

Evidence-based Conservation

Lessons from the Lower Mekong

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25 Lessons learned from conservation and development interventions in the Lower Mekong

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Integrating conservation and development at the project scale is a major challenge. Proving success is clearly harder. After decades of growth in funding of ICDPs the jury remains out as to what contributes to, or constitutes, success or failure. Occasionally papers are published that provide insights into the field realities of conservation, accompanied by the odd mea culpa (see Brooks *et al.*, 2011), yet, as we point out in the introductory chapter, the lack of rigorous reporting of both successes and failures by most conservation NGOs and their partners is stopping us from learning. It has been argued that expectations are just too high (Ferraro and Hanauer, 2011). Is it really feasible that a single project working in a complex socio-political environment can contribute to improving rural livelihoods in a sustainable manner while also achieving long-term conservation goals? ICDPs are almost always attempting to achieve these dual goals in environments that are heavily influenced by external threats. In this final chapter we attempt to bring together the evidence for the projects covered in this book and suggest some elements for more integrated and effective conservation and development interventions in the future.

To be, or not be (an ICDP)? That is indeed the question

A first glance at the project narratives presented in this book shows that the classic ICDP approach predominates in conservation at the project level in the Lower Mekong. However, aside from the opening chapter and a number of the synthesis chapters the term “ICDP” is little used. Whether the terms ICDPs or “landscape approach” are used, the fact is that these projects are all aiming to achieve both conservation and development. Aside from possible spatial or temporal differences, much of the current discourse on conservation described in this book is consistent with the classic ICDP concept. However, ICDPs have generated such criticism that most conservation organizations avoid the use of the term and have shifted to what they describe as a broader “landscape approach”. This has gained credibility in the recent literature (see Sayer *et al.*, 2007). As one senior scientist within an international conservation NGO working in the Lower Mekong told us, “We don’t do ICDPs, we do

landscapes.” However, when looked at beneath the surface, it is hard to escape the conclusion that this is simply a case of old wine in new bottles – the fundamental approaches have not changed (Ite and Adams, 2000).

Does this matter? Perhaps it does. As moves towards designing landscape-scale projects gather momentum (see, for example: www.cbd.int/doc/meetings/sbstta/sbstta-15/official/sbstta-15-13-en.pdf), there is much to be learned from the history of ICDPs. Some contemporary concepts that are integrated into the landscape approach, such as the use of market-based incentives (see below), do offer considerable future potential but scarcely become operational as yet.

New conservation approaches: valuing nature

The sale of ecosystem services could enable forested landscapes to yield financial benefits to underwrite conservation (Tallis *et al.*, 2009). In recent years, such market-based financial mechanisms have emerged as potential conservation tools. These include payments for environmental services (PES), which can focus on a bundled set of services (watershed, pollination services etc.) and Reduced Emissions from Deforestation and Degradation (REDD), which is primarily focused on carbon sequestration. The commoditization of nature through such market mechanisms has not been without its critics (e.g. Igoe and Brockington, 2007), but it provides unique and interesting opportunities to provide the finance needed for long-term funding for both conservation initiatives and local livelihood improvements. Petheram and Campbell and Thuy (both in this volume) argue that it is probably best to include PES as a complementary funding mechanism to support conservation and development efforts, rather than as a standalone solution to linking conservation and development. However, very few of the sites included in this book have any PES mechanism in place. Only the two sites in Cambodia (Clements *et al.*, 2010), and in the Lower Mekong have PES schemes, and these remain very much in the pilot, or conceptual stage. However, Robichaud (Chapter 9 of this volume) in the narrative on Nakai Nam Theun, Laos, shows how the growing hydropower industry could mitigate its long-term conservation impacts through the provision of payments for ecosystem services. However, as he notes, without adequate conditionalities, there is little scope for such schemes to fund conservation initiatives directly.

Recently REDD, in its various forms, has stimulated considerable interest among the many conservation organizations working in the Lower Mekong. As the REDD+ agenda continues to unfold along with the UNFCCC negotiations, its potential to support conservation and development activities and possibly other co-benefits, will become clearer (Miles and Dickson, 2010). Blom *et al.* (Chapter 24 of this volume) investigate the potential for REDD to support conservation in the Lower Mekong, specifically looking at previous project designs and experiences, while Pham Thu Thuy (Chapter 23 of this volume) summarizes what potential such schemes have for the alleviation of rural poverty. Both chapters conclude that REDD creates both opportunities and

risks for biodiversity conservation and the design of these initiatives will determine whether there might be major benefits. Current expectations related to REDD are extremely high, but these may need to be tempered as moves from the pilot to project stage falter.

One potential source of long-term sustainable financing that has been identified is ecotourism. As each country has emerged from long periods of military and political conflict, tourism has grown at a steady rate of 12 per cent per annum for the decade 1993–2003 (ICEM, 2003). Nature-based tourism, or ecotourism, is the fastest growing category within the sector, yet its contribution to actual conservation is unclear (Marris *et al.*, 2003). A number of site narratives in this book reveal that ecotourism is listed as a major activity in many landscapes, yet examples of finance generated from ecotourism are scarce. This is primarily due to institutional factors (see Hoang *et al.*, Chapter 18 of this volume) as tourism revenues are often centralized and there is little collaboration between national park services and the government agencies responsible for tourism.

The dream of monitoring, the reality of experience?

It has been argued that despite a plethora of writings on methodologies, conservation projects are in general poorly monitored and evaluated (e.g. Garnett *et al.*, 2007; Sayer *et al.*, 2007) – despite the consensus among researchers, funders, conservationists and development agencies that monitoring and evaluation is necessary for learning and adaptation (Kapos *et al.*, 2009). There is growing recognition that anecdotal information from projects in the tropics needs to be replaced by a hard evidence base that can guide project managers and ultimately inform decision-makers. However, there is widespread evidence of failed or poorly functioning monitoring schemes (Sayer *et al.*, 2007).

Many of the sites included in this book have monitoring and evaluation frameworks in place. This is notably the case where the monitoring of large mammals is a condition for funding (see Johnson, Chapter 7 of this volume), or where long-term implementation is anticipated (Evans *et al.*, Chapter 12 of this volume). However, many projects do not have a long-term monitoring system. Such systems are expensive and complex to implement and are often regarded as a luxury, particularly in the face of other, more pressing priorities. During the final project workshop where we brought together representatives from each of the sites presented in this book, most participants argued that monitoring was of relatively low priority compared to law enforcement. All too often, the only motivation to put monitoring systems in place is the desire to keep donors happy. The value of monitoring as a source for learning and adaptation is not yet recognized as a priority on the ground.

However, this need not be the case. The best practice variables proposed by Yaap and Campbell (Chapter 16 of this volume) show that projects could relatively easily undertake more systematic monitoring and evaluation. Systematic collection of data on predefined, measurable indicators of success

for both conservation and development goals would allow for greater rigor to be applied in the analysis of the link between outcomes and project design.

There are, however, fundamental challenges to attribution of the impacts of projects that attempt to achieve multiple objectives. Conservation and development projects are, by definition, in hotly contested landscapes subject to multiple pressures and with diverse stakeholder interests. Disaggregating the impacts of the numerous drivers of change is methodologically complex. Randomized control trials (RCTs) are generally considered to be the preferred approach in such situations, but the uniqueness of each situation compounded by the diversity of drivers of change would make for excessively costly and complex RCT design. To our knowledge, no one has ever attempted to use RCTs to evaluate conservation projects.

A new role for protected areas?

Protected areas remain the cornerstone of conservation in the Lower Mekong. Slayback and Sunderland (Chapter 20 of this volume) show that, in general, most protected areas in the region are relatively effective at preventing direct forest loss. In this respect they perform better than buffer zones or otherwise unprotected forested areas. PAs are often regarded as areas designated for conservation of wildlife and forests, but increasingly they are also expected to be drivers and providers of social and economic change. Although there is little demographic data to prove it, anecdotal evidence suggests that the development focus around some of the PAs in the Lower Mekong attracts migrants to settle around protected areas (Evans *et al.*, Chapter 12 of this volume; Robichaud, Chapter 9 of this volume). However it is difficult to prove this relation, as the counter-factual cannot be tested. Nonetheless, if forest cover is taken as a proxy for conservation “success”, the fact that the protected areas are effective at reducing deforestation does provide considerable evidence that PAs are good investments.

A summary of lessons learned

The following are some of the main lessons that emerge from the chapters included in this volume and the workshop at which the papers were discussed by the authors. Some of them may appear self-evident, but in every case there were examples where projects had suffered from failure to observe these basic principles.

Projects must have clear but plausible conservation goals and objectives from the outset.

Setting clear and achievable objectives is especially important for projects where the enthusiasm to build alliances and merge conservation and social

agendas often leads to very broad objectives. There are often different and sometimes conflicting expectations among stakeholders (see Yaap and Campbell, Chapter 16 of this volume). A thorough analysis and understanding of threats to the area in question will help to determine both proximate threats and the root causes of biodiversity loss and how best these can be mitigated by project activities. Improving livelihoods or amenities for local communities may bring some limited local benefits and help to win local support, but linking such benefits directly to conservation (i.e. proving causality) can be difficult.

If long-term goals are to be set, then long-term funding is needed. One of the main criticisms of the ICDP approach was that short-term project cycles were never going to be successful (Sayer *et al.*, 2007). However, securing long-term funding for a particular site is the “Holy Grail” of conservation. Nearly all of the project narratives in this book identify the lack of long-term funding as being a major hindrance in achieving project goals. Although there are possibilities of securing long-term funding through market-based incentives such as PES and REDD, such concepts have yet to be translated into practical realities at a large enough scale.

Stakeholder participation and partnerships must be central to all projects

As Preece *et al.* (Chapter 21 of this volume) describe in the chapter on “organizational strategies” the managers of conservation areas are operating in complex environmental and social contexts, and so are tasked with improving conservation, livelihoods and institutions, often with the assistance of numerous other organizations. Many of these partner organizations are focused on specific conservation and livelihood objectives, conducting activities such as species monitoring, education and supporting income generation activities, but there are also non-partner organizations operating at the same sites that take other approaches to improving the livelihoods of local residents, for instance through health care and infrastructure development. The complexity of contexts means that multi-stakeholder negotiations are fundamental to success. Partnership arrangements and participatory techniques are necessary ingredients for the achievement of conservation and development outcomes.

Preece *et al.* (Chapter 21 of this volume) suggest that forming partnerships is an important element of any attempt to improve conservation management and livelihoods. Employing practices of participation and consultation with the stakeholders of conservation areas also aids in improving the performance of interventions. The comparisons between projects that this book provides are useful for finding patterns among interventions and sites. The wide variety of contexts means that detailed case studies are important, and as we have stated repeatedly, more emphasis needs to be given to monitoring and evaluation in order to build the evidence base on what works and what does not in achieving conservation and development.

Providing alternative income generating activities and understanding that linkages are fundamental to achieving both conservation and development

Many projects are designed on the premise that poverty is the main threat to biodiversity and that providing development opportunities to local communities will reduce pressure on protected resources. This premise is often misplaced or outright wrong; the linkages between conservation and development are at best unclear, and the majority of threats to the sites in this book are primarily external (Preece *et al.*, Chapter 21 of this volume).

Solutions are always context specific. The best land uses adjacent to parks may be well-managed lands dominated by diverse agricultural systems. These often provide considerable social benefits, with concomitant biodiversity benefits, such as the maintenance of tree cover, for example in the case of coffee.

However, understanding and negotiating trade-offs between conservation and development is fundamental in ensuring optimal outcomes for both (Anderson *et al.*, Chapter 19 of this volume). Strict law enforcement in and around protected areas can have significant livelihood impacts, affecting those that are reliant on the low impact use of forest resources as much as the illegal hunter. Conversely, some livelihood and development activities, such as the introduction of new crops or other activities that generate immediate income, can lead to local investments that compromise future conservation (e.g. the purchase of a chainsaw for illegal logging). Mitigating the impacts of competing and conflicting activities is fundamental to integrated management. However, as Anderson *et al.* (Chapter 19 of this volume) suggest that this can be extremely challenging.

Projects must be based upon a full understanding of their policy context

In many cases, the root causes of biodiversity loss and of the threats to parks can be traced to government policies. As Hoang *et al.* (Chapter 18 of this volume) point out, there may be an excellent policy framework in place for conservation and poverty alleviation, but without implementation of such legislation success will be elusive. Government policies are often contradictory, with competing land-use claims overlapping on the same area (Hoang *et al.*, Chapter 18 of this volume). Many policies affect the rate of tropical forest loss in the Lower Mekong. These include:

- resettlement and transmigration policies that encourage colonization of forest frontier regions;
- provincial and national transport and communication policies that encourage road building through forested regions;
- energy policies that promote the flooding of lowland valleys for hydro-electric power schemes;

- pricing policies and subsidies that undervalue timber and agricultural products;
- land tenure policies that promote expansion of the agricultural frontier.

Mitigating such threats to conservation is thus embedded in the policy arena. As Preece *et al.* (Chapter 21 of this volume) suggest in their assessment of threats to biodiversity in the Lower Mekong, the implementation of more biodiversity-oriented policies at the national level could reduce threats. For example, a moratorium on the development of new hydropower schemes would have considerable benefits for conservation. Surprisingly, such leadership has recently been shown by a neighbouring country, Myanmar, which is not normally known for its conservation achievements but which has halted the development of a large hydropower scheme in the north of the country and, in so doing, incurred the wrath of its biggest economic partner, China (see: www.guardian.co.uk/environment/2011/oct/04/china-angry-burma-suspend-dam?INTCMP=SRCH).

As Hoang *et al.* (Chapter 18 of this volume) point out, the policy challenges to protected areas are further compounded by a general lack of political commitment for conservation. This is manifest in the weakness of many conservation agencies and the inadequate financing for park management activities. This weakness makes it difficult for managers to challenge other government agencies over regional development plans that may deleteriously affect PAs. However, perhaps a greater challenge is to strengthen national commitment to conservation by increasing the awareness of policymakers and other major stakeholders of the multiple ecological and social benefits of protected areas and their critical value in protecting the environmental services upon which broader developmental goals depend.

Invest more in education, awareness and capacity building

Many of the projects described in this book play a critical role in building local and institutional capacity for strengthening protected areas and their management. They have helped to pilot new institutional models, to encourage public-private partnerships and to create a much greater role for NGOs, local communities and indigenous groups in protected area and conservation activities. These activities, supported by training, education and awareness campaigns, have often been some of the most successful aspects of each of these projects, helping to build local ownership and support. Scaling up such capacity building to the national level remains one of the biggest challenges. The empowerment of local people and the enhancement of their capacity to play a role in determining their own future and the future of their landscapes is probably the greatest achievement of the projects described in this book. The projects have touched the lives of hundreds of thousands of hitherto marginal people. These are people who have suffered decades of conflict and civil strife. The conservation projects described may not be able to claim to have brought

about improvements in the classic development metrics – for instance, in improving scores on the millennium Development Indicators – but they have contributed to achieving the vision of Amartya Sen – they have provided these people with greater freedom of choice – they have been empowered to determine their own futures, and there are encouraging signs from many of our chapters that local people are beginning to take seriously the need and opportunity to protect their own environments.

In summary

The case studies presented in this volume illustrate a broad range of projects and activities where park managers, NGOs, local communities and the international agencies have worked together with mixed success to achieve that elusive goal: sustaining biodiversity in a changing and increasingly anthropogenic world. It is clear that there remains no silver bullet for assuring the long-term viability of protected areas and the biodiversity they contain. Nevertheless in a world where governments and donors are increasingly focused on poverty alleviation, it is clear that protected areas will have to be justified in terms of their developmental contributions. The provision of sustainable livelihood options and the ecosystem services required by society at large – such as watershed protection and reduced vulnerability to natural disasters and climate change – will ultimately be the main factors that will create demand for protected areas.

No universal approach for reducing all threats exists. But dams, roads and the opening up of the landscapes to hunting, logging and agricultural encroachment are all combining to create unprecedented pressures on the Lower Mekong environment. Shared learning across sites could help us to understand the dynamics of these threats and improve the effectiveness of conservation actions at a regional level. However, the different settings and uniqueness of the sites suggest that interventions must be rooted in a good understanding of the local context. Systematic in-depth planning is needed at each site as there is no “one size fits all”.

And finally, a cautionary tale: the Javan Rhinoceros in Vietnam¹

During the period that this book was in preparation, there was continued speculation about the fate of the last Javan rhinoceros in the Cat Tien National Park in Vietnam. The presence of such an iconic, yet enigmatic, large mammal that had stayed hidden from the world for so long precipitated considerable conservation activity in Cat Tien. The WWF and the Government of Vietnam mobilized significant resources. In October 2011, in a report to WWF-Vietnam, Brooks *et al.* (2011) concluded that the Javan rhino was confirmed as extinct in the wild. They described this as a “major conservation failure”, and went on to discuss what went wrong in the context of a well-resourced protected area and what might have been done differently to save this last individuals of the

Javan rhinoceros in Vietnam. For an international conservation NGO, such a stark admittance of conservation failure is rare, but ultimately welcome. Brooks *et al.* (2011), using the case of the Javan rhinoceros as an example, highlight what needs to be done elsewhere to protect the other iconic species of the Lower Mekong. Even in protected areas with significant funding, wildlife remains under threat. One hopes that this message resonates beyond Cat Tien to the wider Lower Mekong ecoregion. Through the prism of a local tragedy, perhaps some broader regional lessons can be learned.

Note

- 1 See <http://blog.cifor.org/4876/killed-for-keratin-the-unnecessary-extinction-of-the-rhinoceros/>.

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