effectiveness

Equity and fairness

- In principle everyone has equal access to forest products.
- Practically, distribution of economic benefits from the PA is not fair, with villages outside the PA suffering less than the ones inside.

Inclusiveness and participation

- The community was not consulted before the park was established.
- The community has no opportunity to participate in park management and planning.
- Employment opportunities are rare but potentially exist in the tourism sector.

Transparency

- Park boundaries are not marked but those who collect forest products can identify the boundaries along major landmarks (such as rivers).
- Local residents are not fully aware of land rights and usage rights.
- Local residents are not informed about the rationale behind certain management decisions regarding the PA (and neighbouring areas).

Accountability

- Local residents are apprehensive about park authorities not taking their responsibilities seriously in case of park-people conflicts.

Efficiency and effectiveness

- Local residents see the forest as a source of livelihood but do not attribute benefits obtained from it to the PA management since this was something they enjoyed even before the PA existed.
- Most residents accept the existence of the PA but worry that it will entail restrictions on their livelihoods in the future.

Some local residents thought that they were not benefiting proportionately from the economic activities taking place in the sanctuary. They said that income from tourism mostly benefited people from outside their communities. Residents talked of wanting more jobs as porters – even though they recognized that trekkers preferred to hire porters at the beginning of the trek (at the town of Putao) rather than from their own villages, which are located midway along the trekking trail. Some villagers recalled that a few years ago a private company started extracting rattan. The local communities did not benefit from the venture (for instance, it didn't provide them employment opportunities). Instead they found that their rattan resources were depleting fast. Eventually the village leaders were forced to appeal to the authorities to stop the operation.

The local residents were skeptical about the long-term benefits of the protected area. They surmised that the PA regulations, once they come into force, would curtail their right to extract forest products. They said that it was too early to gauge the benefits of protection since the PA was not yet being actively managed -- they reserved the right to pass judgement until such time.

The communities were unanimous in their opinion that the presence of the park would eventually affect their livelihoods in one way or another. However, they did not harbour negative perceptions of the park itself. Even in villages outside the PA boundaries, where people did not have to worry about land use rights, they were concerned that PA regulations would affect their livelihoods at some point in the future. Most local residents said that they currently had no complaints regarding equity and fairness. Not all residents were interested in having some say in decision making, but they were all concerned about restrictions on their livelihoods.

The park designation announcement had some important implications. First, as park regulations were not enforced immediately after the official announcement, it triggered a kind of a “gold rush” phenomenon— people from both near and far flocked to the area to extract marketable forest products (especially *yarsagumba* and medicinal

Landscape journey to explore conservation and development prospects in northern Myanmar



plants). They saw it as their final opportunity to extract and wanted to make the most of it, as extraction would likely be prohibited once the laws were enforced. Similar cases of accelerated extraction of rare or restricted natural resources have occurred in other places (see Brook and Sodhi 2006; Courchamp et al. 2006). Certain instances have also revealed that resource extraction tends to increase when the collection of the resource is prohibited by law (List et al. 2006). Respondents said that the announcement had intensified the extraction of forest resources in the HPWS area. While forest resource extraction might have increased regardless of the announcement, the local residents admitted that they too had felt compelled to extract more after the announcement.

Communities living in and around the park feel some resentment towards outsiders who extract forest products. In their view, these outsiders enjoyed the benefits of the forest within the HPWS without having to endure the same restrictions on their livelihoods. They reiterated that local communities were prohibited from practising shifting cultivation, and were yet to be given official documentation for their farmlands and farming rights, both of which were losses that outsiders did not have to suffer. Many local residents also pointed out that those who collected forest products often accidentally started forest fires, which were a major cause of forest degradation.

Park management staff's perceptions regarding community participation and governance

The issues discussed with park management staff included the rights of village settlements inside park boundaries, farming and shifting cultivation, and forest resource collection, as well as decision making, planning, and management for the protected area. The views of park management staff on community participation and governance issues have an important bearing on the effectiveness of the park. All park management staff interviewed said they strongly believed that community participation was important for effective management of the PA. However, they were unsure of exactly what the community's rights were. Management staff across the board could not say with certainty which land use or forest use rights the local residents had and which they did not have.

Park management staff perceived community participation differently from residents. A number of park management staff thought that many members of the community resented the fact that their forest area was now under the jurisdiction of park authorities. In contrast, the communities said that the majority of their members liked or at least accepted the existence of the park, even if they were still apprehensive that it might eventually interfere with their livelihoods. In general, people were positive about the role that the HPWS could play in conservation and in helping the area to preserve its natural value.

Some PA management staff (across all ranks) were under the impression that community participation mostly meant that the community followed the rules and regulations, especially with regard to forest use. One park management staff said, "It takes a lot to persuade the local people to stop using the forest resources." Another staff, who believed that the local residents were not allowed to use forest resources or the land inside the PA, said that the local communities needed conservation education to keep them from breaking the rules. However, the park management staff that was frequently in touch with the communities recognized that basic livelihood needs had to be met for the park to be successful.



Morning in Saw La Din Village, the water channel used for running a local mill

Table 5: **Differences in perception between local residents and PA management staff**

Principle	Perception of PA residents	Perception of PA authorities
Equity and fairness	<ul style="list-style-type: none"> • Restrictions on shifting cultivation and farming are not fair • Extraction of forest products is fair • PA acceptable as long as alternative livelihoods are provided 	<ul style="list-style-type: none"> • Local residents resent restrictions on livelihoods, and resent being governed by outsiders
Inclusiveness and participation	<ul style="list-style-type: none"> • They have not been asked to participate and have not been able to give their opinions. 	<ul style="list-style-type: none"> • Community participation is essential • Community participation mainly involves PA residents abiding by the rules, and helping to enforce them.
Efficiency and effectiveness	<ul style="list-style-type: none"> • The forest is a source of livelihood but they are worried that effective implementation of PA would mean increased restrictions on accessing forest products. • They recognize the need to protect the forest in order to preserve it for future generations. 	<ul style="list-style-type: none"> • It is difficult to convince villagers of the need for conservation since conservation regulations restrict their access and traditional use of the forest. • Many people do not like the PA because of the restrictions it imposes. • Difficult to implement provisions in this scenario.
Transparency	<ul style="list-style-type: none"> • They know their current access rights generally, but are not informed on the management and decision-making process related to the PA. 	<ul style="list-style-type: none"> • Villagers do not know the management process, but the process itself is not very systematic.
Accountability	<ul style="list-style-type: none"> • Don't know whom to approach for various issues • Don't know if anyone will be held accountable 	<ul style="list-style-type: none"> • No one is specifically accountable, but rules and regulations are there to be referred to.

Conclusions and Discussion

In general the local residents appreciated the designation of protected area status for the HP Wildlife Sanctuary although they had serious concerns about its impact on their livelihoods. They were willing to accept curtailment of some land use and access rights as long as it did not threaten their livelihoods, and benefitted the future generations. This is evident from the fact that many wished for law enforcement to begin as soon as possible – mostly to reduce extraction by outsiders and prevent wildfires. These findings corroborate past studies that show that people generally appreciate protected areas (Mukherjee and Borad 2004, Picard 2003), though local communities have some apprehension regarding restrictions on livelihoods (Bauer 2003, Infield and Namara 2001, Khan and Bhagwat 2010).

As documented by Myint Aung (2007), community co-management has no precedent in the country and the current management plans of the Forest Department do not consider the local communities to be stakeholders for co-management. However, this situation needs to be changed. From the informal interviews and group discussions with the local residents, it was felt that some of their concerns could be addressed by making them partners in decision making, especially when it comes to restricting the use of forest resources such as ban on hunting and shifting cultivation. Alternative income generation opportunities could be explored; locals could be given priority while expanding the tourism sector; and existing farm land rights could be extended with some kind of recognition. The communities of the HPWS expect to get preferential treatment vis-à-vis outsiders; in this, HPWS differs from the case

Upper Shanggong Reserve Forest guidelines



of Royal Bardia National Park in Nepal, where the local residents had ambivalent views on what could be extracted and should be prohibited (Allendorf et al. 2007). The communities in Bardia National Park resented not being able to extract the forest resources they wanted, nevertheless appreciated the fact that extraction was policed and the forest was conserved.

'Protected areas' that lack staff, law enforcement, boundary markers and infrastructure are often referred to as 'paper parks' (Braatz et al. 1992). Myanmar currently has 17 protected areas that are paper parks (Istituto Oikos and BANCA 2011). Since this represents about 40% of the 43 protected areas across the country, it is important to examine the situation. Myint Aung (2007) found that many of Myanmar's paper parks were so badly degraded that it would require large investments to rehabilitate them; he concluded that in most cases, the investment would not be worthwhile. Many of Myanmar's under-resourced and under-staffed protected areas are likely to suffer a similar fate, as people will want to cash in on resources that they think have become rare. Such cases of accelerated extraction of rare or restricted natural resources have also been documented elsewhere (see Brook and Sodhi 2006; Courchamp et al. 2006). In some cases, resource extraction increased when the collection of the resource was prohibited by law (List et al. 2006). However, as the HPWS has only recently been established, large-scale destruction has not yet taken place. To prevent that, it would be important to garner the support of local people by specifying resource use rights and by giving them some role in park management. The Forest Department is not used to sharing its management, planning, and decision making responsibilities, and it appears that the local residents want the Department to break with this tradition. On the other hand, authorities seem to be in two minds about the community's role, particularly with regard to issuing farming rights for areas inside the PA boundaries and letting the community have a say in matters related to PA governance. The former is evident as they have delayed issuing registration documents for the farms inside the boundaries. As for the question of taking the communities on board, the forest officials would do well to realize that studies from around the world have shown that forest protection can (at least in part) be entrusted to the local communities. A meta-analysis of protected areas in the tropics from South America and the Caribbean, Asia and Africa revealed that community-protected forests have lower annual deforestation rates than government-protected forests (Porter-Bolland et al. 2012). Similarly, Ostrom and Nagendra (2006) demonstrated that governance that integrates forest users may be more effective than governance by external authorities alone. Community participation can yield not only social and livelihood benefits but also ecological benefits. Community participation in forest governance is associated with high carbon storage in the forests (Chhatre and Agrawal 2009), and with positive outcomes for both forests and communities (Persha et al. 2011). In Myanmar, community participation in PA management would have to be initiated at the national level because PA management staff do not have the authority to change the current process, nor are they trained to do so. The situation remains a stalemate. Neither the communities nor the PA management staff can make proactive decisions. They only refer to existing rules and laws, which are inadequate for addressing the changing needs.

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ISBN 978 92 9115 413 5