

A review of lessons learned from a Local Conservation Group approach in Indochina

JOHN D. PILGRIM, KARIN EBERHARDT, JONATHAN C. EAMES, BOU VORSAK
and PHAM TUAN ANH

Abstract Building local civil society constituencies for conservation is a particularly high priority in Indochina given the regional prevalence of weak and highly-centralized government institutions with an inability or lack of will to enforce protection on the ground. BirdLife International has developed and piloted a small-scale, community-based Local Conservation Group approach to site-based conservation globally. In Indochina a number of important lessons have been learned, particularly related to the need for participatory project and activity planning, increased attention to provision of tangible benefits that clearly meet both conservation and development objectives and are tailored to heterogeneous communities, increased support for awareness-raising activities, clear monitoring of activities and impacts, and truly committed partner support for implementation.

Keywords Biodiversity conservation, CBNRM, community-based natural resource management, Indochina, Local Conservation Groups

Introduction

Humans and human activity constitute the greatest threat to biodiversity, and successful biodiversity conservation depends directly on successful management of people. Thus, preservationist approaches to conservation have progressively incorporated participation of local communities (Dearden et al., 2006). This momentum accelerated with the introduction of Integrated Conservation and Development Projects (ICDPs). Early ICDPs had the primary goal of biodiversity conservation, with local development components as a tool for that goal, but later diversified around a core theme of sustainable development (Hughes & Flintan, 2001). Despite few quantitative assessments of their outputs (Linkie et al., 2008; Gubbi et al., 2009) and arguments that their diverse approaches should

not be quickly dismissed after a few failures (Hughes & Flintan, 2001), ICDPs were seen by many conservationists as failing to make strong links between often short-term investments in community development and often long-term conservation objectives, relying on high levels of external funding and technical assistance, and largely failing to demonstrate conservation impacts (Kremen et al., 1994; Oates, 1999; Sage & Nguyen Cu, 2001).

It is now generally acknowledged that strict protection and conservation through development both have useful elements, are rarely mutually exclusive, and are each more or less suited to differing local contexts (Sunderland et al., 2008). Some lessons have been learned from ICDP failures, and there is increased focus on less ambitious, smaller scale, longer-term, and more community-based or community-driven efforts.

One of the most widespread programmes of site-based conservation involving local communities has been the Local Conservation Group (also known as Site Support Group in Africa and Caretaker Group in Europe) approach developed by BirdLife International to support site-based action at Important Bird Areas (IBAs; BirdLife International, 2006c). Although the term local conservation group is in widespread usage, here Local Conservation Group refers solely to groups established, guided or supported by the BirdLife partnership. BirdLife views these as 'groups of local stakeholders who share a common commitment to the conservation of an IBA' (BirdLife International, 2007), although this definition has been refined in Africa to 'an independent and organized group of voluntary individuals that work to promote conservation and sustainable development at IBAs and other biodiversity sites, in partnership with relevant stakeholders' (BirdLife International African Partnership, 2004). There are no strict governance criteria for Local Conservation Groups but members are typically volunteers motivated by the economic, cultural, religious, recreational or livelihood-supporting values of the site and its resources. The first Local Conservation Group was established in 1989 and the approach has since been taken up rapidly in Europe, Africa and Indochina. By March 2010, 198 Local Conservation Groups had been established at 119 IBAs in 21 African countries (Hazell Thompson, pers. comm. 2010).

The five main functions of Local Conservation Groups are seen as on-the-ground conservation, education and awareness-raising, monitoring, improving community livelihoods, and linking the wider local community, the

JOHN D. PILGRIM (Corresponding author)* JONATHAN C. EAMES and PHAM TUAN ANH BirdLife International in Indochina, Ba Dinh, Hanoi, Vietnam, Vietnam. E-mail astrapia@gmail.com

KARIN EBERHARDT Yangon, Myanmar

BOU VORSAK, BirdLife International–Cambodia Programme, Phnom Penh, Cambodia

*Current address: 41 Wellsfield, Rayleigh, Essex, United Kingdom

Received 30 March 2010. Revision requested 20 July 2010.

Accepted 26 August 2010. First published online 25 May 2011.

government and site management authorities (BirdLife International, 2007; Ngari, 2007). Individual Group aims vary with regard to, and may exclude some of, these overall functions, reflecting differing circumstances and the need for site-specific strategies.

In Indochina BirdLife has developed most Local Conservation Groups at IBAs without formal protected status where at least some local stakeholders share conservation objectives. Since 2002, 40 Groups have been developed, with 16 now defunct primarily owing to discontinued financial and/or technical support (Table 1). Many Groups in Indochina contain two subgroups, one patrolling/monitoring and one raising awareness. BirdLife has supported Groups with technical advice, training, capacity building, brokering of relationships, equipment, resources and payment of small per diems for field monitoring and patrolling trips. Direct payment of per diems marks out Local Conservation Groups in Indochina from more voluntary Groups elsewhere.

Membership of Local Conservation Groups in Indochina is 5–30 individuals, with significant variations in composition (Table 1). A spectrum exists from Groups composed entirely or largely of local government officials at many Cambodian sites, with one to two Groups per site where threats are mainly external, to Groups composed entirely of local community members (especially reformed hunters) in Myanmar, with each Group based on one village or cluster of hamlets, where most threats stem from local communities.

Assessing Local Conservation Groups in Indochina

Unfortunately, a major flaw of Local Conservation Groups in Indochina has been the lack of monitoring of their outputs, let alone impacts, and so it is difficult to measure success or otherwise. This is not an issue solely related to Local Conservation Groups in Asia (Timberlake & Fenton, 2003), or to other Local Conservation Groups (Kremen et al., 1994; Millennium Ecosystem Assessment, 2005), but is a disappointing omission given the severe criticisms levelled at ICDPs for the same oversight. Nonetheless, a number of unpublished evaluations have tried to qualitatively assess Local Conservation Group projects in Indochina (BirdLife International–Vietnam Programme, 2003, 2004; BirdLife International in Indochina, 2006, 2007a, 2007b; Wilkinson & Nguyen Thanh Van, 2006; BirdLife International, 2006b; BirdLife International Asia Division, 2007; BirdLife International–Cambodia Programme, 2007; Darwin Initiative, 2007; Eames et al., 2007; Eberhardt et al., 2007). Here, we draw on these project documents and our collective experience to distil and review factors that have affected success of Local Conservation Groups in their five key functions, illustrated by qualitative examples of success and failure. The nature of project documents, and weak documentation and monitoring during projects, necessitate a qualitative rather than quantitative review. Nonetheless,

this analysis provides an understanding of the factors that can help improve design and implementation of future site-based conservation involving local communities.

On-the-ground conservation

Ngari (2007) frames this function in terms of reclamation and restoration of degraded habitats. On-the-ground conservation in Indochina has more often taken the form of site patrolling by Local Conservation Groups to detect, deter and remove destructive local practices and external threats. The relative success of such patrolling and enforcement activities in Indochina appears to have been influenced by two main factors, one internal to the design and implementation of Local Conservation Groups, and one external. Firstly, Local Conservation Groups that have included relevant and sufficiently senior local government staff on patrols have both the legal authority to immediately apprehend people conducting illegal activities and the perceived authority to remove illegal equipment (e.g. snares). Secondly, Local Conservation Groups have had some success at slowing locally-caused threats but have had limited ability to combat threats stemming from provincial- or national-level decisions (such as land-use change policies or infrastructure development) or government/army corruption.

In Cambodia Local Conservation Groups with a strong contingent of government staff have apprehended a number of people carrying out illegal activities such as land grabbing, land encroachment, burning of grassland to harvest wildlife, cutting of inundated forest, use of illegal fishing gear and bird hunting. A large quantity of illegal equipment has been confiscated and destroyed and some wildlife confiscated and released (Table 2). In all cases, it appears that these illegal activities have been consequently reduced or halted (BirdLife International in Indochina, 2006, 2007a). Impacts on biodiversity are hard to measure but enforcement of minimum mesh sizes on fishing nets by Local Conservation Groups at Boeung Prek Lapouv is perceived by local fishermen to have increased catch sizes (BirdLife International in Indochina, 2006, 2007a). Conversely, in Vietnam, Local Conservation Groups that have not included relevant, or sufficiently senior, local government staff have been unable to detain people conducting illegal activities, and have often feared retribution for removing illegal equipment (BirdLife International in Indochina 2007b).

In Western Siem Pang, Cambodia, training by the Local Conservation Group has led to establishment of *trapaeng* (seasonal pool) best practice management protocols. These are reported to have led to a perceived reduction in the number of reported illegal activities and halting of bird hunting at target *trapaengs* (BirdLife International–Cambodia Programme, 2007). Despite such successes, at some sites the most significant threats, such as conversion of land to dry season rice cultivation in Cambodia, have had

TABLE 1 Important Bird Areas (IBAs) with Local Conservation Groups in Cambodia, Myanmar and Vietnam, with their initial protected status (if any), the maximum number of Groups that existed (different numbers of Groups existed at various times at some sites), composition of patrolling subgroups, main threats to the site, dates when the Groups functioned, and relevant references.

Important Bird Area (by country)	Initial protected status	Max. no. of Groups	Composition of patrolling subgroups	Main threats	Functional dates	References
Cambodia						
Boeung Prek Lapouv (Takeo province)	Proposed conservation area	1	Officials	Land speculation, seasonal incursions, invasive species (all mostly externally driven)	2003–present	BirdLife International in Indochina (2007a)
Kampong Trach (Kampot province)	None	1	Officials, boat driver	Land speculation (mostly externally driven)	2004–present	BirdLife International in Indochina (2007a)
Preah Net Preah/Kra Lanh/Pourk (Banteay Meanchey & Siem Reap provinces)	None	2	Officials	Large-scale agricultural expansion (mostly externally driven)	2004–2005	BirdLife International in Indochina (2007a)
Sekong River (Stung Treng province)	None	1	Mainly officials	Agricultural expansion (mostly locally driven), seasonal overexploitation (mostly externally driven)	2004–2006	BirdLife International in Indochina (2006)
Stung/Chi Kreng/Kampong Svay (Siem Reap province)	None	1	Officials	Large-scale agricultural expansion (mostly externally driven)	2004–2006	BirdLife International in Indochina (2007a)
Stung Sen/Santuk/Baray (Kampong Thom province)	Largely unprotected	3	Officials, former hunters, farmers	Large-scale agricultural expansion (mostly externally driven), overexploitation (mostly locally driven)	2002–2003	BirdLife International–Vietnam Programme (2003)
Upper Stung Sen Catchment (Preah Vihear province)	Largely wildlife sanctuary	1	Villagers, officials	Agricultural expansion (mostly locally driven)	2002–2003	BirdLife International–Vietnam Programme (2003)
Western Siem Pang (Stung Treng province)	None	1	Officials, former hunters	Infrastructure development & large-scale agricultural expansion (both mostly externally driven), overexploitation (mostly locally driven)	2004–present	BirdLife International in Indochina (2006), BirdLife International–Cambodia Programme (2007)

TABLE 1 (Continued)

Important Bird Area (by country)	Initial protected status	Max. no. of Groups	Composition of patrolling subgroups	Main threats	Functional dates	References
Myanmar						
Natmataung National Park (Chin state)	National park	16	Villagers	Agricultural expansion & overexploitation (both mostly locally driven)	2005–present	Eames et al. (2007), Eberhardt et al. (2007)
Vietnam						
Che Tao (Son La province)	None	1	Villagers, officials	Overexploitation & agricultural expansion (both mostly locally driven)	2003	BirdLife International– Vietnam Programme (2003)
Dakrong (Quang Tri province)	Nature reserve	2	Officials	Overexploitation & agricultural expansion (both mostly locally driven)	2004–present	BirdLife International in Indochina (2006, 2007b)
Ha Nam (Quang Ninh province)	None	1	Officials, fishermen, farmers	Aquacultural expansion & overexploitation (both mostly locally driven)	2002–2003	BirdLife International– Vietnam Programme (2003)
Khe Net (Quang Binh province)	Proposed nature reserve	2	Officials	Overexploitation (mostly locally driven)	2004–2006	BirdLife International in Indochina (2006)
Tien Hai (Thai Binh province)	Nature reserve	1	Officials, villagers	Aquacultural expansion & overexploitation (both mostly locally driven)	2006–2007	BirdLife International Asia Division (2007)
Truong Son (Quang Binh province)	None	3	Mainly former hunters	Infrastructure development & overexploitation (both mostly externally driven)	2005–2006	BirdLife International in Indochina (2006)
Truong Son (Quang Tri province)	None	2	Officials, farmers	Infrastructure development & overexploitation (both mostly externally driven)	2004–present	BirdLife International in Indochina (2006, 2007b)
Xuan Thuy (Nam Dinh province)	National park	1	Farmers, former hunters, officials	Overexploitation & aquacultural expansion (both mostly locally driven)	2003–present	BirdLife International– Vietnam Programme (2004)

TABLE 2 Example patrolling and law enforcement results from the operation of Local Conservation Groups in two wetland sites (Table 1) in Cambodia (BirdLife, unpubl. data).

	Boeung Prek Lapouv (2005–2009)	Kampong Trach (2006–2009)
No. of people conducting illegal activities that were given warnings & education about relevant laws	193	45
No. of serious offenders arrested & sent to court	17	0
No. of incidents of land encroachment stopped	4	5
No. of incidents of illegal drainage stopped	0	1
Km of illegal fishing nets confiscated	162	0
No. of illegal bird traps confiscated	20	35
No. of trapped birds confiscated & released	>350	79

a level of official sanction and the Local Conservation Group alone has thus not had the authority or capacity to respond (BirdLife International in Indochina, 2007a).

Education and awareness-raising

All Local Conservation Groups established in Indochina have carried out some education and awareness-raising but these activities have often fallen far short of their full potential (BirdLife International in Indochina, 2006, 2007b). In most cases, often owing to a lack of relevant internal staff capacity, BirdLife has not provided substantial support or training. Rather than participatory, locally-relevant approaches, awareness-raising led by Local Conservation Groups has thus often been limited to top-down explanation of existing laws and regulations. This may be useful in areas with transient human populations (such as Boeung Prek Lapouv, where many threats originate from seasonal migrants) but is probably less effective at fostering a commitment to conservation objectives and behaviours among resident communities. Awareness activities to date have undoubtedly been better received when relating to issues that impose clear benefits or costs on local communities, such as external developments that threaten both livelihoods and biodiversity.

One popular top-down attempt to raise awareness in Vietnam has involved development of conservation agreements, which the Local Conservation Group and relevant local authorities sign with any local households and people found during Local Conservation Group patrols to be breaching regulations. These agreements state local rights to access forest resources and responsibilities not to hunt wildlife, extract timber for sale or engage in other unsustainable activities. Although large numbers of such agreements have been signed, their actual impact remains unclear and may be limited (BirdLife International in Indochina, 2006, 2007b). Conversely, a more successful and bottom-up approach to awareness-raising by a Local Conservation Group, where external development pressures would restrict forest use by local people in Western Siem Pang, has facilitated

local support for Protected Forest establishment (BirdLife International–Cambodia Programme, 2007).

Monitoring

Experience with monitoring activities by Local Conservation Groups in Indochina has supported assessments elsewhere (Timberlake & Fenton, 2003; Hughes, 2005) that such monitoring can provide baseline information, early warning of threats and a valuable focus for patrol activities by the Groups but are not sufficiently standardized, consistent in space and time, and do not have sufficiently large sample sizes to reveal trends in either biodiversity or threats without intensive and sustained inputs from partner organizations. In the long-term Local Conservation Groups are only likely to retain interest in monitoring if they have the capacity to analyse the data collected, which few community groups do, and if monitoring results are relevant to a Group's priorities (Wilkinson & Nguyen Thanh Van, 2006). Simpler methods of monitoring (BirdLife International, 2006a, 2007) could increase the ability of Local Conservation Groups to provide meaningful data, if supervised or facilitated by partner organizations (Danielsen et al., 2008).

The greatest potential for species monitoring by Local Conservation Groups in Indochina is in Cambodia where wetland birds and vultures are a conservation priority. These species are often large-bodied, relatively easy to identify and concentrated in small areas, and illegal activities are more easily detected in wetlands than forests. Nonetheless, intermittent training and oversight of such monitoring, combined with low capacity for keeping written records, has resulted in a lack of systematic data collection on illegal activities and data on biodiversity that are generally of insufficient accuracy to detect population changes (BirdLife International–Cambodia Programme, 2007; BirdLife International in Indochina, 2007a). Vulture monitoring has been the most successful. Standardized data have been collected on three species at six sites for > 3 years through a collaborating network of Local Conservation Groups, international NGOs and government officials. Local

staff are now largely able to run this process without technical support.

Improving community livelihoods

The focus of Local Conservation Groups in Indochina has been biodiversity conservation but many have also been involved in livelihood-improvement activities to compensate for restrictions on traditional resource use or to provide incentives for participating in Group activities. However, many of these livelihood activities appear to have had similar failings to those of ICDPs by not stemming from a participatory approach, not seeking like-for-like substitutions of activities, poorly linking conservation and development, being led by an organization with limited development expertise, and not being given the sustained commitment necessary to achieve results.

For example, in return for running anti-poaching patrols, 14 villages around Natmataung National Park, Myanmar, received development inputs from BirdLife, CARE and the UN Development Programme, including bridges, schools, school equipment, agricultural extension and health extension (Eames et al., 2007; Eberhardt et al., 2007). However, such benefits were often given once only and thus did not guarantee conservation for any future period (Darwin Initiative, 2007; Eames et al., 2007; BirdLife International in Indochina, 2007a), and it was rarely possible to ensure development assistance was contingent on conservation activities, partly because the agencies responsible were insufficiently coordinated or not equally committed to conservation objectives (Eberhardt et al., 2007).

Around Truong Son and Dakrong IBAs in Vietnam attempts to improve community livelihoods have been initiated without suitably participatory socio-economic assessments, leading to an inability to target the most forest-dependent communities and households and the failure of attempts to implement environmentally sustainable but economically non-viable activities. A lack of participatory decision-making has also sometimes led to differing expectations of, and thus conflicts over, benefits, damaging the crucial relationship between Local Conservation Groups and their partner NGO (BirdLife International in Indochina, 2007b). Worse, some requests for livelihood activities from local people have been taken up without assessment of environmental impacts. For example, provision of non-native *Acacia* seedlings has led to clearing of areas of natural forest in Dakrong IBA (BirdLife International in Indochina, 2007b).

Linking the wider local community, the government and site-management authorities

The key lesson learned here is that even small achievements are significant in Indochina, where civil society often has little or no formal role in government decision-making and

local authorities have low accountability to poor rural populations, particularly indigenous peoples. The prestige (i.e. social capital) of being in a Local Conservation Group, including uniforms for patrolling and the ability to meet with government staff, is a key benefit mentioned by local people in Indochina. Such steps are small but are considerable milestones towards control over resources in a region where decision-making is so centralized. A key factor influencing success of linkages between local communities and authorities has been their level of overlap in interests.

Local and provincial authorities responsible for enforcement have often voiced their support for, and stressed the value to them of, monitoring of illegal activities by Local Conservation Groups (BirdLife International in Indochina, 2006, 2007a, 2007b). A notable example of linkage to government authorities in Vietnam occurred when a Local Conservation Group reported to district authorities that a new road was being illegally constructed east of Khe Net IBA. Work on the road was halted by provincial authorities (BirdLife International in Indochina, 2006). Likewise, reports of illegal logging by Huong Hoa and Kim Hoa Local Conservation Groups led local authorities to confiscate vehicles and illegally-cut timber (BirdLife International in Indochina, 2006).

However responsive local authorities in Vietnam have sometimes been to threats from illegal logging or infrastructure they have, despite their remit to do so, had limited interest in combating illegal hunting. Conversely, local communities have often been more concerned about illegal hunting than logging, as this more directly affects resources they are allowed to exploit (BirdLife International in Indochina, 2006, 2007b).

Local Conservation Groups have played an important role in designing, gathering information for, and raising local support for provincial- and national-level conservation designation for sites. For example, in Cambodia, Local Conservation Groups north of Tonle Sap have raised awareness of the threat to both biodiversity and local livelihoods from land grabbing, and thus fostered support for a new category of conservation designation (Integrated Farming and Biodiversity Areas), which preserves traditional farming methods compatible with biodiversity conservation, and ultimately resulted in the conservation designation of Boeung Prek Lapouv (BirdLife International–Cambodia Programme, 2007; BirdLife International in Indochina, 2007a).

External factors constraining effectiveness

As documented for community-based approaches in other regions, external factors constraining the effectiveness of Local Conservation Groups in Indochina include lack of security of land tenure (Dudley, 2004) and lack of legal rights for local communities to use natural resources

(Ngari, 2007). In particular, the general lack of secure land or resource-use tenure in Indochina is not conducive to promoting sustainable resource use. This is exacerbated by prevailing government attitudes across the region, particularly in Laos, Vietnam and Myanmar, that natural resource stewardship is a state, not local community, responsibility. An additional constraint in the region is governments that are at best suspicious of, and at worst oppressive of, civil society organizing activities, and reluctant to enable civil society participation in policy creation and implementation.

Internal factors critical for effectiveness

In Indochina variations in design and implementation have most affected the relative success of Local Conservation Groups. Positive factors for implementation of these Groups and other community-based approaches have been documented elsewhere but were often overlooked during day-to-day support of Local Conservation Groups by partner NGOs, including ensuring the Groups had a clear and respected leadership (Timberlake & Fenton, 2003; Kimani, 2004; Ngari, 2007), were built around a small core of active individuals but had broader stakeholder representation (Timberlake & Fenton, 2003; Zeba, 2004), had a clear focus (Timberlake & Fenton, 2003), had realistic expectations (Ostrom, 1999; Kimani, 2004; Ngari, 2007), were given sufficient resources including a good information base (Kimani, 2004) and training (Mehta & Heinen, 2001; Kimani, 2004), were trusted to participate in decision-making (Ostrom, 1999; Kimani, 2004) and had a long-term relationship with partner NGOs (Mehta & Heinen, 2001). Timberlake & Fenton (2003), however, cautioned against allowing this to develop into a dependency. Failure to incorporate many of these positive influences led to difficulties in implementation of Local Conservation Groups in Indochina. The following seven key lessons have been drawn from the successes and failures of the Local Conservation Group experience in Indochina:

(1) Flexibility to tailor Group membership to the specific threats to conservation and the social and economic context of a site is critical. If the threat is external, higher level government officials and authorities must be involved in education and enforcement. If the threat is local, villagers must form the basis of Local Conservation Groups, with support from relevant government agencies. A top-down approach, focusing on enforcement through local officials, has probably been the most effective method at sites mainly experiencing externally driven threats. An issue to address is motivation, as many local officials that join Local Conservation Groups do so not as volunteers but on the orders of their superiors.

(2) The benefit of participation in a Local Conservation Group must outweigh the costs, whether for local communities or officials. Because local communities in the developing world often cannot afford to volunteer their time

for conservation activities, tangible benefits, whether financial, in-kind, natural resource, land tenure, status, or compliance with regulations, have widely been recognized as key to community participation, and not just in Local Conservation Groups (Newmark et al., 1993; Ostrom, 1999; Mehta & Heinen, 2001; Timberlake & Fenton, 2003; Ngari, 2007). The benefits and costs to communities and officials who participate in a Local Conservation Group should be transparent during the negotiation process. Key to success is also ensuring widespread benefits without conflict (Kimani, 2004; Agrawal & Chhatre, 2006).

(3) Viable livelihood alternatives with clear links to conservation or improved management of existing livelihood resources have often meant the difference between success and failure in Indochina. Local Conservation Group projects that were not able to deliver alternative livelihood strategies in the face of external impacts on local livelihoods or increased restrictions on natural resource exploitation have faced considerably more difficulties than those that have been linked to clear development benefits. Per diem payments to Group members can clearly only be an interim measure. In Indochina supporting communities to achieve development objectives will mean acquiring the relevant skills and resources within the conservation organization or partnering with a development organization. If partnering, the development organization must have an equal commitment to conservation objectives and be willing to clearly programme those objectives into community project plans for the development–conservation link to be effective at the village level.

(4) Indicators meaningful to, and measurable by, Local Conservation Groups must be set for monitoring progress and outcomes, even if these are not the full set of indicators that the conservation project will use. Monitoring of indicators that the Groups cannot realistically monitor may be done by specialists. Monitoring of biodiversity and threats has provided an important focus for Group patrolling activities in Indochina but has rarely constituted more than surveillance. Expectations of monitoring by Groups need to be significantly reduced and partner support to systematic monitoring increased. Such partner-supported monitoring needs to be not only of the project implementation process but also of project impact, including direct conservation outcomes and Local Conservation Group sustainability.

(5) Placement of Local Conservation Groups within a wider multiple stakeholder support network that provides horizontal as well as vertical links is key to supporting the effectiveness and sustainability of the Groups. Horizontal links include exchanges with Groups in other villages, for mutual support and learning. Vertical links include those with protected area, township, district and provincial officials and authorities for enforcement and possibly material support. They also include links with national-level

government agencies for activation of policies (e.g. community tenure rights) that support the goals and operation of Local Conservation Groups. Lastly, vertical links are needed with development agencies for assistance in meeting livelihood needs.

(6) Skills to facilitate participatory processes and multi-stakeholder forums or locally-relevant approaches to awareness-raising must be acquired by conservation organizations. Participatory processes of planning and implementation of both development and conservation activities, and participatory processes that convene stakeholders ranging from local to national, are critical for implementing and achieving objectives. Local Conservation Groups in Indochina, especially Vietnam, have often been developed in haste along project timescales, with insufficient attention given to stakeholder agreement on approach and aims, participatory project and activity planning, and stakeholder representation. Many Local Conservation Groups have fallen short of their potential because of insufficient training, monitoring, oversight, mentoring and encouragement: factors related to the lack of capacity and experience of supporting NGOs. The rallying of communities around conservation activities and the engagement of stakeholders at multiple levels takes time, as well as specific skills, and these need to be developed and given due status in conservation organizations.

(7) Consideration of approaches to the sustainability of Local Conservation Groups should occur from the start of planning, and include how Groups could grow within a network of supportive organizations, become institutionalised if necessary, and find necessary human and material resources to become self-sufficient. As such, working closely to develop a Local Conservation Group focus within existing organizations is more likely to be successful than setting up new organizations. Many Local Conservation Groups in Indochina stopped functioning when the relationship with the partner NGO broke because of a lack of resources. With the exception of the Local Conservation Group at Xuan Thuy, Vietnam, the only Local Conservation Groups still extant in the region are at Cambodian sites where BirdLife has committed to long-term financial and technical support or at Vietnamese sites where BirdLife has assisted provincial authorities to raise donor funding to continue Group activities (Table 3). It must be recognized that achieving sustainability will take time and dexterity and that support to Local Conservation Groups will necessarily pose a cost to conservation objectives. This short-term cost to conservation should be seen as an investment in long-term conservation gains.

Discussion

Successful biodiversity conservation in Indochina is more dependent on the management of people than on that of species or their habitats: the successful influencing of

behaviour of human communities, of interest groups within communities, of people and governments in towns, cities and villages, including populations often in stress of poverty, migration or resettlement, and managing the diverse interests, motivations and capacities of authorities and government agencies. Local Conservation Groups are challenged to bring people together in a mutually accountable interest group that has a primary interest in the protection of a site and its related species. The skills to achieve this are not traditional strengths of conservation organizations but unless these skills to facilitate participatory multi-stakeholder processes are built into conservation organizations they will not be equipped to meet the challenge of biodiversity conservation.

In Indochina Local Conservation Groups have, in some cases, been an important mechanism for starting to empower local communities by providing a formalized focal point for interaction with district- and provincial-level forest and fisheries protection authorities. The mutual benefits of this have been recognized both by local people and authorities. Such cooperation has resulted both in increased efforts to tackle illegal natural resource exploitation and in establishment of conservation legislation at IBAs for the common benefit of local communities and biodiversity.

Indochina may not offer the most suitable enabling conditions for community-based conservation because of a lack of secure land and resource tenure for local communities, and a limited tradition of civil society responsibility. Nonetheless, despite increasing inequities, land titling is progressing, civil society is growing, and income and education levels are increasing. There is thus increasing potential to capitalize on the Local Conservation Group approach, utilizing lessons learned. Most notable threats to biodiversity that Local Conservation Group-based conservation have failed to tackle in Indochina have resulted from external development pressures and it is important that future Group activities are always complemented by attention to such higher-level policy issues.

Greater success is likely to result from a number of changes in implementation. Increased attention is needed to provision tangible benefits that clearly meet both conservation and development objectives, to recognize the heterogeneity of ethnic groups and communities and to tailor such benefits to individuals and groups within communities. Increased support is needed for awareness-raising activities, as it is to clear monitoring of activities and impacts. Most importantly, there is a need for adoption of a consistent programme-based rather than project-based approach to Local Conservation Groups to ensure much greater consistency and continuity of support from partner NGOs.

Overall, there are sufficient positive signs from pilot initiatives to expect that, if adapted, improved and supported by increased partner NGO capacity, Local Conservation Groups could become an important conservation

TABLE 3 Illustrative contrast between Local Conservation Groups in Vietnam that are still extant (Truong Son) and that are defunct (Tien Hai).

	Truong Son (2004–present)	Tien Hai (2006–2007)
Sustainability	Group now supported by provincial Forest Protection Department (FPD), via funding raised jointly by BirdLife and provincial FPD,	Group stopped after BirdLife attempts to transition support to another NGO failed, and no further funding was raised
Effectiveness	Considered good	Considered to be a success
Community benefits	Per diems; substantial livelihood activities, but of limited success due to limited prior assessment	Per diems
Main awareness-raising focus	Regular village meetings, integration of conservation messages into traditional festivals, limited awareness-raising in schools, provision of some information resources	Limited training, a local exchange visit, and an awareness event
Monitoring	Group patrols generated lots of information but only of surveillance, not monitoring, value	Regular counts made of several key wetland bird species
Key references	(BirdLife International in Indochina, 2006, 2007b)	(BirdLife International Asia Division, 2007)

and development tool in Indochina. Although there has been a lack of quantitative monitoring of implementation and results it appears that Local Conservation Groups have, with only limited external inputs, contributed to civil society empowerment and reduction of threats to biodiversity, and increased conservation designation at a number of sites that are globally significant for biodiversity. There are no examples yet in Indochina of Local Conservation Groups that are financially or institutionally sustainable, largely because none have been given sustained support for the time necessary to build capacity for such sustainability. If lessons are learned from experiences to date, Local Conservation Groups have significant potential for locally-driven support to conservation outcomes. There is a need to learn from the successes of these Groups and not be disheartened by their failures, which are always to be expected in the challenge of biodiversity conservation.

Acknowledgements

This article was partially supported by MacArthur Foundation Grant number 0992507000GSS as an output of the project Evaluating, Consolidating and Sustaining Conservation of Key Sites in the Lower Mekong. We thank Julius Arinaitwe, David Thomas and Roger Safford for discussions about Local Conservation Groups. Comments by Jack Tordoff, Le Trong Trai, Nguyen Duc Tu, David Thomas, Tran Thi Binh, Tran Van Hung and two anonymous reviewers considerably improved this article.

References

AGRAWAL, A. & CHHATRE, A. (2006) Explaining success on the commons: community forest governance in the Indian Himalaya. *World Development*, 34, 149–166.

- BIRDLIFE INTERNATIONAL (2006a) *Monitoring Important Bird Areas: A Global Framework. Version 1.2*. BirdLife International, Cambridge, UK.
- BIRDLIFE INTERNATIONAL (2006b) *Building Grass-roots Support for Conservation: Lessons Learned from BirdLife's Site Support Groups in Cambodia and Vietnam*. BirdLife International in Indochina, Hanoi, Vietnam.
- BIRDLIFE INTERNATIONAL (2006c) *IBA Local Conservation Groups: BirdLife's Approach To Working Locally for IBAs*. Unpublished Report to BirdLife International, Cambridge, UK.
- BIRDLIFE INTERNATIONAL (2007) *IBA Toolbox: A Strategy for IBA Conservation*. Unpublished Report to BirdLife International, Cambridge, UK.
- BIRDLIFE INTERNATIONAL AFRICAN PARTNERSHIP (2004) *Workshop on Site Support Groups, Nairobi, Kenya, 25–29 October 2004*. Unpublished Report to BirdLife International, Nairobi, Kenya.
- BIRDLIFE INTERNATIONAL ASIA DIVISION (2007) *Conservation of Important Bird Areas in Asia—Follow-up Actions for IBAs in Vietnam and Timor-Leste*. Unpublished Final Report to the Keidanren Natural Conservation Fund. BirdLife International, Tokyo, Japan.
- BIRDLIFE INTERNATIONAL–CAMBODIA PROGRAMME (2007) *Strengthened Community Natural Resource Management in Western Siem Pang IBA, Cambodia. Final Report*. Unpublished Report to the DGIS/TMF Small Grants Programme. BirdLife International, Hanoi, Vietnam.
- BIRDLIFE INTERNATIONAL IN INDOCHINA (2006) *Conservation of Important Bird Areas in Indochina: Strengthening Site Support Groups to Conserve Critical Biodiversity. Final Review*. Unpublished Report to the MacArthur Foundation. BirdLife International, Hanoi, Vietnam.
- BIRDLIFE INTERNATIONAL IN INDOCHINA (2007a) *Community Participation for Conservation in Cambodia: Final Review*. Unpublished Report to Danida. BirdLife International, Phnom Penh, Cambodia.
- BIRDLIFE INTERNATIONAL IN INDOCHINA (2007b) *Bac Huong Hoa—Community Stewardship of Natural Resources for Biodiversity Conservation and Poverty Alleviation at Truong Son Important Bird Area, Vietnam. Dakrong—Strengthening Site Support Groups to Conserve Critical Biodiversity and Provision of Livelihoods at Dakrong Nature Reserve, Vietnam. Mid-term Review*. Unpublished Draft Report to BirdLife International, Hanoi, Vietnam.

- BIRDLIFE INTERNATIONAL–VIETNAM PROGRAMME (2003) *Improved Conservation Planning Through Institutional Strengthening in Cambodia, Laos and Vietnam*. Unpublished Final Report to the Royal Danish Embassy. BirdLife International, Hanoi, Vietnam.
- BIRDLIFE INTERNATIONAL–VIETNAM PROGRAMME (2004) *Generating Community Support for Biodiversity Conservation at Xuan Thuy National Park*. Unpublished Final Report to the Keidanren Natural Conservation Fund. BirdLife International, Hanoi, Vietnam.
- DANIELSEN, F., BURGESS, N.D., BALMFORD, A., DONALD, P.F., FUNDER, M., JONES, J.P.G. et al. (2008) Local participation in natural resource monitoring: a characterization of approaches. *Conservation Biology*, 23, 31–42.
- DARWIN INITIATIVE (2007) *Building Constituencies for Site-based Conservation in Myanmar. Final Review*. Unpublished Report to Darwin Initiative, London, UK.
- DEARDEN, P., BENNETT, M. & JOHNSTON, J. (2006) Trends in global protected area governance, 1992–2002. *Environmental Management*, 36, 89–100.
- DUDLEY, R.G. (2004) A system dynamics examination of the willingness of villagers to engage in illegal logging. *Journal of Sustainable Forestry*, 19, 31–53.
- EAMES, J.C., U U GA, U HTIN HLA, KHIN MA MA, THWIN, AUNG KYAW NYUNT & LUU THI MY (2007) *Building Constituencies for Site-Based Conservation in Myanmar. Final Report to the Darwin Initiative*. Unpublished Report to BirdLife International, Hanoi, Vietnam.
- EBERHARDT, K., U UGA, AUNG KYAW & HUNGMAN (2007) *Final Report. Small Grants Programme. Natmatung National Park IBA Site Support Group Network*. Unpublished Report to BirdLife International, Yangon, Myanmar.
- GUBBI, S., LINKIE, M. & LEADER-WILLIAMS, N. (2009) Evaluating the legacy of an integrated conservation and development project around a tiger reserve in India. *Environmental Conservation*, 35, 331–339.
- HUGHES, R. (2005) *IBA Local Conservation Groups and Caretakers: Learning from Early Experience and Future Directions*. Unpublished Report to BirdLife International, Cambridge, UK.
- HUGHES, R. & FLINTAN, F. (2001) *Integrating Conservation and Development Experience: A Review and Bibliography of the ICDP Literature*. International Institute for Environment and Development, London, UK.
- KIMANI, K.D. (2004) *Community Based Conservation as a Tool for Birds and Biodiversity Conservation: The Role of Site Support Groups in Important Bird Areas*. MSc thesis, University of East Anglia, Norwich, UK.
- KREMEN, C., MERENLANDER, A. & MURPHY, D. (1994) Ecological monitoring: a vital need for integrated conservation and development projects in the tropics. *Conservation Biology*, 8, 388–397.
- LINKIE, M., SMITH, R.J., ZHU, Y., MARTYR, D.J., SUEDEMEYER, E., PRAMONO, J. & LEADER-WILLIAMS, N. (2008) Evaluating biodiversity conservation around a large Sumatran protected area. *Conservation Biology*, 22, 683–690.
- MEHTA, J.N. & HEINEN, J.T. (2001) Does community-based conservation shape favourable attitudes among locals? An empirical study from Nepal. *Environmental Management*, 28, 165–177.
- MILLENNIUM ECOSYSTEM ASSESSMENT (2005) *Ecosystems and Human Well-being: Current State and Trends: Findings of the Conditions and Trends Working Group. Volume 1*. Island Press, Washington, DC, USA.
- NEWMARK, W.D., LEONARD, N.L., SARIKO, H.I. & GAMASSA, D.G.M. (1993) Conservation attitudes of local people living adjacent to five protected areas in Tanzania. *Biological Conservation*, 63, 177–183.
- NGARI, S.M. (2007) *Conserving Biodiversity in Africa: Guidelines for Applying the Site Support Group Approach*. BirdLife International, Cambridge, UK.
- OATES, J.F. (1999) *Myth and Reality in the Rainforest: How Conservation Strategies are Failing in Africa*. University of California Press, Berkeley, USA.
- OSTROM, E. (1999) *Self-Governance and Forest Resources*. Occasional Paper no. 20. CIFOR, Bogor, Indonesia.
- SAGE, N. & NGUYEN, CU (2001) *A Discussion Paper on Analysis of Constraints and Enabling Factors of ICDPs in Vietnam*. Unpublished Report to CARE, SNV & WWF, Hanoi, Vietnam.
- SUNDERLAND, T.C.H., EHRLINGHAUS, C. & CAMPBELL, B.M. (2008) Conservation and development in tropical forest landscapes: a time to face the trade-offs? *Environmental Conservation*, 34, 276–279.
- TIMBERLAKE, J. & FENTON, D. (2003) *African NGO–Government Partnerships for Sustainable Biodiversity Action Project RAF/97/G31: Final Project Evaluation*. Unpublished Report to UN Office for Project Services/UN Development Programme, Nairobi, Kenya.
- WILKINSON, N.M. & NGUYEN, THANH VAN (2006) *Evaluation of and Recommendations for IBA Monitoring by Site Support Groups (SSGs) in Quang Tri Province, Vietnam*. Unpublished Report to BirdLife International, Hanoi, Vietnam.
- ZEBE, S. (2004) *Experience of SSG Approaches at National Level: Taking Stock of Early Experience in Africa. Regional Review Report*. Unpublished Report to BirdLife International African Partnership, Nairobi, Kenya.

Biographical sketches

JOHN D. PILGRIM has a particular interest in assessing and funding conservation priorities, and improving conservation approaches. KARIN EBERHARDT provides technical support to community-led conservation, natural resource management and livelihoods initiatives, mostly in Myanmar. JONATHAN C. EAMES leads the BirdLife International Indochina Programme across Cambodia, Laos, Myanmar and Vietnam. BOU VORSAK and PHAM TUAN ANH manage the Cambodia and Vietnam programmes, respectively, of BirdLife International.