



MULTI-LEVEL CO-MANAGEMENT IN GOVERNMENT-DESIGNATED PROTECTED AREAS – OPPORTUNITIES TO LEARN FROM MODELS IN MAINLAND SOUTHEAST ASIA

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ABSTRACT

There is broad consensus that the ecological-social landscapes for government-designated protected areas should comprise core areas and their surrounding buffer zones and that the essential tasks for managing these landscapes should comprise: (i) ecological research and monitoring, (ii) law enforcement, (iii) community outreach and awareness raising, (iv) community livelihoods development and engagement with community managed lands, (v) ecotourism, and (vi) habitat management. This paper proposes that these tasks should not necessarily be undertaken by the protected area agency alone. Instead, it recommends investigation into the development of protected area management working groups in the different fields of management, whereby these networks create institutional linkages between the grassroots communities, other local stakeholders and a protected area co-management committee. The paper draws from the authors' experiences and briefly describes models for such local networks already being implemented in northern Vietnam and Laos for protected areas with high biodiversity values. While many of the approaches described are still too young to draw conclusive evidence of their efficacy, their implementation demonstrates that local interest for innovative approaches to co-management can be generated.

KEYWORDS: co-management, protected areas, Vietnam, Laos, local communities, management

INTRODUCTION

There are now more than 177,547 protected areas worldwide, covering more than 12.7 per cent of the Earth's land surface (Bertzky et al., 2012). But designation is only the first step. If protected areas are to be effective in fulfilling their role in biodiversity conservation, they must be well managed (WWF, 2004). During the last four decades there has been a rapid development of protected area management approaches moving away from the traditional "fortress" approach to take greater account of the needs of communities and

stakeholders within the broader social-ecological landscape. Buffer zone management (Wells et al., 1992; Ebregt & De Greve, 2000), integrated conservation and development (Hughes & Flintan, 2001) and collaborative management (Borrini-Feyerabend et al., 2004b) all focus on local communities while aiming to preserve biodiversity within reserves. However, during the same period the threats to protected areas have increased (Dudley & Stolton, 1999), particularly from habitat disruption, hunting and forest-product exploitation (Lawrence et al., 2012), as well as climate change



View of the Trung Khanh District, Cao Bang Province, Vietnam © Nguyen The Cuong

(Hannah, 2003; Hannah et al., 2007; IPPC, 2002). One key issue to have received scant conservation attention is how to organize protected area staff optimally to engage with other stakeholders in the protected area landscape.

Collaborative management, or co-management, has been promoted as a means to bridge the gap between the protected area and local stakeholders. It has been defined in different ways, e.g. 'the sharing of power and responsibility between the government and local resource users' (Berkes et al., 1991), or 'governance systems that combine state control with local, decentralized decision making and accountability and which, ideally, combine the strengths and mitigate the weaknesses of each' (Singleton, 1998). Co-management is a continuous problem-solving process, rather than a fixed state, involving extensive deliberation, negotiation and joint learning within problem-solving networks (Carlsson & Berkes, 2005). This presumption implies that co-management research should focus on how different management tasks are organized and distributed concentrating on the function, rather than the structure, of the system. Such an approach has the effect of highlighting that power sharing is the result, and not the starting point, of the process.

Carlsson and Berkes (2005) recommend that the co-management approach might include (1) defining the social-ecological system under focus; (2) mapping the

essential management tasks and problems to be solved; (3) clarifying the participants in the problem-solving processes; (4) analyzing linkages in the system, in particular across levels of organization and across geographical space; (5) evaluating capacity-building needs for enhancing the skills and capabilities of people and institutions at various levels; and (6) prescribing ways to improve policy making and problem-solving. Bloomquist (2009) proposes that multiple and polycentric institutional arrangements operating (imperfectly) may offer prospects for improved sustainable management of natural resources. Berkes (2002) suggests there is a need to design and support management institutions at more than one level, with attention to interactions across scale from the local level up.

Landscape-level protected area management in Southeast Asia has made advances in engaging local communities through co-management in recent decades. Through this paper the authors are drawing both from their own experiences and other referenced experiences to describe how different components of multi-layer co-management are being implemented and are strongly aligned with the approach proposed by Carlsson and Berkes (2005). This paper reviews the co-management systems field-trialed at sites in northern Vietnam protecting some of the world's most endangered primate species, an ecotourism initiative also in northern

Vietnam and a community outreach network established in central Lao P.D.R. By examining this group of case studies, the paper proposes multi-level co-management for institutional restructuring of protected area management in Southeast Asia for more effective biodiversity conservation.

DEFINING THE ECOLOGICAL-SOCIAL LANDSCAPE FOR PROTECTED AREAS AND CO-MANAGEMENT

From an institutional perspective, the recognition of a buffer zone in national legislation is important for two main reasons. For a protected area authority, it prescribes management responsibilities extending beyond the boundary of the protected area. For communities, it provides an entry point to raise livelihood-related management issues with the protected area authorities. Furthermore, a failure to stem broad-scale loss and degradation of surrounding habitats could increase the likelihood of serious biodiversity declines (Lawrence et al., 2012). The recognition of the buffer zone may have major impacts on co-management options, and the likelihood of multi-level co-management success.

In Southeast Asia, both recognition and definitions of buffer zones are not consistent. Vietnam recognizes management of the buffer zone in Decree 117 (S.R. Viet Nam, 2010), and Prime Minister Decision 24 (S.R. Viet Nam, 2012) promotes the protected area authority to target distribution of funding into buffer zone villages, but the legislation is so new there is little experience. Lao P.D.R. introduced a peripheral impact zone for the management of the Nakai Nam Theun NPA (Lao P.D.R., 2010), a buffer zone where it spends US\$280,000 annually on community development activities. The Kingdom of Cambodia (2008) promotes a community zone. The Philippines (NIPAS, 1992) recognizes buffer zones and designates a multi-stakeholder Protected Area Management Board with management oversight over the buffer zone. Brunei, Indonesia, Malaysia, Myanmar and Thailand have comparatively older protected area legislation and omit reference to the buffer zone in their main national legislation on protected areas, which has a profound influence on the management approach.

DEFINING ESSENTIAL PROTECTED AREA MANAGEMENT TASKS

(a) Protected area management arrangements

Given their importance both to the science of protected area management and the success of multi-level co-management, it is important that the management arrangements for conducting the field activities in a

government-designated protected area are spelled out. The IUCN Report: *Protected Area Staff Training: Guidelines for Planning and Management* states that it is very difficult to name the “main” training themes needed by a modern protected area manager as they vary between different regions and countries (Kopylova & Danilina, 2011). However, the authors enumerated the major training packages, drawing from a broad range of sources, from which it is possible to define the units that might make up a management body for a government-designated protected area in a developing country. These are:

- Ecological monitoring and research section;
- Law enforcement section;
- Community outreach and awareness section;
- Community development (alternative livelihoods) section;
- Ecotourism section; and,
- Habitat management section.

Appleton et al. (2003) also developed a generic organizational structure for protected areas in Southeast Asia based upon competence standards, which were further modified in training documents (Appleton et al., 2011). The essential tasks comprise: (i) ecological research and monitoring, (ii) law enforcement, (iii) community outreach and awareness raising, (iv) community livelihoods development, (v) ecotourism, and (vi) habitat management (e.g. forest fire management and reforestation). In Southeast Asia, the organizational arrangements for a protected area authority are largely omitted from national protected area legislation. Vietnam is the only exception, describing the institutional organization and responsibilities of a protected area management board in Decision 117, although it lacks clarity on community engagement (S.R. Viet Nam, 2010).

(b) Protected area management working groups

Any protected area has comparatively few professional staff compared to the populace in the neighbouring buffer zone (Green & Paine, 1999; Rambaldi, 2000). To optimize constructive interactions with buffer zone communities, protected area staff need to be professional and organized, and also operate strategically, seeking allies and support amongst the local stakeholders.

Ideally, staff should identify key partners and formally structure their engagement through well-organized management agendas. This could be achieved by establishing protected area management working groups, which comprise the protected area staff in a particular



Bunaken National Park. Manado underwater, North Sulawesi, Indonesia © Jürgen Freund / WWF-Canon

specialized field of management, together with concerned local community representatives and concerned local government agencies. Although this has scarcely ever been actively promoted internationally, Kopylova & Danilina (2011) moot the establishment of protected area management working groups through:

- Establishing “Groups of Friends of PAs and how to organize their work”.
- “Creation of Public Councils and other co-management structures”.
- “Integrating local communities into ecotourism development at a PA” and “Interaction between a PA and tourist companies”.
- “Work with poachers”.

Within Southeast Asia, documented examples of functioning protected area working groups are rare. At Bunaken Marine National Park in Indonesia, co-management started with the development of constituency-based partnerships on different natural resources issues, and evolved to true co-management when the partnerships started working with each other (Erdman et al., 2004). In Mt Kitanglad Range Natural Park, the first and perhaps most successfully managed protected area in the Philippines, the key to success, according to the superintendent, was to change decision-

making from the national agency to the local level (La Viña et al., 2010). Involvement of a range of stakeholders (e.g. rangers, police and villagers from several villages) in joint patrol teams greatly decreased the likelihood of corruption, collusion or conflicts of interest in dealing with violations committed by friends and family members.

(c) Protected area management advisory committee

If a protected area agency engages with both core and buffer zone stakeholders, embracing a wide arrange of management issues involving working groups, it may be worth establishing a protected area management advisory committee, as a centralized think-tank, to define best approach management. Such committees should comprise senior representatives from the protected area, concerned government agencies and local communities, who meet regularly to guide coordination amongst stakeholders, monitor management and ideally monitor budget allocation and utilization. Internationally, supervisory co-management bodies and their role in protected area management have received increasing recognition (Borrini-Feyerabend et al., 2004a); including in Southeast Asia (Clifton, 2003; Erdman et al., 2004; Parr et al., 2007). It is interesting that Kopylova & Danilina (2011) describe two further training packages

Table 1: Organisations represented on three Vietnamese Protected Area Management Advisory Committees

Mu Cang Chai	Khau Ca	Trung Khanh
Protected Area Agency (Mu Cang Chai SHCA Management Board): Vice Director + 2 Heads of Sections (3)	Protected Area Agency (Khao Ca SHCA Management Board): Director and 1 staff (2)	Protected Area Agency (Cao Vit Gibbon SHCA Management Board): Director and 1 staff (2)
District People's Committee (1)	District People's Committee (1)	District Peoples Committee (1)
District Agriculture and Rural Development Office (1)	District Agriculture and Rural Development Office (1)	District Agriculture and Rural Development Office (1)
-	District Agriculture Extension (1)	District Agriculture Extension (1)
District Police Department (1)	-	-
District Office of Natural Resources and Environment (1)	District Office of Natural Resources and Environment (1)	District Office of Natural Resources and Environment (1)
District Judiciary Department (1)	-	Border Army Station (2)
Commune People's Committees: Che Tao, Pung Luong, Nam Khat, Xu Phinh, Loa Chai (5)	Commune People's Committees: Minh Son, Yen Dinh, Tung Ba (3)	Commune People's Committees: Ngoc Con, Ngoc Khe, Phong Nam (3)
Mu Cang Chai Youth Union (1)	-	-
Mu Cang Chai Farmers' Union (1)	-	-
-	-	Quay Son Watershed Protected Area (1)

which might also institutionally map the formation of supervisory co-management arrangements, and some key responsibilities. These tasks comply well with the priority tasks undertaken by a supervisory co-management body or management advisory committee. These comprise:

- **PA management:** e.g. (i) strategic planning and operational management of a PA; (ii) conflict management (iii) private sector and the PA; (iv) PA and governmental structures – ways of interaction; (v) cooperation with NGO sector; (vi) PA and local communities; (vii) work with cultural and religious leaders; (viii) participatory management; (ix) PA management in the face of global changes (including climate change)
- **Institutional setting and management plans:** e.g. (i) management planning and business planning; (ii) financial management; (iii) monitoring and evaluation of PA management effectiveness

EXISTING PROTECTED AREA CO-MANAGEMENT BODIES IN SOUTHEAST ASIA

In Southeast Asia, the Philippines provides an interesting and relatively advanced model of co-management, with designated protected area management boards: a model for protected area governance, according to Barber et al. (2004). In Lao P.D.R., Nakai Nam Theun National Protected Area is managed by multi-stakeholder Board of Directors, which meets twice a year to supervise co-management activities in the protected area. Thailand

has developed policy guidelines on establishing Protected Area Committees within its protected area system but these also tend to meet only once every six months. In Vietnam, Buffer Zone Management Committees are currently being proposed in a draft buffer zone circular, as means for the protected area agency to link into the local stakeholders.

In summary, key institutional bodies for protected area management comprise (i) the specialized field sections within the protected area agency, (ii) the protected area management working groups including those linked to existing administrative bodies (district, sub-district and village), and (iii) a landscape co-management body; this is multi-level co-management.

CASE STUDIES IN MAINLAND SOUTHEAST ASIA

(a) Establishing Management Advisory Committees

Mu Cang Chai SHCA, Yen Bai Province in northern Vietnam is a 20,293 ha protected area in a remote mountainous area, home to the only known viable population of the critically endangered Western Black Crested Gibbon (*Nomascus concolor fuvogaster*) in Vietnam. Since its discovery there in 1999, Fauna & Flora International (FFI) has been implementing activities to protect this population including supporting establishment of the protected area, which led to evolving a system for co-management of the area with local ethnic minority communities. Originally an institution called a Forest Protection Council was

established consisting of local representatives from communes around the protected area (Swan & O'Reilly, 2004). This Council had responsibility to advise the protected area agency (Management Board) and report to the local communities. However, the Council lacked an organized framework for operation (i.e. a set of regulations), lacked a structured agenda recognizing different fields of protected area management, and lacked a work plan. It consequently had limited success to operate as an effective co-management forum.

Simultaneously, FFI was also focused on protecting populations of two of the world's rarest primates in northern Vietnam following their rediscoveries a decade ago; the Tonkin snub-nosed monkey (*Rhinopithecus avunculus*) at Khau Ca, Ha Giang Province and the cao vit gibbon (*Nomascus nasutus*) in Trung Khanh District, Cao Bang Province on the border with China. Both these primate populations persist in tiny blocks of forest of less than 2,000 ha. The small size of the forest and the consequently limited numbers of people living in the so-called "buffer zones", meant that FFI staff and their government counterparts could get to know and work with surrounding communities and other stakeholders closely, and eventually species and habitat conservation areas (SHCAs) were formally established at both sites.

In 2011 FFI strengthened the formalized co-management arrangements within all these primate sites, through the establishment of Management Advisory Committees (MAC), bringing together representatives from local stakeholders into an organized forum at the protected area level to provide overall management direction to the reserve in question. An MAC comprises representatives from the Management Board (government protected area agency), local community representatives and other local concerned government agencies (see table 1 on previous page). Membership was purposely kept small to facilitate focused management discussions, and local civil society representation omitted in the early stages of their development, given local government management capacities. Importantly, the membership and functioning of a MAC was guided by the development of regulations establishing it and its mode of operation.

The regulations stipulate co-management covering a number of protected area management tasks as described by Kopylova and Danilina (2011), namely (i) boundary demarcation, (ii) wildlife monitoring, (iii) law enforcement, (iv) community outreach, (v) community development, (vi) ecotourism, (vii) natural resource management. They also cover (ix) zoning, (x) management planning, (xi) financial review and (xii)

annual reporting. Significantly, it also mandated the MACs to respond to climate change. It appeared imperative that these MACs link into the protected area management working groups in the different fields of protected area management, which in turn directly supervise day-to-day management of the reserves in question. This included law enforcement patrol groups (with monthly meetings), community outreach networks as well as commune level groups on community development.

The FFI Vietnam programme spent considerable time focusing on understanding the effective functioning of the Management Advisory Committees, and ensured these key elements were implemented to strengthen their operation. Key elements included (i) reviewing membership to involve only the most relevant stakeholders; (ii) facilitating meetings every three months to ensure MAC members were actively engaged and monitoring field implementation, rather than cursory participation through less regularly organized meetings; (iii) preparing the agendas so that they covered the important issues in each of the specialized fields of protected area management, so that quality time was enhanced; (iv) taking minutes of meetings which could be reviewed; and (v) preparing three monthly work plans (which may only be possible at small reserves). It was recognized that these Committees needed succinct summaries of achievement from the grassroots in the respective fields of protected area management. The FFI Vietnam Programme started to amalgamate data from the monthly law enforcement network meetings, the commune working group meetings, and constituency working groups (see below) to formulate the content of the three-monthly co-management meetings. The co-management learning process is still evolving.

b) Creating protected area management working groups

Some examples of protected area management working groups in mainland Southeast Asia are described below. Some, such as law enforcement networks involving interagency cooperation, are comparatively common, particularly in protected areas managed by conservation NGOs. Others, such as community outreach and conservation awareness networks, are scarce as a consequence of the limited expertise in this field of management.

(i) Community development working groups: At Mu Cang Chai SHCA, commune working groups were formally established in each of the five communes situated in the buffer zone to discuss community



The critically endangered Cao Vit Gibbon (*Nomascus nasutus*) which is restricted to a single increasing global population numbering just under 130 individuals in Trung Khanh Species and Habitat Conservation Area in Cao Bang Province, Northern Vietnam, and adjacent forest in Jingxi County, Guangxi Province, China. It has benefitted from strong collaborative management practices over the past 10 years © Zhao Chao, FFI

development issues through a District Regulation (S.R. Viet Nam, 2011). Membership of the commune working groups comprised representatives from the communes, the heads of the commune agencies and the respective village headmen. The commune working group regulation also linked the five communes institutionally with the Mu Cang Chai SHCA MAC. These working groups were mandated to communicate into the grassroots – the 22 ethnic villages in the buffer zone. Through a pilot project funded by the European Union, the Mu Cang Chai SHCA MAC was empowered to distribute five grants to alleviate poverty among villages in the buffer zone, through these commune working groups. The five grants were awarded based upon development proposals the communities themselves had written. In exchange, conservation agreements were signed between the five communities and the Mu Cang Chai SHCA MAC. Two grants supported improving animal husbandry skills, one supported women conserving traditional handicrafts, and two supported planting local fruit trees. This is the first time that forest

conservation and poverty alleviation have been linked in Vietnam through a legally recognized co-management body. The distribution of community development grants have also been initiated at Khau Ca SHCA and at Cao Vit Gibbon SHCA.

(ii) Livestock Working Group (a livelihood constituency working group): At the Cao Vit Gibbon SHCA, a key issue was the control of livestock grazing to reduce its impact on both the protected area and village forests. A Livestock Working Group was established to encourage self-learning. Fodder crops and silage were successfully introduced to these villages for cattle feed. A representative from this constituency working group was invited to join the Cao Vit Gibbon SHCA MAC and participate in three-monthly meetings.

(iii) Ecotourism associations (a specialized livelihood constituency working group): The establishment of government-initiated institutional bodies promoting sustainable community-based



Meeting to establish the Regulation for the formation and functioning of the Trung Khanh SHCA Management Advisory Committee © Nguyen The Cuong

ecotourism within protected areas is also rare in Southeast Asia, as it involves sharing tourism revenues equitably amongst multiple stakeholders. In 2008, the FFI Vietnam Programme initiated a pro-poor nature-based tourism project in Pu Luong Nature Reserve (PLNR), Thanh Hoa Province. A business model was developed that permitted more equitable and sustainable sharing of the tourism benefits between the key stakeholders – the local communities, PLNR Management Board, district authorities and tour operators. Local institutional capacity was recognized to be weak. The participation of local communities in tourism in PLNR was increased through negotiation of an ecotourism development plan involving all relevant stakeholders, which aimed to increase tourism numbers, increase local community participation in tourism management, and achieve a more equitable distribution of tourism revenues. The plan focused on investments in human resources and facility development which allowed communities greater opportunities to provide tourism services, and a community fund managed by the Women's Unions was set up to ensure that the poorest families benefited from tourism.

(v) Community outreach and conservation awareness working groups: Community outreach sections are very rare among protected areas in Southeast Asia, despite having extremely important roles, educating villagers, students and enforcement

personnel. At Nakai Nam Theun NPA, a Community Outreach and Conservation Awareness (COCA) Section was established in October 2008 with the appointment of three Watershed Management and Protection Authority (WMPA) staff. Their remit was to raise awareness with local stakeholders, including (i) village leaders, teachers and students; (ii) law enforcement personnel in different agencies and (iii) the general public. The WMPA staff were given vigorous training to engage local stakeholders. It was recommended that a COCA Working Group should be established to increase community outreach and conservation awareness. This Working Group comprised stakeholders from three groups: (i) all the COCA staff, (ii) district representatives from various government agencies, including education, forestry, police, army, Women's Union and the public relations office; all these staff had participated in the two training courses, and (iii) representatives from the local communities, including community leaders, three representatives from each commune, spiritual leaders and teachers. The WMPA developed a Conservation Education and Awareness Strategy in collaboration with this COCA Working Group, which was incorporated into the Nakai Nam Theun National Protected Area Management Plan (2010-2015). The small and highly specialized COCA Section underwent regular staff changes, which had knock-on impacts of recognizing a COCA Working Group by the WMPA, and it was never formally established and maintained.

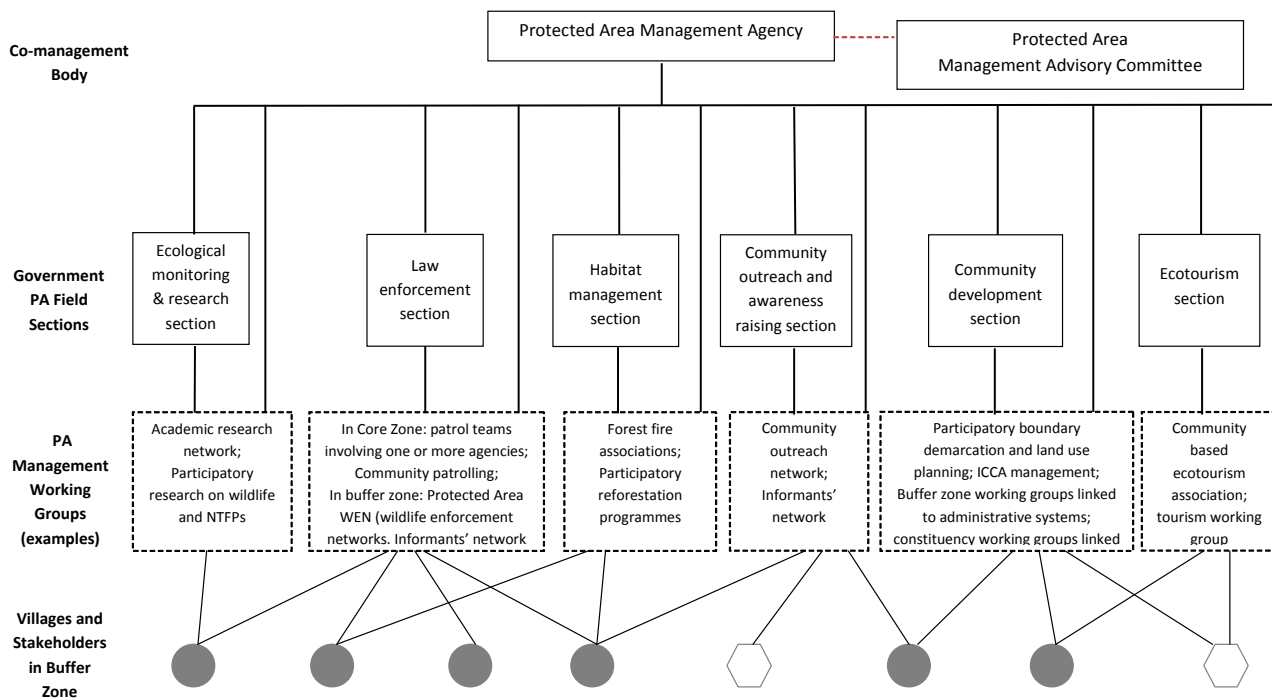


Figure 1. Generic Multi-level Co-management Arrangements for a Government – designated Protected Area in Southeast Asia

(v) Law enforcement working groups: A number of protected areas in Southeast Asia, and particularly those reserves which have received long-term technical support from conservation NGOs, have developed well-structured law enforcement systems; some systems involve partner collaboration, while others do not. Collaboration with enforcement agencies, including police, border police and army (who have stronger legal mandates, a mandate to carry firearms and more social clout), are often promoted. Participation of local villagers in community patrols is also promoted. Regular collection of law enforcement GIS data through the Management Information System (MIST) or SMART patrolling facilitates regular monthly law enforcement meetings to discuss patrolling data and lay out strategic plans for the forthcoming month. Collaboration on law enforcement inside reserves varies according to the availability of human resources within the conservation agencies, while in the buffer zone collaborative enforcement efforts are the norm. At Huai Kha Khaeng Wildlife Sanctuary in the Western Forest Complex, Thailand, intensive law enforcement is undertaken by 20 patrol teams comprising 200 rangers from the Department of National Parks and Wildlife Conservation. These patrol teams hold monthly law enforcement working group meetings to report on past patrolling efforts and prepare monthly strategic plans. Enforcement efforts in the buffer zone tend to be reactive, although the formation of a Huai Kha Khaeng W.S. Wildlife Enforcement Network (WEN) is under consideration. At Nam Et-Phou Loey NPA, in Houaphan Province, northern Lao P.D.R., eight

patrol teams have been established by the Wildlife Conservation Society comprising two forestry officials, two military officials and villagers. Two mobile patrol teams operate in Viengthong and Viengkham Districts in the buffer zone (T. Hansel, per comms). The FFI Vietnam Programme funds and provides ongoing technical supervision to 11 community patrol teams in their endangered primate sites. These teams comprise local Forest Protection Department staff together with local villagers; police occasionally join these patrols. Monthly law enforcement working group meetings are held to report patrolling activities and prepare monthly plans.

DISCUSSION

Lessons from three Management Advisory Committees in northern Vietnam

The case studies provide some insights as to how multi-level co-management systems could be implemented. They have required a lot of outside support and facilitation and it is still not clear how many will continue without this support. In the Vietnamese case studies, FFI has spent several years acting as an intermediary liaising between different stakeholders. The targeted primate sites were not ideal to innovate co-management, as the main constraint to promote co-management was the limited number of protected area staff within the protected area management boards. The Mu Cang Chai SHCA Management Board had only four permanent staff, while Khau Ca SHCA had only five part time staff. These low staffing levels precluded the staff themselves developing specialized fields of expertise in law

enforcement, community outreach and community development, and thence to branch out to engage the local communities in different fields of management. It consequently also placed greater onus on FFI to carry the co-management agenda forward.

Furthermore, the protected area framework in Vietnam precludes any resource use inside protected areas, which seriously limits the legal options for managing natural resources when negotiating with local communities who are all among the poorest rural villagers in Vietnam. At all three sites, resource use inside the protected areas was not such a contentious issue; at the Cao Vit Gibbon SHCA and Khau Ca SHCA there were very few valuable natural resources within the protected areas. Hence involvement of local communities in patrolling could be mooted and there was negligible resentment to restricting access to non-timber forest product utilization in these high-value biodiversity sites. At Mu Cang Chai SHCA, land-use planning exercises conducted in the 22 villagers in 2002 revealed that the forested lands in the buffer zone were sufficient to not warrant access to resources inside the reserve. Nevertheless, close engagement with local communities and other stakeholders meant that the co-management approaches largely evolved out of perceived necessity. Co-management was already taking place in the ground at all three sites, albeit unstructured.

The establishment and subsequent functioning of the three Management Advisory Committees at Mu Cang Chai SHCA, Khau Ca SHCA and the Cao Vit Gibbon SHCA shed some interesting light on the dynamics of structuring the stakeholder interactions. A number of strengths were recognized. The establishment of a regulation provided an invaluable framework for structuring stakeholder interactions and assisting management outcomes. The recognition of the different specialized fields of management seemed important to start generating more focused work programmes, which also required the protected area staff to be more selective in identifying their respective stakeholders. Meetings were held every three months, sufficiently often to ensure management oversight continuum. Well-structured agendas and work plans also assisted focused discussions. Efforts were made to make the meetings of the committees participatory. The Mu Cang Chai SHCA MAC distributed development grants - designed to mitigate threats - through the commune working groups to the buffer zone villagers. This multi-level co-management demonstrates an ICDP mechanism involving the supervisory co-management body, albeit at small scale, of short duration and with strong NGO guidance.

Weaknesses were also identified in the functioning on the Management Advisory Committees. These included having a membership dominated by government officials, and the Management Board staff - particularly the chairmen - lacking facilitation skills for balanced dialogue. Agendas and discussions at all three sites were heavily dependent upon the initiatives and funding streams delivered by the conservation NGO, FFI, as government budgeting for field activities was very modest.

Most recently, the opportunities in Vietnam have been opened for more innovative co-management approaches, although there is the risk that they have opened too much, allowing too much access to resources into protected areas, while protected areas managers still largely do not understand the biodiversity conservation role of their protected areas. Furthermore, where they do understand that goal, they often have too little capacity to conduct the most basic law enforcement. Co-management is a complex process, and requires protected area staff to diversify into completely new skills sets, primarily stakeholder facilitation, community outreach and awareness-raising and community development. It requires continued piloting at select sites in Vietnam and other countries in the region, committed long-term donor support and technical support from experts. It also requires recentralization of the protected area network under a protected area agency to generate institutional memory and technical support to complex landscape management. Piloting innovative co-management approaches would be more appropriately conducted in sites where long-term technical support from a committed NGO with the appropriate levels of technical expertise are assured, or sites without global significance for biodiversity where some level of failure would not pose such a risk to global biodiversity heritage.

The co-management approach has recently been endorsed in national legislation in Vietnam. On 8th February 2012, Prime Minister's Decision 07 promotes co-management of special use forests, watersheds and state forest enterprises, including the formation of committees. On 24th June 2012, Prime Minister's Decision 24 promotes the distribution of investments by Management Boards into buffer zones.

The necessity to establish management advisory committees at the landscape level

It seems entirely logical to establish a body of local stakeholders with different needs and different perspectives to provide management direction. A management advisory committee provides an institutional bridge between core zone stakeholders and



View of the Trung Khanh District, Cao Bang Province, Vietnam © John Parr

buffer zone stakeholders. A co-management committee can make itself informed of the biodiversity values, threats to these values, and the socio-economic demands of buffer zone villagers, and develop corresponding management responses. It thus has the unique ability to generate targeted development agendas directly linked to conservation outcomes; it therefore warrants further investigation.

Establishing and strengthening protected area management working groups

The concentration of management responsibility within the core zone, and the omission of the buffer zone from the management jurisdiction of the protected area agency, have inadvertently hampered the development of protected area management working groups in many developing countries. Community outreach, conservation awareness and community development agendas have consequently been omitted from management activities for many protected area agencies. Yet, the development of management task forces, building on the existing administrative hierarchy at district, sub-district and village level, provides a potentially strong multi-level

governance arrangement for one key pillar of landscape protected area management - community engagement in the buffer zone.

Interestingly, it is the second pillar of landscape protected area management – law enforcement – which gives us the best management template for effective protected area management. Law enforcement sections in selected protected areas facilitate interagency cooperation through regular monthly meetings with precise agendas to report and plan law enforcement activities using GIS-based patrolling data. By the same token, it may be relatively easy to organize formal district level buffer zone working groups, sub-district working groups and village committees to hold monthly meetings with precise agendas for reporting and planning buffer zone management activities.

The best opportunities to experiment with developing protected area working groups is at sites with long-term technical support from international and national conservation NGOs. However, the professionals within the NGOs may need to be mindful as to whether they are



Commune livelihood interest working group © Nguyen The Cuong

inadvertently taking on a management leadership role, substituting themselves for the coordinating role of co-management committee and/or the management working groups, and undermining both the formation and operation of these institutional bodies. What is not documented is whether this management replacement factor has played a role in buffer zone management and integrated conservation and development initiatives, and the many reported failures, particularly when it should be the conservation staff – with negligible community development skills sets – playing a prominent role in the buffer zone engagement process.

Required institutional arrangements of protected area agencies for co-management

Internationally, the institutional arrangements for a management authority of a government-designated protected area have rarely been discussed (Parr, 2006). Compartmentalization of protected area management tasks is vitally important for effective multi-level co-management for three reasons. Firstly, it allows the protected area staff to have focused professional responsibilities, with technical skills sets which are respected by local stakeholders. Secondly, in sites supported by conservation and/or development NGOs, it permits them to identify clearly their protected area government counterparts for targeting technical and funding support. Thirdly, it permits the conservation NGOs to be more amenable to accepting community development interventions as incremental investments in protected areas, rather than conflicting funding

streams. The protected area management staffing arrangements have a profound impact on the working relationship with the buffer zone communities, and other concerned stakeholders, and thence the degree to which co-management is likely to succeed.

Unfortunately, protected area agencies are being given little advice on staffing arrangements, which has clear implications for successful biodiversity conservation. Even the assessment form of the World Bank METT tracking tool (World Bank, 2007) does not segregate its questions into (i) supporting management documents; (ii) administrative management issues and (iii) field management actions, which would assist both conservation agencies and conservation organizations to reflect on whether the protected area arrangements are optimally arranged for effective management of reserves.

Effectiveness of Multi-level Co-management

Multi-level co-management makes the relationship between core zones and buffer zones, and thence conservation and development, much clearer. It provides a forum and mechanism for working out conflicting conservation and development agendas. Moreover it compartmentalizes protected area activities, so in pilot co-management sites involving NGOs, some activities may be prioritized by the conservation NGOs, while others are prioritized by development NGOs, or local government. The multi-level co-management approach - which optimizes stakeholder engagement – should introduce community development interventions, at no loss to the biodiversity agenda, both technically and financially.

We might therefore expect multi-level co-management to assist in the abatement of habitat disruption, hunting and forest-product exploitation. It should also strengthen the formation and functioning of informants' networks and assist in human-wildlife conflict mitigation, forest fire management and climate change adaptation. It will not divert conservation expertise and conservation funding, but will substantially enhance funding coming to protected areas and conservation outcomes.

CONCLUSIONS

A multi-stakeholder landscape management advisory committee can give unified management direction to both the core and buffer zones of a protected area. The effective operation of the multi-stakeholder management committee is entirely dependent upon the institutional arrangements established and maintained at lower levels, in the different specialized fields of management. The law enforcement management networks in this paper provide the clearest practical field examples as to how

effective protected area management should proceed. The protected area agencies need to appoint community development experts to organize the hierarchy of institutional bodies at the different administrative levels for effective buffer zone engagement, and develop their management agendas parallel to those implemented for law enforcement.

This paper introduces a new tier of institutional bodies into protected area management which provides opportunities to link senior reserve management to villages and individual households in buffer zones. The multi-level co-management framework (see figure 1) provides institutional bridges between the conservation and community development agendas, for the long-term sustainable management of protected areas and their buffer zones. The framework provides an institutional roadmap as to how multi-level co-management might develop more effectively, compartmentalizing areas of protected area work. However, the authors stress that multi-level co-management of protected areas is no quick fix conservation strategy, but should be considered a 10-15 year learning process of stakeholder engagement, with further exploration of the establishment of protected area management working groups, and their functioning.

Superficially, multi-level co-management appears a highly complex network of human interactions, particularly when one compares the approach to the fortress approach. But the lessons from law enforcement management in the region indicates that multi-level co-management may work if (i) we recognize the importance of the different of the fields of protected area specialization, (ii) organize and train protected area staff in these different specialized fields, and then (iii) assist them to interact with local stakeholders in a well-structured, formalized manner through protected area management working group and constituency working groups; and then get them (iv) to report their achievements, proposed work plans and hardships to regular monthly meetings, (v) from which distilled, succinct summaries are provided to a supervisory management advisory committee.

RECOMMENDATIONS

Recommendations for conservation organizations

Conservation organizations with long-term commitments to particular sites should actively explore opportunities to pilot protected area management working groups. Having long-term commitments to sites presents a number of advantages. Relations with relevant

stakeholders in the landscape should be well-established, the organization can commit itself to long-term technical and financial support, multi-stakeholder facilitation can be maintained, and resources may be available to support local communities. These working groups can be strengthened by developing regulations and work plans to enhance their recognition and their strategic direction.

However, sometimes outside conservation organizations with long-term commitments to sites get too intimately involved in the management of the protected areas that they are involved with. While this personalized approach helps the protected areas in the short-term, it fails to contribute to the protected area learning process for effective management within the national protected area network. From the outset, it should be made clear that the conservation organization is facilitating a process and that as capacity is built, tasks are handed over to the respective agencies and personnel.

Given the compartmentalization of protected area management tasks, conservation NGOs could consider working in partnership with development NGOs to benefit from the complementary skills and experiences these types of organizations could bring. The conservation organization could support the core zone and the development organization could support the buffer zone. Agreement could be reached by the respective NGOs on the protected area management working groups to be supported, to optimize constructive cooperation. A network of best practice co-managed protected areas could be mooted by the NGO bodies within their respective NGO networks.

Recommendations for government protected area agencies

Government agencies should consider the value of establishing protected area working groups in connection to the management of their protected areas. This may require piloting funding long-term, modest scale, buffer zone management interventions (integrated conservation and development initiatives) in pilot sites. It should be noted that the buffer zone working groups – possibly one of the key institutional engines for promoting multi-level co-management - are usually already functioning under existing government administrative arrangements; all they need is the institutional connection established to the protected areas, supported by conservation-linked funding streams.



A village level stewardship agreement is displayed in a village in the buffer zone of Mu Cang Chai Species and Habitat Conservation Area © Hoang Van Lam

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RESUMEN

Existe un amplio consenso en torno a que los paisajes ecológico-sociales para las áreas protegidas designadas por el gobierno deben abarcar las zonas núcleo y sus zonas de amortiguamiento, y que las tareas esenciales para la gestión de estos paisajes deben incluir: (i) investigación ecológica y monitoreo; (ii) aplicación de la ley; (iii) divulgación y sensibilización a nivel de las comunidades; (iv) desarrollo de los medios de subsistencia de las comunidades e intervenciones en las tierras gestionadas por ellas; (v) ecoturismo; y (vi) gestión del hábitat. En este trabajo se propone que estas tareas no deben necesariamente ser realizadas únicamente por el organismo encargado de las áreas protegidas. Más bien, se recomienda explorar la posibilidad de establecer grupos de trabajo para la gestión de áreas protegidas en los diferentes ámbitos de la gestión para propiciar la creación de vínculos institucionales entre las comunidades de base, otros interesados locales y un comité de cogestión de áreas protegidas. El documento se basa en las experiencias de los autores y describe brevemente algunos modelos de este tipo de redes locales que ya están siendo implementados en el norte de Vietnam y Laos para las áreas protegidas con un alto valor de biodiversidad. Si bien muchos de los enfoques descritos son de muy reciente data para obtener pruebas concluyentes acerca de su eficacia, su implementación demuestra que es posible generar interés local para enfoques innovadores basados en la cogestión.

RÉSUMÉ

Il est communément admis que les paysages écologiques-sociaux pour les aires protégées désignées par les gouvernements doivent comprendre des aires centrales et des zones tampon aux alentours, et que les tâches essentielles pour gérer ces paysages doivent comprendre : (i) une recherche et un suivi écologique ; (ii) une application de la loi ; (iii) des activités de sensibilisation et de prise de conscience auprès des communautés ; (iv) l'amélioration des moyens de subsistance des communautés et l'engagement avec les terres gérées communautaires ; (v) l'écotourisme ; et (vi) la gestion de l'habitat. Cet article propose que ces tâches ne soient pas nécessairement et uniquement réalisées par l'agence en charge de l'aire protégée. L'article recommande au contraire de réfléchir à des groupes de travail sur la gestion des aires protégées dans les différents domaines de gestion, moyennant quoi ces réseaux créent des liens institutionnels entre les communautés sur le terrain, d'autres acteurs locaux, et un comité de co-gestion d'aire protégée. Cet article s'appuie sur l'expérience de l'auteur et décrit brièvement des modèles de tels réseaux locaux déjà mis en place dans le nord du Vietnam et au Laos, pour les aires protégées abritant une biodiversité à forte valeur. De nombreuses approches décrites sont encore trop récentes pour tirer des conclusions qui prouveraient indéniablement leur efficacité, cependant leur mise en œuvre montre qu'il est encore possible de susciter un intérêt local pour des approches innovantes dans le domaine de la co-gestion.