

# COMPACT

Engaging Local Communities in  
Stewardship of World Heritage





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## Engaging Local Communities in Stewardship of World Heritage

Edited by Jessica Brown and Terence Hay-Edie



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## PREFACE

The United Nations Foundation (UNF) was established by Ted Turner in January 1998 to support the UN and its causes – with special emphasis on population and women, the environment, children’s health and selected humanitarian concerns.

A key element of the Foundation’s original environment strategy was to support the conservation of protected areas designated by the World Heritage Convention (UNESCO, 1972) for their global biodiversity significance. Nominated by the nations in which they are located, World Heritage sites are places of “outstanding universal value...for whose protection it is the duty of the international community as a whole to cooperate.”

Though they have defined boundaries, World Heritage sites are very much a part of the communities in which they are located. As such, they provide rich opportunities to develop and promote effective models for integrating compatible human uses with the protection of ecosystem functions and biodiversity.

World Heritage sites have the potential to showcase the effective integration of sustainable local development with conservation by demonstrating how conservation can contribute to local and national economic development, culture, and pride. With this vision and aim in mind, the UN Foundation joined forces over a decade ago with the GEF Small Grants Programme implemented by UNDP to develop and implement an innovative and highly decentralized programme – the Community Management of Protected Areas Conservation (COMPACT) initiative.

Since 2000, the COMPACT programme has been working with communities living in the vicinity of eight World Heritage Sites in Africa, Asia, Meso-America and the Caribbean. Through extensive on-the-ground experience

and a participatory methodology that integrates an evidence-based approach, COMPACT has rigorously tested the claim that community-based initiatives can significantly increase the effectiveness of biodiversity conservation in globally significant protected areas while also improving local livelihoods.

The UN Foundation is pleased to note that the \$6 million in catalytic financing provided to the UNDP has helped leverage an investment in excess of \$10 million from the GEF, as well as significant levels of third party co-financing generated by over 430 individual small grants disbursed to civil society partners in the field. Through the support provided by UNF, the programme has facilitated extensive site level coordination of stakeholders, leading to the creation of Local Consultative Bodies and enhanced capacity for the decentralized management of World Heritage sites. Not least, through the many proposals developed by the communities themselves, COMPACT has also benefitted the lives of thousands of poor people that rely on ecosystem services for their livelihoods and wellbeing.

UNF is particularly delighted to see the rich body of lessons learned emerging from COMPACT – these range from community engagement in the nomination of new sites, participatory planning methodologies, as well as monitoring and evaluation techniques – together representing considerable potential for mainstreaming within the operations of the World Heritage Convention, as well as the safeguard of the planet’s biodiversity for future generations.

*Melinda Kimble*  
*Senior Vice-President,*  
*United Nations Foundation*



On the occasion of the 11th Conference of Parties for the Convention on Biological Diversity held in India in October 2012, the United Nations Development Programme (UNDP) launched its new framework *'The Future We Want: Biodiversity and Ecosystems – Driving Sustainable Development'* for the period 2012-2020. The strategy reflects a high level engagement by the UNDP to contribute to the challenge presented to national governments, the UN system, civil society and other major stakeholders to work together to achieve the Aichi CBD targets by the year 2020.

Protected areas (PAs) are important tools for conservation of biological diversity and sustainable development. They are sources of material and non-material wealth, with important natural, social and cultural values. They provide vital biodiversity benefits and ecosystem services, as well as investment and employment opportunities for local communities and indigenous peoples. By securing ecosystem functions and services, as well as by storing carbon, protected areas may in the long term also help humans and wildlife adapt to the impacts of climate change.

Under the 2012-2020 framework, a leading UNDP signature programme has been dedicated to *'unlocking the potential of protected areas, including indigenous and community conserved areas, to conserve biodiversity while contributing to sustainable development'*. Over the coming years, UNDP will work to ensure that terrestrial and marine protected areas are effectively managed, equitably governed, and sustainably financed. UNDP will also strive to connect the agenda on protected area governance and rights-based approaches to conservation to the emerging post-2015 sustainable development goals as the 'future we want'.

By engaging with thousands of civil society organizations at the local level, the UNDP-implemented Global Environment Facility Small Grants Programme (SGP) has been working for over twelve years to develop a new model for the co-management and shared governance of protected areas. In partnership with the UN Foundation and UNESCO, SGP has focused its effort on eight iconic World Heritage sites to serve as international benchmarks on how protected areas may be better measured in terms of conservation effectiveness, governance and rights. Through the COMPACT country experiences presented in this volume, UNDP is proud to share its experience in supporting the Aichi 2020 targets, as well as fostering a closer coordination amongst UN agencies.

Besides UNDP's important role in supporting governments to prepare the next generation of National Biodiversity Strategies and Actions Plans (NBSAPs), the continuing engagement with civil society organizations carried out by the SGP will help shape the agenda for protected areas over the coming decade. UNDP looks forward to expanding its work on shared governance of protected areas (identified under Target 11 of the Aichi framework) by building on the experience of COMPACT in developing community-friendly tools and methodologies to enhance the effectiveness of protected areas as instruments for conservation, poverty reduction and community empowerment.

*Adriana Dinu*  
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*Officer in Charge and*  
*Deputy Executive Coordinator*



## TABLE OF CONTENTS

	<b>Preface</b> <i>Melinda Kimble</i>	iii
	<b>Forward</b> <i>Adriana Dinu</i>	iv
Chapter 1	<b>Designing a working model to engage local communities in the stewardship of World Heritage Sites</b> <i>Terence Hay-Edie and Jessica Brown</i>	1
Chapter 2	<b>Key planning frameworks for COMPACT’s landscape and seascape approach</b> <i>Leonel Requena and Philip Balderamos</i>	11
Chapter 3	<b>COMPACT in the Sian Ka’an landscape: Working with indigenous peoples and local communities in key thematic areas</b> <i>Julio Moure</i>	25
Chapter 4	<b>Incorporating new methodologies and techniques into COMPACT’s work at landscape level: The Mt. Kenya World Heritage Site</b> <i>Fred Kihara, Nancy Chege and Gavin Hoch</i>	39
Chapter 5	<b>Building capacity: Helping grantees develop and manage their projects in a demand-driven programme</b> <i>Agnes Esprit</i>	57
Chapter 6	<b>Bringing communities into the management of protected areas: Experience from COMPACT Mt. Kilimanjaro</b> <i>Nehemiah Murusuri and Victoria Nderumaki</i>	67
Chapter 7	<b>COMPACT Madagascar: Conservation at the landscape scale across a mosaic of different governance regimes</b> <i>Faliarimino Rakotomanana and Vololoniaina Rasoarimanana</i>	79
Chapter 8	<b>Working with indigenous peoples in the conservation and management of Puerto Princesa Subterranean River National Park, Philippines</b> <i>Bonifacio Tobias</i>	95
Chapter 9	<b>Community engagement in the Djoudj National Bird Sanctuary and World Heritage site within the governance of a Transboundary Biosphere Reserve</b> <i>Khatary Mbaye and Mamadou Samba Sow</i>	107
Chapter 10	<b>Building the capacity of local small and medium-sized enterprises through business development services</b> <i>Lorena Bustos, Terence Hay-Edie, Neel Inamdar, Ana Lopez and Fabiano Silva</i>	117
Chapter 11	<b>Looking ahead: potential new opportunities for COMPACT to support the World Heritage Convention</b> <i>Tim Badman and Guy Debonnet</i>	133
	<b>Bibliography</b>	137
	<b>Acknowledgements/photo credits</b>	140
	<b>Chapter authors</b>	141





## Chapter 1 Designing a working model to engage local communities in the stewardship of World Heritage Sites



● ● ● CHAPTER 1

# Designing a working model to engage local communities in the stewardship of World Heritage Sites

TERENCE HAY-EDIE AND JESSICA BROWN

## Introduction

The Community Management of Protected Areas Conservation (COMPACT) Programme is a joint initiative of the UNDP-implemented Global Environmental Facility Small Grants Programme (SGP),<sup>1</sup> and the UN Foundation (UNF). With \$6 million in co-financing provided by the UNF, the initiative has developed a replicable model to engage communities in the co-management and shared governance of World Heritage sites – delivering over \$10 million in GEF small grants to NGOs, community-based organizations, and indigenous peoples organizations.

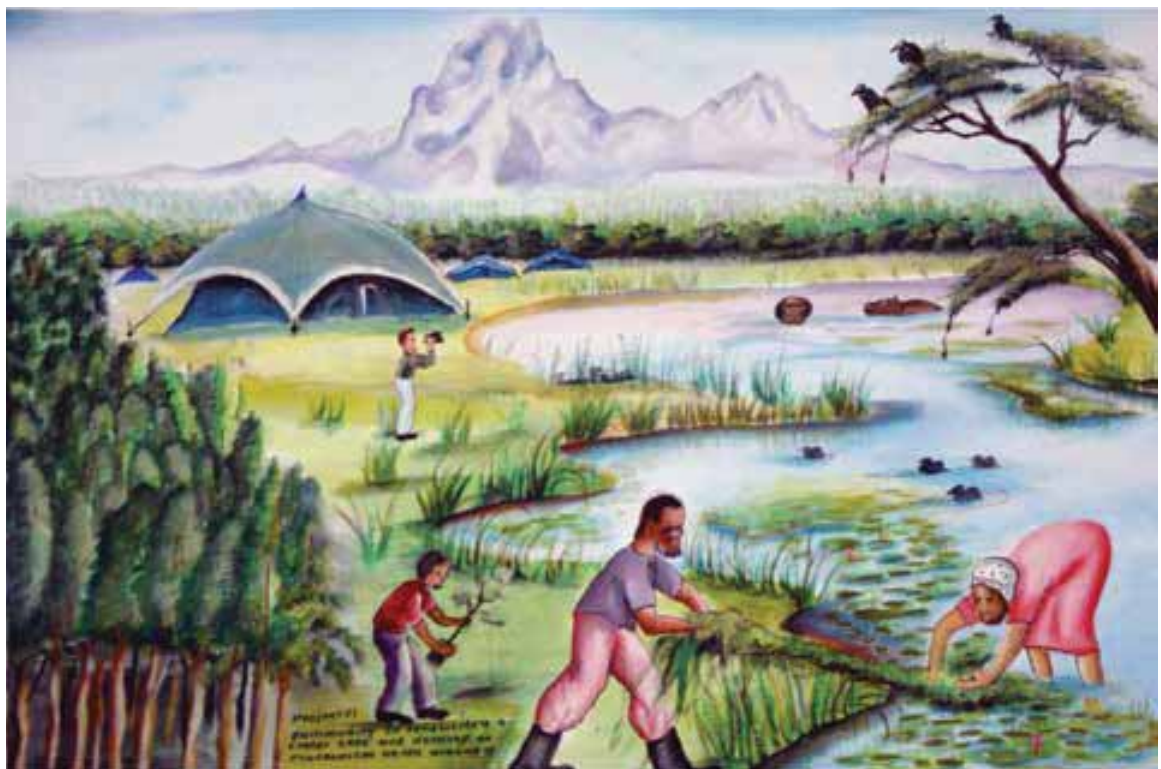
The first phase of COMPACT (running from 2000–2004) was initiated in six World Heritage sites recognized by UNESCO for their outstanding universal value and globally significant biodiversity.

With an emphasis on “complementing and adding value to existing conservation programmes”, COMPACT started with a “fifteen-year vision” to replicate the existing SGP delivery mechanism to strengthen biodiversity conservation and community empowerment in and around target World Heritage sites. In so doing, the experience derived from developing the SGP decentralized system and decision-making at the national level (initiated with the creation of the GEF in 1992), was customized for conservation activities at the protected area or ‘landscape’ level.<sup>2</sup>

During the second phase of the partnership with UNF (running from 2005–2013), COMPACT consolidated the focus of Phase 1 with the addition of two additional globally significant protected area clusters,<sup>3</sup> bringing the list of participating World Heritage sites and landscapes to eight in total, as follows:

*COMPACT communication and outreach campaign to promote the natural and cultural values of the Mt. Kenya World Heritage site landscape – community mural produced by the NGO ‘Brush against the powersaw’.*

*Overleaf: COMPACT grantees network from the Djoudj/Djawling trans-boundary Biosphere Reserve, St-Louis, Senegal, Jan 2011.*



- Belize Barrier Reef Reserve System, Belize
- Morne Trois Pitons National Park, Dominica
- Mount Kenya National Park, Kenya
- Sian Ka'an Biosphere Reserve, Mexico
- Puerto Princesa Subterranean River National Park, Philippines
- Mount Kilimanjaro National Park, Tanzania
- Djoudj-Djawling Transboundary Biosphere Reserve, Senegal & Mauritania
- Cluster of five protected areas in South-West Madagascar included in the “dry forests” national tentative list World Heritage nomination.

Over more than a decade of field experience, and a common methodology adopted across each of the participating World Heritage sites, COMPACT has tested the hypothesis that “community-based initiatives can significantly increase the effectiveness of biodiversity conservation in World Heritage sites while helping to improve the livelihoods of local people”. As described in this volume, the emerging results coming out from the COMPACT programme are thus highly relevant to the evolving debate on the political ecology of biodiversity conservation, and the nexus of “people, parks and poverty” (see Adams & Hutton 2007).

### **World Heritage and sustainable development**

At its inception, COMPACT was established as a “structured experiment” to contribute to the discussion on the relative merits of ‘integrated conservation and development projects’ (ICDPs). With this core objective in mind, COMPACT has sought to foster the engagement of local communities in the stewardship of World Heritage sites while responding to a number of challenges facing protected areas in diverse settings (i.e. mountains, islands, marine and coastal areas, forests, as well as living cultural landscapes).

The term ICDP has been used to describe a range of initiatives that share the common goal of linking biodiversity conservation in protected areas whilst meeting local social and economic development goals (Wells et al 1999). At the time of the initial programme design, ICDPs were widely seen to

offer considerable potential to address these diverse goals, but the model was also coming under increasing scrutiny (MacKinnon 2001; Wells et al 2004). The COMPACT initiative was thus formulated to examine whether the ICDP concept would “stand the test” of implementation over a time-period sufficient to address the capacity development and empowerment needs of local communities.

As argued by Ferraro and Pattanayak (2006), conservationists have depended for too long on “intuition and anecdote to guide the design of conservation investments”, and that protection of biological diversity “requires the same scientific rigor and state-of-the-art methods that we invest in testing ecological hypotheses”. In this context, COMPACT set out to design an empirical theory of change, through the use of baseline assessments and conceptual models, to develop well designed conservation interventions for the target protected areas – including the possibility of comparing the results with other World Heritage sites facing similar threats and pressures as possible ‘control groups’ to compare results with counter-factual examples.

The programme also recognized that many ICDP conservation efforts – in particular those relating to protected areas – were under increasing pressure to demonstrate that they can contribute to economic development and poverty alleviation as a contribution to the 2015 Millennium Development Goals (MDGs). Within this broader debate on the socio-economic role of protected areas, COMPACT has addressed many of the challenges of conserving biodiversity at relatively large ecosystem and landscape scales, working with a diverse range of communities and stakeholders across a mosaic of land uses (Brown et al 2005, Worboys et al 2010).

At the time of the design, a further challenge facing many of the selected World Heritage sites was that – despite the international recognition of their outstanding universal value – the sites were often better known globally than locally. While the World Heritage designation had brought “the eyes of the world” to the site, the potential for the sustainable development of local populations was often poorly understood and applied. COMPACT was thus established with the supposition that World Heritage sites, as priority conservation

Supporting local efforts to promote agrobiodiversity conservation, food security, and alternative livelihood needs in the buffer zones of protected areas, COMPACT South West Madagascar.



areas for humankind, would provide a conducive framework for boosting cooperation between intergovernmental agencies, governments, and civil society in order to halt or reverse critical threats to biodiversity, whilst also contributing to poverty reduction and community empowerment.

The socio-economic context and threats in the eight protected areas eventually selected by COMPACT has varied widely. Although each of the sites are unique in their own right, some of the common pressures have included *inter alia* the following: food insecurity; poor infrastructure; limited access to markets for local products; uncertain land tenure; pressures on resources including water, soil, forests, and fisheries; loss of both terrestrial and marine biodiversity in a shared landscape/seascape. While each of the World Heritage sites were generally rich in cultural diversity, they also faced challenges including the erosion of cultural identity, indigenous languages and traditional knowledge systems. Similarly, while local communities had many assets and social capital, recurrent challenges included lack of organizational capacity, lack of access to educational opportunities, and outmigration of young people from rural areas.

As Ferraro and Pattanayak (2006) further argue, conservation programmes rarely invest in replicable designs for conservation interventions. In this context, the selection of field sites would generally benefit from an assessment of important baseline variables, such as population pressures and levels of resource extraction (assessed and identified by COMPACT),<sup>4</sup> thereby improving the likelihood of designing conservation intervention with a robust ‘evidence-based approach’:

*“...interventions such as integrated conservation and development programs and conservation education are not randomly allocated across the landscape. Community-based interventions are more likely to be tried in areas that are experiencing high human pressures. Thus, comparing average conservation outcomes in areas where interventions benefit local people (high pressure) to average outcomes in areas where there are few such interventions (low pressure) gives a biased (down) estimate of the conservation effect of attempts to benefit residents around protected areas.”*

The authors also note, however, that for political reasons “it can be difficult to create a conservation programme that provides benefits randomly rather than to areas that most need them”, forcing conservation agencies to take into account human rights-based considerations. In Zambia, Lewis et al (2011) describe the experience of the ‘Community Markets for Conservation’ (COMACO) approach which operates primarily with communities surrounding national parks by first identifying “the least food-secure households and trains them in sustainable agricultural practices that minimize threats to natural resources while meeting household needs”. In the COMACO model, the authors test specific hypotheses and present data documenting the stabilization of previously declining wildlife populations, and the meeting of “thresholds of productivity” which give the rural poor access to stable, high-value markets and progress toward economic self-sufficiency, in particular through conservation farming, as a means to achieve conservation results.

In the case of COMPACT, the landscape model developed for World Heritage sites adopted what Ferraro and Pattanayak refer to as “quasi-experimental” method by opting for a periodic review and re-assessment of the baseline conditions

(through the development of a conceptual model and site strategy). Similar to the case of Lewis et al in Zambia, the programme then continued to evolve through adaptive management cycles driven by “multiple iterations” of small grants, extended over a ten year period, in a manner not dissimilar to ecological field trials repeatedly carried out to test approaches with demonstrated conservation results.

### **COMPACT model and key planning frameworks**

Working across sometimes quite large geographic areas, COMPACT has taken a landscape approach – one based on supporting local communities in their stewardship of protected areas and the broader landscape/seascape (Brown et al 2005). The approach recognizes the important linkages between World Heritage sites and the broader landscape, including buffer zones (Martin and Piatti 2008), as well as areas under community management. Adaptively managed over a ten year period, COMPACT’s landscape methodology has now been applied across a wide range of ecological and socio-economic situations.

Rooted in a common approach, the methodology has been highly participatory, seeking to engage local people and protected area stakeholders throughout the process (Brown et al 2010). Built on the principle of “sharing power” and co-management principles (Borrini-Feyerabend 2004), COMPACT has developed in parallel with the emergence of the cross-cutting concept of governance in the field of protected areas (Dudley 2008), and an accompanying shift towards community-led forms of governance in the growing recognition of the important role that indigenous peoples’ territories and community conserved areas (ICCAs), including community conservancies, play in the global conservation debate (see Schuerholz and Baldus 2012; Kothari et al 2013).

From the theoretical design, as described in this volume, the COMPACT methodology relies on three closely inter-linked core elements: an initial *baseline assessment* of the landscape and/or seascape, which then serves as the foundation for developing a *conceptual model* (generally in the form of a graphical representation) and a *site strategy* for the conservation actions in the target World Heritage site.<sup>5</sup> At the same time, the approach was designed to give considerable flexibility to

allow for the principle of “emergence” whereby local decision-makers can steer the course of the programme, while simultaneously ensuring that the ultimate conservation goals of globally significant biodiversity remained clearly in focus.

In most cases, the baseline assessments provided a rapid initial overview or “snapshot” of the World Heritage sites and surrounding landscape – useful in analyzing emerging trends (see Chapter 2). COMPACT then developed a conceptual model to ensure that the assemblage of information would effectively guide the planning process. The conceptual model captured in the form of a “diagrammatic tool” or representation portraying site-level processes, threats and opportunities (later adapted to include a more dynamic software tool capable of supporting monitoring and evaluation).

With each of these tools in place, the COMPACT teams (made up of a Local Coordinator working in tandem with the SGP National Coordinator) regularly discussed and refined the site strategy, continually reviewing and revisiting the major threats, opportunities and priority field actions – including both for the implementation of grants and the assessment of results (with specific plans developed with local stakeholders through regular public meetings).

As noted above, COMPACT staff have piloted and adapted new techniques in monitoring and evaluation to strengthen the application of the ‘3-pronged’ field methodology. One important innovation has been the preparation of conceptual models (initially developed during Phase 1 as a “one-off” exercise) through the adoption of the ‘Open Standards for the Practice of Conservation’ to guide project design, management and monitoring. The Open Standards, based on principles of adaptive management, have been developed by the Conservation Measures Partnership (CMP)<sup>6</sup> to provide a common approach to maximizing the effectiveness of conservation projects. COMPACT staff received training in interactive methods (such as sticky boards and note-cards that can be used to guide project planning processes), CMP Open Standards, as well as in a computer software tool called *Miradi* to assist with conceptual modeling, stating an explicit ‘theory of change’ to track behavioural outcomes.<sup>7</sup>

In the case of the Mt. Kenya World Heritage site, in order to improve its baseline assessment and monitoring systems, COMPACT worked with an array of partners, including the Kenya Wildlife Service and UNEP, to conduct aerial surveys of the Mt. Kenya landscape.<sup>8</sup> Following a global training workshop in the Open Standards and *Miradi* software, COMPACT staff conducted a site level workshop in these tools for conservation managers and community leaders working in the Mt. Kenya landscape. Working collaboratively, participants used the tools to identify primary conservation targets and threats to Mt. Kenya and the nearby Laikipia landscape. The group mapped strategies and results chains to overcome target threats with the joint work forming the basis for a conceptual model and work-plan for the area.

**Governance structures at COMPACT sites**

In each COMPACT site, through support provided by the UNF, a Local Coordinator (LC) was hired to be responsible for implementing the programme on the ground, and serving as a key link between communities, diverse stakeholders, the Local Consultative Body (LCB), and the SGP National Steering Committee (NSC). In addition to providing support through grants, the LCs have been engaged in a variety of activities directed at building local capacity for conservation and sustainable development. The individuals selected were chosen with an intimate knowledge of the local context and

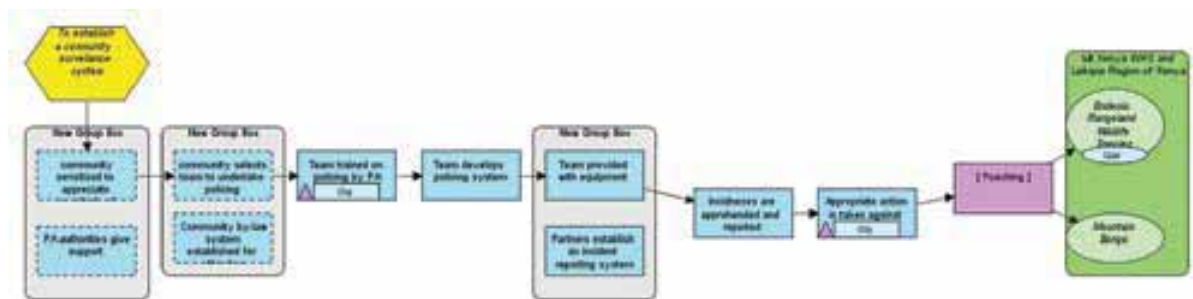
played a critical role as “facilitators” of community engagement: making connections between different stakeholders; coordinating learning exchanges among communities; and helping local groups find resources to further their grassroots conservation and livelihood initiatives.

COMPACT’s governance structure at the local level parallels that of the SGP, operating in a decentralized, democratic and transparent manner. In particular, the LCB represents a set of key stakeholders in the landscape, including the protected area management authorities, representatives of local communities, NGOs active in the region, local research institutions, local government, the private sector, as well as donors. With some degree of flexibility, in each of the World Heritage sites, the LCB (or a similar consultative body known by a different local name) has helped to ensure that dialogue, coordination and consensus-building takes place among key stakeholders at the level of the protected area. In addition, in most cases, since the LCB has a strong knowledge of the local landscape, it also makes recommendations on grant proposals to the national-level NSC for the selection and awarding of the small grants financed by the GEF.

**Review of COMPACT’s achievements**

The COMPACT model has demonstrated an ability to address community needs and concerns, and generate ecosystem benefits over time, adapting itself to the realities in the context of each protected area. In some cases, such as the

**FIGURE 1. EXAMPLE OF A RESULTS CHAIN AND CONCEPTUAL MODEL DEVELOPED BY MT. KENYA PARTNERS IN THE CONSERVATION MEASURES PARTNERSHIP**



**FIGURE 2. SUMMARY OF COMPACT PROJECTS (INCLUDING HECTARES UNDER SUSTAINABLE MANAGEMENT IN THE WIDER LANDSCAPE)**

World Heritage Sites (hectares)	Buffer-zones (hectares)	Total # of Projects	GEF Financing	Co-financing	Bene- ficiaries	
<b>Belize Barrier Reef Reserve System</b>						
Belize	142,000	85,000	74	\$2,356,000	\$1,867,000	55,500
<b>Mount Kenya National Park</b>						
Kenya	75,000	143,000	76	\$1,686,000	\$558,000	724,000
<b>Sian Ka'an Biosphere Reserve</b>						
Mexico	528,000	1,125,000	86	\$1,952,000	\$503,000	17,500
<b>Puerto Princesa Subterranean River National Park</b>						
Philippines	20,000	80,000	28	\$1,155,000	\$81,000	–
<b>The Djoudj-Djawaling Transboundary Biosphere Reserve</b>						
Senegal	16,000	760,000	19	\$624,000	\$427,000	3,300
<b>Cluster of 5 protected areas South-West anticipating World Heritage listing</b>						
Madagascar	–	275,000	92	\$1,245,000	\$452,000	190,000
<b>Morne Trois Pitons National Park</b>						
Dominica	7,000	5,000	59	\$1,268,000	\$1,674,000	64,000
<b>TOTAL</b>	<b>788,000</b>	<b>2,473,000</b>	<b>434</b>	<b>\$10,286,000</b>	<b>\$5,562,000</b>	<b>1,054,300</b>

Philippines, the government already has measures for the inclusion of civil society concerns in the protected area management boards, whilst in other cases (such as Madagascar) COMPACT has been actively shaping the evolving policy framework on the decentralization of decision-making to local level actors for natural resource management. In all the sites, however, by engaging community leaders and building extensive partnerships at local, national and regional levels, COMPACT has been able to build a network of civil society champions for the World Heritage sites.

As argued by Laven et al (2010) who analyzed empirical data on the formation of social networks in US National Heritage Areas, an investment in collaborative conservation serves to build social capital through the formation of “*networks, norms, and social trust that facilitate coordination and cooperation for mutual benefit*”. Citing research conducted by various authors investigating relations of reciprocity and the principle of ‘governing by network’, they note that polycentric structures,

although sometimes costly to initiate, are less likely to be “*damaged by defections*” and therefore more robust in the longer term.<sup>9</sup>

In its twelve or more years of work in World Heritage sites and Biosphere Reserves, COMPACT has directly supported over 430 projects (and, through partnerships, countless other initiatives) providing over US\$10 million in small grants to civil society organizations who themselves leveraged a further US\$5.5 million in co-financing (cash and in-kind support). The programme has also reached over one million beneficiaries in communities in and near World Heritage sites (see Figure 2).

Frameworks for community participation vary according to each protected area, but a common element has been an emphasis placed on ensuring involvement of a diverse array of actors in planning. Among the key principles that underpin COMPACT’s community-driven approach, several have specific relevance to initiatives at World Heritage sites worldwide which include:

- *The importance of ownership and responsibility* – global environmental problems can best be addressed if local people are involved and there are direct community benefits and ownership;<sup>10</sup>
- *The crucial role of social capital* – thoughtful investment in local institutions and individuals can help build the capacity of communities for stewardship of their environments;
- *Sharing power* – supporting community-led initiatives requires trust, flexibility and patience. Transparent processes and broad public participation are key to ensuring community engagement and strengthening civil society;
- *The cost-effectiveness of small grants* – with small amounts of funding, members of local communities can undertake activities that will make a significant difference in their lives and environments with global benefits;<sup>11</sup>
- *Making a commitment over time* – community-driven processes take time and require a long-term commitment of support.

The chapters in this volume present a set of protected area case studies which demonstrate the linkages between improving local livelihoods and enhancing biodiversity conservation. In nearly all of the cases reviewed, COMPACT has helped build a broader grassroots constituency for the conservation of the World Heritage sites, and the grantee partners have become “advocates” for conservation of the protected area with an increased understanding of the entire landscape. The process did not however “occur automatically” and was the

result of the concerted investments and efforts by SGP and UNF which supported opportunities for horizontal exchange and network-building among communities and local organizations. Sample accomplishments from each of the World Heritage sites presented below include:

- In the Belize Barrier Reef Reserve System, COMPACT supported a significant shift in the attitudes of fisherfolk and communities in the coastal zones that depend on the barrier reef. Fishing communities, once opposed to marine protected areas are now among their greatest advocates. Many fishermen are leading efforts to improve fisheries management policies and expand the boundaries of marine protected areas and defend the World Heritage site from damage from oil extraction.
- In the Morne Trois Pitons National Park, Dominica, the indigenous *Kalinago* youth in the Carib territory are involved in research and documentation on traditional herbs and fruit with the aim of creating small biodiversity enterprises, contributing to the diversification of the national tourism industry, and preserving the traditional ecological knowledge of the Carib people for future generations.
- In Mount Kenya, numerous donors have found the COMPACT modality appealing and have pledged further financial resources to support protected area conservation. The Mt. Kenya Donor Forum, initiated by COMPACT, has helped to secure some US\$35 million from donors such as the European Union to

Around the Mt. Kilimanjaro World Heritage Site, the health of the mountain ecosystem and the livelihoods of the local communities are closely intertwined.





## PRELIMINARY LESSONS LEARNED FROM A REVIEW OF COMPACT

Based on a preliminary review of COMPACT's work and a series of site visits during 2010 – 2012, some emerging observations about what makes the COMPACT model effective include:

- COMPACT takes a landscape approach, finding constructive ways to work with a diverse range of communities and stakeholders living in and caring for protected areas and the broader landscape.
- COMPACT uses a methodology that is rooted in science, while being highly participatory, engaging local people and other stakeholders at every stage of the process, recognizing that communities will become actively involved in moving forward conservation, provided they see clear benefits associated with their involvement.
- COMPACT harnesses the power of synergy, supporting a cluster of activities including the provision of small grants, capacity-building activities, networking and support with marketing. Each COMPACT programme employs a strategic approach to “finding the niche for community-based interventions in the landscape,” and creating synergies among grantees/partners.
- COMPACT's institutional structures are based on principles of sharing power, recognizing that supporting community-led initiatives requires trust, flexibility and patience. Transparent processes and broad public participation are key to ensuring community engagement. More generally, good governance is essential to the successful implementation of conservation initiatives. (Jessica Brown, WCPA)

complement COMPACT projects in the World Heritage site.

- In Madagascar, through co-financing of local projects and joint grantee capacity development and participatory monitoring, COMPACT is working with the Tany Meva Foundation, a national environmental trust fund, to engage and empower local and indigenous communities in their stewardship of the cluster of five protected areas and ICCAs as part of the World Heritage tentative list nomination for the “dry forests” of South West Madagascar.
- In Mexico estimates suggest that with COMPACT support a total of 60,000 hectares of community lands connected to the *Sian Ka'an* Biosphere Reserve (over 10 percent of the area) have been put under sustainable management and use, including community-based REDD+ projects working with the hotel sector, at a cost of roughly \$US 12 per hectare.
- In the Puerto Princesa Subterranean River National Park in the Philippines, COMPACT has supported numerous indigenous peoples organisations to secure territorial rights through Certificate of Ancestral Domain claims, restore degraded forest habitat and river banks, and monitor and protect the forest in accordance with customary law, while enhancing local livelihoods, community development, and cultural integrity.
- In the Djoudj-Djawling Transboundary Biosphere Reserve between Senegal and Mauritania, COMPACT is contributing to stronger bi-national cooperation in managing the shared ecosystem by supporting a regional network of grantees and partners and cross-border exchanges. Critical habitats for birds and other wildlife have been restored, and pressure on natural resources within the reserve is starting to ease, evident in reduced deforestation and recovery of fish stocks, while local livelihoods have improved through an array of income-generating activities.
- In the Mount Kilimanjaro National Park in Tanzania, the COMPACT site strategy has regularly informed and engaged with the Kilimanjaro National Park Outreach Programme Strategy and the Kilimanjaro Regional Development Strategy strengthening partnerships between stakeholders and linking communities with government planning processes. The creation of the Kilimanjaro network of grantees (COMPAKIN) will help sustain community-based efforts once the donor support comes to an end by providing a forum for information exchange and joint resource mobilization.

At the global level, in partnership with UNF and Conservation International's *Verde Ventures* programme,<sup>12</sup> COMPACT was able to launch the World Heritage Local Ecological Entrepreneurship Programme (WH-LEEP) to provide business development services (BDS) and biodiversity-friendly loans for sustainable small and medium-sized enterprises (SMEs) in and around the target World Heri-

tage sites. In this innovative initiative, designed to test out “riskier” market-based approaches to conservation, technical assistance and a partial loan guarantee agreement (provided by UNF to underwrite the risk of default on repayments) have been provided to encourage financial intermediary organizations to work with new start-up nature-based businesses taking advantage of the economic incentives provided by World Heritage listing.

In each of the target protected areas, the principle of “keeping your lessons close to the protected area” have made it possible to closely track progress over time, as well as to “build outward” from the protected area to local, national and regional levels. More generally, COMPACT offers valuable experience for involving communities in the co-management of World Heritage sites and other globally significant protected landscapes. The model also has relevance for the assessment and support to a broader range of governance arrangements and other “effective area-based forms of conservation” located within landscape.<sup>13</sup>

With over a decade of experience on-the-ground in diverse World Heritage sites, the experience of COMPACT would suggest that community-based initiatives and improved livelihoods, applied through a landscape approach, can generate significant benefits for the conservation of biodiversity. Lessons learned from this experience are highly relevant to World Heritage, as well as for the wider debate on the cost efficiency and effectiveness of ICDPs. The editors of the volume hope that the publication may help guide new strategies for the CBD Programme of Work on Protected Areas (PoWPA) to engage with and support community stewardship in the management and governance of protected landscapes and seascapes.

## Endnotes

1. As of June 2013, the GEF SGP currently operates in 128 countries worldwide (see <http://sgp.undp.org/>)
2. At the CBD COP7 in Malaysia in 2004, a three-way MoU was signed between the UNESCO World Heritage Centre (WHC), the CBD Secretariat, and the SGP to help disseminate and share results and lessons being produced by the programme.
3. The shared transboundary delta ecosystem

- of the Senegal River on the border between Senegal and Mauritania, and the “dry forests” of South-West Madagascar on the official national UNESCO Tentative List.
4. For example, both Mt. Kenya and Mt. Kilimanjaro, presented in this volume, reflect ecosystems with common variables (including the ecology, watershed concerns, and anthropic pressure in the buffer zone), but also differ considerably when considering other variables, including political, economic and governance arrangements.
5. The design of COMPACT was conducted by Michael Wells drawing on the seminal work of Salafsky & Margolius (1998) *Measures of Success: designing, managing, and monitoring conservation and development projects*.
6. <http://www.conservationmeasures.org/>
7. Miradi, which means “project” in Swahili, provides a user-friendly graphic interface tool to organize project information and construct diagrams and tables for project planning, management and monitoring (see: <https://miradi.org/>).
8. The surveys note the locations of degraded areas using Global Positioning Systems (GPS), making it possible to track their condition over time.
9. The research was funded in response to the US National Parks System Advisory Board’s 2006 report which noted a need to “Invest in research on National Heritage Areas [NHAs] to better understand the process of collaborative conservation and partnership networks”. The authors conclude that NHA networks generally face ‘trade-offs’ between effectiveness (tied to hierarchical relations) versus the benefits of robustness (polycentric relations), recommending that further research is required to model factors influencing network evolution in different protected area contexts.
10. See GEF Evaluation Office 2006. ‘The Role of Local Benefits in Global Environmental Programs’ Evaluation Report No. 30.
11. See GEF Evaluation Office & UNDP Evaluation Office 2008. ‘Joint Evaluation of the GEF Small Grants Programme’ Evaluation Report No. 39.
12. [www.conservation.org/global/verdeventures/](http://www.conservation.org/global/verdeventures/)
13. Under the Aichi 2020 targets established in Nagoya, Japan, in November 2010, Target 11 on protected areas includes recognition of the role played by ICCAs, sacred natural sites, and private areas in reaching the 17% coverage indicators for effective conservation.

## Chapter 2 Key planning frameworks for COMPACT's landscape and seascape approach



CHAPTER 2

# Key planning frameworks for COMPACT's landscape and seascape approach

LEONEL REQUENA AND PHILIP BALDERAMOS

## Introduction

The COMPACT programme was established in Belize in 2001 following a participatory process that brought together key stakeholders in a national forum to discuss the conservation and sustainable use of the Belize Barrier Reef Reserve System (BBRRS). The planning phase for COMPACT consisted of three components: the development of a baseline assessment and conceptual model; an awareness and educational outreach programme to promote the World Heritage site; and the elaboration of a site strategy to adaptively manage the implementation of

the programme. As a result of the consultative process, COMPACT's over-arching goal in Belize has been *"to preserve the integrity and character of the BBRRS by developing and supporting a range of conservation and sustainable livelihood activities through transparent and democratic partnerships with coastal communities and other stakeholders"*. In common with Belize, each of the COMPACT sites worldwide followed the same standard three-part methodology.

Experience from Belize illustrates how COMPACT's planning frameworks give considerable flexibility to local decision-makers

*Described by Charles Darwin in 1842 as "the most remarkable reef in the West Indies," the Belize Barrier Reef is the second largest in the world, and the largest reef complex in the Atlantic-Caribbean area.*

*Overleaf: With support from COMPACT, a local NGO has removed over 15,000 lionfish from the BBRRS. Twelve workshops were conducted in coastal communities and "lionfish hunter cards" were issued to some sixty-two tour guides and fishermen. Although lionfish contain venom, they are not poisonous when eaten, so the fish are processed and sold at restaurants. Markets are currently being developed for export, and prices for lionfish are comparable to grouper.*



while ensuring rigor – such that the overall goals of the conservation of globally significant biodiversity remain clearly in focus. This adaptive management approach reflects Theory of Change (ToC) thinking in which a logical model and mapping of anticipated results is combined with processes of iterative reflection and analysis which, in turn, shape future stages of the project (Vogel 2012, James 2011). In the design of the COMPACT model, the “three stages” of the planning framework guide the selection of grant-making in the landscape surrounding the World Heritage Site, while providing the basis for future monitoring and evaluation (Hay-Edie et al 2012).

The chapter introduces the key planning frameworks for COMPACT and explains how they were applied in Belize – including through the use of a rapid community assessment and a national awareness campaign focusing on the World Heritage site. The chapter discusses how through the consultative process of developing the baseline assessment, it was able to identify the concerns of key stakeholders (such as fishers and tourism operators) relating to Marine Protected Areas (MPAs) in the seascape. Responding to these concerns, the COMPACT site strategy has prioritized helping fishers benefit from the MPAs through co-management arrangements and alternative livelihood initiatives. The governance structure for COMPACT is also discussed. The chapter shares some key examples of project activities designed to address the site strategy, and concludes with some important programme outcomes for the BBRRS.

## The Context

### **The Belize Barrier Reef Reserve System World Heritage Site: a seascape rich in biodiversity**

The Belize Barrier Reef is the second largest in the world, and the largest reef complex in the Atlantic-Caribbean area. Described by Charles Darwin in 1842 as “the most remarkable reef in the West Indies,” the Belize Barrier Reef is a relatively recent geological formation on top of an older reef base (IUCN 1996). It spans the length of Belize, extending from the border with Mexico in the north to near the Guatemalan border in the south, where it is approximately 40 km offshore. The Belize Barrier Reef System includes three geographically important coral atolls and 1060

cayes distributed throughout the barrier reef system and atolls. The coastal zone of Belize, including the atolls, is composed of numerous fringing reefs, patch reefs, faros, mangroves, cayes and littoral forests that provide important habitats for diverse communities of terrestrial and marine life.

The Belize Barrier Reef Reserve System contains rich biodiversity and includes 65 species of scleractinian coral, over 600 species of reef fish, 247 taxa of reef flora including sponges and sea grasses, and several species of reptiles such as the American Salt Water Crocodile, and four species of sea turtles namely the Green, Leatherback, Loggerhead, and the Hawksbill Turtles. The BBRRS is home to more than 350 species of birds, 22 species of amphibians, and 40 species of mammals (COMPACT Site Strategy 2007) including the endangered Jaguar (*Panthera onca*) and the West Indian Manatee (*Trichechus manatus*).



The COMPACT site strategy has prioritized helping fisherfolk benefit from Marine Protected Areas (MPAs) through co-management arrangements and alternative livelihood initiatives.

This rich biodiversity, along with its unique archaeological and geographical features, demonstrates the global importance of the Belize Barrier Reef Reserve System. In recognition of its global importance, the Belize Barrier Reef Reserve System was inscribed under the World Heritage Convention in 1996, in a serial designation encompassing sections of the Belize Barrier Reef and the three atolls.

**Legal and management status of the World Heritage Site**

The Belize Barrier Reef Reserve System World Heritage Site covers an area of 96,300 ha (IUCN 1996) comprising seven marine protected areas: 3 marine reserves, 2 natural monuments, 1 national park, and 1 combined national park and marine reserve.

The Forest and Fisheries Departments of the Ministry of Forestry, Fisheries and Sustainable Development are the government departments responsible for the establishment and management of protected areas in Belize. In addition to the establishment and management of marine protected areas, the Fisheries Department regulates the use of marine resources including finfish, conch and lobster within the Belize Barrier Reef Reserve System by regulating the issuance of fishing licenses and boat licenses and enforcing limits on catch sizes, restricting certain types of fishing gear, and implementing closed seasons. The Archaeology Department is empowered to establish archaeological monuments in the coastal areas and, by jurisdiction, to impose management conditions or limitations on the marine protected areas as long as there are any archaeological features or antiquities in the area.

The Forest and Fisheries Departments have entered into co-management agreements with NGOs for management of four marine protected areas within the World Heritage site. These agreements vest responsibility for the day-to-day management of the respective marine protected areas with the ‘co-management entities’ which

are responsible for fund-raising. The Belize Audubon Society and the Southern Environmental Association are the co-management entities primarily responsible for the marine protected areas within World Heritage site. (See Figure 3).

In this context, key challenges to the effective management of the marine protected areas within the World Heritage Site include: lack of adequate facilities and equipment; limited capacity of the responsible institutions to meet all management needs; and difficult access to remote marine sites. To improve the management of these MPAs, the programme has provided support to the co-management entities, helping them to secure needed equipment and working to build the capacity of NGOs and Community-Based Organizations (CBOs) concerned with the World Heritage site.

**The role of communities and NGOs in the collaborative management of marine and terrestrial protected areas in Belize**

In Belize, owing to insufficient financial and human resources, the government is unable to fulfill its mandate to effectively manage Belize’s system of terrestrial and marine protected areas. As indicated above, a key strategy has been to engage NGOs in protected areas management through co-management agreements with government regulatory agencies. These NGOs, in partnership with the regulatory agencies, have been able to attract significant funding to invest in the protection, conservation and sustainable use of the country’s protected areas.

**FIGURE 3. LIST OF MANAGEMENT ENTITIES FOR THE BBRRS WORLD HERITAGE SITE**

Project	Area	Management Entity
Glover’s Reef Marine Reserve	30800 Ha	Fisheries Department
South Water Caye Marine Reserve	29800 Ha	Fisheries Department
Sapodilla Cayes Marine Reserve	12700 Ha	Southern Environmental Association
Blue Hole Natural Monument	4100 Ha	Belize Audubon Society
Half Moon Caye Natural Monument	3900 Ha	Belize Audubon Society
Laughing Bird Caye National Park	4300 Ha	Southern Environmental Association
Bacalar Chico National Park and Marine Reserve	10700 Ha	Fisheries Department



Through COMPACT support, many different stakeholders (such as NGOs, fisherfolk and tour operators) have been able to participate actively in the decision-making related to the co-management of the marine protected areas within the World Heritage Site.

Through the involvement of NGOs in the co-management of protected areas, local communities and local stakeholders (such as fisherfolk and tourism operators) are able to participate actively in the decision-making related to the marine protected areas of the World Heritage Site. Community stakeholders are represented on the boards of directors of NGOs responsible for co-management, as well as on the advisory bodies of the marine protected areas managed by the Fisheries Department.

### ***The COMPACT planning frameworks and their application in Belize***

As noted earlier, the COMPACT methodology relies on three closely linked elements: a *baseline assessment*, which serves as the foundation for the COMPACT *conceptual model*, which in turn informs the local *site strategy*. These three elements form the basis for planning at each of the target World Heritage Sites, enabling COMPACT to pilot its landscape-level grant-making in a range of different ecological and socio-economic situations. The approach is designed to allow flexibility for planning at the local level, while ensuring that conservation goals remain clearly in focus. The adaptive management approach reflects current Theory of Change thinking, in which logical models are blended with reflective, participatory elements. Consistent with key elements of the Theory of Change concept, the COMPACT planning frameworks provide the means to analyze the context of the given site, explore assumptions,

frame a hypothesis, and assess evidence within a feedback process that continually shapes the approach going forward (Vogel 2012, Reeler 2007).

In Belize, grants were awarded to three partner organizations to spearhead the process of developing the baseline assessment, conceptual model and site strategy, and to undertake an educational campaign to promote awareness of the World Heritage Site. The partner NGOs worked together to involve key stakeholders in a series of activities that included data collection, focus group discussions, site visits, a community awareness campaign and a national forum to launch the COMPACT programme. The initial planning process involved convening several meetings and workshops in coastal fishing communities where local stakeholders were able to provide suggestions and recommendations that were incorporated into the conceptual model and site strategy.

### **The Baseline Assessment**

At the beginning of the consultation process at each participating World Heritage Site, COMPACT conducts a thorough *baseline assessment*, working closely with key stakeholders and local institutions. The baseline assessment documents the current knowledge of the biodiversity status and trends in and around each World Heritage Site (or cluster of protected areas comprising the site) identifying, for example, conservation objectives, economic activities, major threats, key management issues, existing

*The COMPACT baseline assessment identified common threats affecting the World Heritage site ranging from unsustainable fishing; tourism; marine dredging and mining; along with land-based threats such as coastal development, aquaculture, and agriculture on the mainland.*



programmes and relationships with local communities. Socio-economic, institutional and cultural questions, such as the livelihood sources for local communities and the capacities of local and national organizations are also explored. Consultations are held to ensure active participation by stakeholders and the results of the baseline assessments are discussed and finalized with stakeholders through regular meetings (Brown et al 2011).

In 2001 a baseline assessment was conducted in Belize in order to collect key information on the biodiversity of the marine protected areas within the Belize Barrier Reef Reserve System. This included assessment of the threats these areas are facing, the management status of the marine protected areas within the World Heritage Site, and the communities and stakeholders that use and/or influence the conservation and protection of these areas. The information for the development of the baseline assessment was gathered from a variety of available resources, including studies of the marine protected areas and the barrier reef system, research reports and management documents, as well as through interviews with key agencies responsible for management of the site.

The baseline assessment identified that there were common threats affecting the site from activities such as unsustainable fishing, unsustainable tourism practices, and dredging and mining within the marine protected areas, along with land-based

threats such as coastal development, aquaculture development and agriculture development occurring on the mainland.<sup>1</sup>

A key component of the baseline assessment in Belize was a rapid community assessment exercise, based on the methodology of Participatory Rural Appraisal (Chambers 1994), conducted in selected coastal communities to complement the findings of the baseline assessment. Through personal interviews and focus group discussions the community assessment helped to gauge the level of knowledge within local communities regarding the marine protected areas and the World Heritage Site. It also looked at the relationship of the local communities to the biodiversity of the protected areas, including local perceptions of the status of, and threats to, the biodiversity of the protected areas.

The community assessment highlighted the major livelihood activities occurring within and/or impacting the site, the major threats affecting the site, and the socio-economic relationships within the communities involved. It found that the Belize Barrier Reef Reserve System was important to all the coastal communities involved in the assessment. For some communities, tourism was the most important activity, while for others fishing was the most important. Most of the persons interviewed were willing to participate in and support activities that aim to conserve the integrity of the barrier reef.



Through the community assessment, two communities were identified as particularly important for their linkages to the World Heritage Site: Sarteneja Village, whose economy relies heavily on fishing activities throughout the entire site; and Hopkins Village because of its involvement in the tourism sector and the traditional cultural and spiritual links of the Garifuna people to the resources of the World Heritage Site.<sup>2</sup>

### The Conceptual Model

The *conceptual model* is “the foundation of all project design, management and monitoring activities” (Margoluis and Salafsky 1998). It is described as a diagram or model of a set of relationships among certain factors that are believed to impact, or lead to, a target condition. A good conceptual model should:

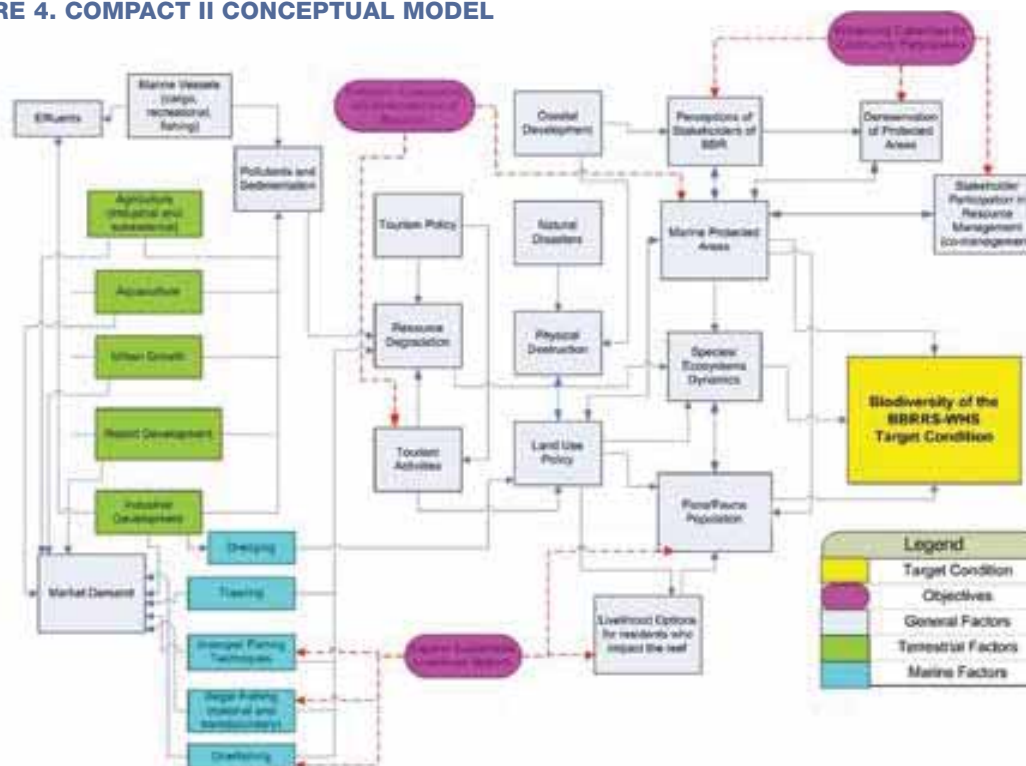
- Present a picture of the situation at the programme site;
- Show assumed linkages between factors affecting the target condition;
- Present only relevant factors;

- Be based on sound data and information; and
- Result from a team effort.

The model is first assembled to present a picture of the area of focus prior to the start of the project or programme. This visualization is used to prioritize the key threats to the target condition that the initiative will address (Margoluis and Salafsky 1998).

In Belize, the conceptual model was developed using the following approach. First, a diagram was developed to illustrate the relationships between certain factors affecting either the site or the intended result of conserving the biodiversity of the BBRRS World Heritage Site. Next, key threats were identified, along with contributing factors and opportunities. This step, in turn, led to the articulation of three objectives for COMPACT in Belize: (1) to expand sustainable livelihood options; (2) to ensure the protection, conservation and sustainable use of resources; and (3) to enhance capacities for community participation. The conceptual model below illustrates how these elements were formulated against the target condition, noting threats, opportunities and other factors, and feeding into the articulation of the three main objectives.

FIGURE 4. COMPACT II CONCEPTUAL MODEL



## The Site Strategy

The process of formulating the site strategy in each COMPACT landscape/seascape is likewise based on the methodology articulated by Margolius and Salafsky (1998) in their handbook, *Measures of Success: Designing, Managing and Monitoring Conservation and Development Projects*. As noted earlier, during the conceptual model phase key threats and opportunities affecting the biodiversity of the area are identified. Drawing on the conceptual model one can identify factors having an impact on the target condition and, in turn, determine and prioritize specific actions that are likely to have a positive impact on the conservation of the target biodiversity. This process forms the basis of the site strategy, which guides the allocation of resources, implementation of project interventions and the assessment of results.

In the case of Belize, an important aspect of the participatory process for developing the COMPACT site strategy was the implementation of a national awareness campaign to promote the World Heritage Site. The BBRRS World Heritage Site was established in 1996, and no public awareness campaign on the significance or importance of the protected area listing had occurred during or after the designation.

The first national awareness campaign on the existence and importance of the BBRRS World Heritage Site, entitled “COMPACT: A Call to Action” was carried out in parallel with the development of the site strategy. The awareness campaign included: a national media campaign in English and Spanish on radio, on television and in newspapers; a mobile exhibition to coastal communities; and the actual launch of the COMPACT initiative in Belize. This awareness campaign was an important element of the intervention because it supported other aspects of the COMPACT programme’s development, and contributed toward achieving the initiative’s goals. In addition to increasing public awareness of the BBRRS World Heritage Site, it encouraged civil society to participate in natural resource management and it enabled community groups, traditional users and other stakeholders within the World Heritage Site, to identify additional livelihood options, and become more receptive to co-management.<sup>3</sup>

## Elements of the Site Strategy developed for the World Heritage Site

The BBRRS-WHS site strategy was developed to guide COMPACT in channeling technical and financial support in order to meet the key goal: “to demonstrate how community-based initiatives can significantly increase the effectiveness of biodiversity conservation within the BBRRS- World Heritage Site by complementing and adding value to existing conservation programs being implemented in support of the management and sustainable use of the protected areas which comprise the BBRRS World Heritage Site.” The site strategy was developed in a collaborative spirit by a consortium of Belizean NGOs<sup>4</sup> that had been engaged for this purpose. They consulted with several communities, agencies and individuals to formulate the site strategy.

Three core objectives were identified as part of the COMPACT Site Strategy for Belize:

1. *To expand the sustainable livelihoods options for community groups and community based organizations that impact the reef system, with a view to reducing the stressors on the Belize Barrier Reef Reserve System World Heritage Site.*
2. *To promote the protection, conservation and sustainable use of the resources of the Belize Barrier Reef Reserve System World Heritage Site by community groups, community based organizations and the general public.*
3. *To develop and/or enhance the management capacities of the community groups who use and impact the resources of the Belize Barrier Reef Reserve System World Heritage Site, as well as those who participate in co-management of the protected areas.*

Within these broad objectives, several thematic areas were derived from the discussions with stakeholders and target beneficiaries and from the elements of the conceptual model. An effort was made to identify areas where there were gaps in skills and management capacity, or where there were opportunities for the sustainable use of marine resources. Based on their potential to contribute to achieving the three core objectives, the following thematic areas were identified: skills development, product development, resource management, support services, pollution reduction, public awareness and education, and organizational capacity-building.



*The first national awareness campaign on the existence and importance of the BBRRS World Heritage Site, entitled "COMPACT: A Call to Action" was carried out in parallel with the development of the site strategy.*

In turn, the activities within these thematic areas were intended to achieve the following results:

- Better protected areas management within the BBRRS;
- Greater awareness of biodiversity and conservation needs;
- Community benefits;
- Enhanced stakeholder communication, consultation, and consensus-building; and
- Dissemination of lessons learned and best practices.

The targeted programme beneficiaries include community groups, fishing cooperatives and associations, local tourism organizations, co-management entities and conservation NGOs. It should be noted that one of the issues that had been revealed by the baseline assessment was the degree of alienation felt by the fishing communities toward the MPAs, which they viewed as having been declared in order to restrict fishers' access to traditional fishing areas and to favour tourism development. Thus, an important priority in the COMPACT site strategy was to help fishers benefit from the MPAs through co-management arrangements and alternative livelihood initiatives.

At the project level, it was envisioned that COMPACT funding would be complemented by

leveraging co-financing from an array of partners, including community groups, regulatory agencies and other in-country donors.

Since the site strategy was completed in 2001, COMPACT has funded approximately 50 community-based projects in more than twelve coastal communities. These initiatives have led to greater awareness and acceptance of marine protected areas by the user communities. The management capacity of the marine protected area co-managing partners has been strengthened through the provision of equipment and infrastructure. The livelihoods of members of the key user groups have been improved and local communities are now supportive of conservation initiatives and have played a key role in the co-management of the marine protected areas. A decade on, projects funded by COMPACT Belize are helping to achieve the overall goals envisioned during the initial planning phase for COMPACT's work in the BBRRS World Heritage Site.

### **Governance of COMPACT**

COMPACT's governance structure at the country level parallels that of the SGP, operating in a decentralized, democratic and transparent manner (Brown et al 2011). The COMPACT Local Coordinator is responsible for the overall implementation of the COMPACT Programme

*The COMPACT Local Coordinator (pictured left) builds constructive relationships with the local government, the protected area management authorities, and other important stakeholders in the development of the site strategy and development of project proposals.*



in each project site, and for the achievement of the objectives established in the COMPACT site strategy. The Local Coordinator reports to the SGP National Coordinator and to the SGP Central Programme Management Team based in the UNDP offices in New York. The Local Coordinator also regularly informs the UN Resident Coordinator about the status of project implementation. The Local Coordinator builds constructive relationships with the local government, the protected area management authorities and other important stakeholders.

Two important bodies provide technical support to the work of COMPACT: the Local Consultative Body (LCB), and the National Steering Committee (NSC). The Local Consultative Body represents key project stakeholders, including the relevant protected area management authorities, representatives of local communities, NGOs active in the region, local research institutions, local government, the private sector, and donors. The LCB helps ensure that dialogue, coordination and consensus-building take place among key stakeholders at the protected area level. It provides technical support to the grant-awarding process by advising on the technical merits of projects proposed for consideration, and helps ensure that the projects COMPACT supports endeavour to address root causes of threats to the site.

The National Steering Committee is composed of voluntary members from NGOs, academic and scientific institutions, other civil society organizations, and government, with a majority of members coming from the non-governmental sector. The UNDP Resident representative or Country Director serves on the NSC. The NSC provides overall guidance and direction to the country programme, and contributes to developing and implementing strategies for programme sustainability at country level. The NSC is responsible for the review, selection and approval of projects, and for ensuring that their technical and substantive quality are in line with the objectives of COMPACT. The NSC members are expected to support the country programme in resource mobilization and in mainstreaming COMPACT lessons learned in national development planning and policy-making. They are encouraged to participate in pre-selection project site visits and in project monitoring and evaluation.

In the case of Belize, the COMPACT Local Coordinator is based within the SGP team in the UNDP Country Office and complements the work of the SGP at country level. The SGP team in Belize has overall responsibility for the delivery of the programme. The members of the LCB in Belize bring considerable experience and technical skills to the board, and help to ensure

that COMPACT complements the efforts of other conservation projects being implemented in and around the Belize Barrier Reef Reserve System World Heritage Site. The National Steering Committee endorses the strategic plans of both SGP and COMPACT, with the SGP country programme strategy focusing primarily on terrestrial projects and the COMPACT site strategy focusing primarily on projects in the marine realm.

**Key Outcomes and Observations**

Building on the use of the COMPACT planning frameworks, implementation of the COMPACT programme in Belize over the past decade has resulted in a number of outcomes that advance progress in meeting the original targets. Among these outcomes are: greater awareness of the BBRRS World Heritage Site within local communities, increased participation of stakeholders in co-management and decision-making processes, and the creation of alternative livelihood options for fishers and other resource users.

The baseline assessment revealed a lack of awareness of the World Heritage Site among coastal communities along the Belize Barrier Reef Reserve System. Thus, emphasis was placed on helping to “engage local users about the global value of

the resource for which they are stewards” (Hay-Edie et al 2012). In this regard, the COMPACT programme supported grantee organizations to promote and conduct educational efforts focusing on greater awareness of the World Heritage Site. Such efforts included educational activities within the primary and high school curricula, educational field visits to the BBRRS World Heritage Site, science fairs, community meetings, workshops and public discussions. These educational activities resulted in greater appreciation and support for the protection and sustainable use of the resources of the protected areas.

In the case of Belize COMPACT support has contributed to greater participation of stakeholders including fishers in co-management and decision-making related to the marine reserves. Prior to COMPACT many fishers did not understand the purpose of marine protected areas, nor did they accept and support their management. In fact, many fishers openly opposed MPAs and did not comply with the regulations governing these protected areas. This situation led to many misunderstandings and conflicts between the fishers and the MPA management authorities.

Over the past decade COMPACT-supported initiatives, including public awareness campaigns and the inclusion of fishers in key decision-



*Prior to the introduction of COMPACT in Belize, many fishing communities were openly opposed to the marine protected areas within the BBRRS, and did not comply with the regulations governing the protected area.*

making roles (e.g. on the boards of directors of co-management entities and the advisory bodies of the MPAs) has shifted this dynamic. Many fisher folk have changed their attitude and behavior towards the MPAs, demonstrating greater understanding of and appreciation for MPAs. As the issue of fishers feeling excluded from the MPAs has lessened, fishers have become more receptive to the conservation and management of the MPAs. Many have actively identified opportunities to participate in efforts to reduce threats to the resources of the World Heritage Site. An example is the community stewardship project implemented by the Toledo Institute for Development and Environment in the Port Honduras Marine Reserve, which highlights the importance of protecting and managing the marine resources within the reserve for the livelihood security of the user groups (Ramon Frutos 2010). Fisher folk are now more directly involved in, and supportive of, co-management arrangements within the BBRRS-WHS. As a result, these stakeholders are now able to share their vast practical knowledge of the resource and their capabilities to assist in the effective co-management of the marine protected areas, while expanding options to continue to generate sustainable livelihoods from the resources

of the BBRRS-WHS. This progress is reflected in the ‘community stewards’ initiative wherein fisher folk are empowered to support marine protected areas management and are now leading the way in introducing a policy of ‘managed access’ to fisheries resources (See box below).

Another key outcome was in the area of creating alternative livelihood options for fishers and other resource users within the World Heritage Site. The findings of the COMPACT baseline assessment identified unsustainable fishing and unsustainable tourism practices as two of the main threats affecting the seascape. At the same time, the community assessment indicated that fishing and tourism were the two major sources of livelihood for the communities living in the coastal zones.

While both industries were of major interest and benefit to communities, the situation with fishing was facing particular challenges. From 1995 onwards, the fishing industry in Belize was experiencing a sharp decline in available fisheries resources, at the same time that an increasing number of new fishers were entering the sector, thereby causing the catch-per-unit-effort of fishers to be drastically reduced. Many fishers were carrying out unsustainable fishing practices in order

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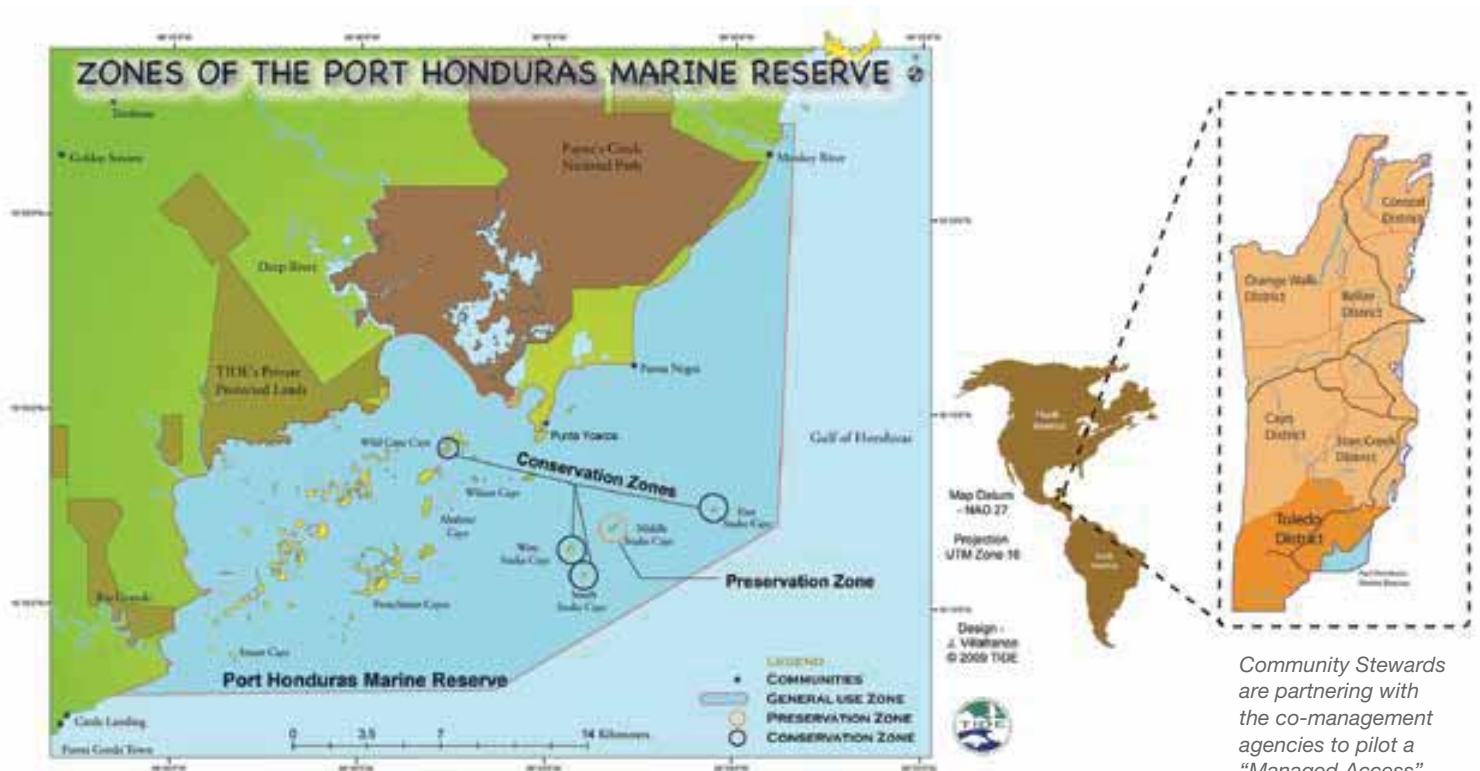
## THE COMMUNITY STEWARDS PROGRAMME

The Community Stewards Programme enhances the capacity of resource users whose livelihoods depend on the Port Honduras Marine Reserve (PHMR) and the Payne’s Creek National Park – protected areas co-managed by the Toledo Institute for Development and Environment (TIDE). TIDE initiated the programme in 2009 with the aim of involving resource users, such as fishers and tour guides, in the management of these protected areas. Objectives of the initiative, supported by COMPACT and other donors, include: raising awareness about the importance of protecting marine life and the World Heritage Site; increasing stakeholder participation in the decision-making processes related to co-management of the protected areas; and providing alternative livelihood opportunities for local communities.

Community Stewards are empowered to support protected areas management through their direct involvement in conservation and sustainable livelihood activities within the protected areas. The programme helps participants to develop a foundation of knowledge and skills, while creating opportunities for exchange of experience among communities, both within Belize and in neighboring countries. In one activity, fishers drew on their first-hand experience with marine resources to provide environmental education activities for local schoolchildren in coastal communities such as Monkey River and Punta Negra. Now in its third phase of implementation, the Community Stewards Programme has the active involvement of 25 resource users from coastal and inland communities in the buffer zones of PHMR and Payne’s Creek National Park,

as well as a large private protected area also managed by TIDE.

With the recent introduction of “managed access” within the PHMR, the Community Stewards Programme is serving as a pilot model for stakeholder participation in decision-making about fisheries resources. Managed access is a fisheries management tool that protects stocks by identifying the traditional users within a fishing area and granting these traditional users exclusive rights to fish commercially within the area. The experiences and lessons from this pilot initiative will be used to develop and implement managed access policies in other marine protected areas throughout Belize, including those within the BBRRS World Heritage Site.



Community Stewards are partnering with the co-management agencies to pilot a “Managed Access” initiative within the Port Honduras Marine Reserve. The approach is being piloted in two marine protected areas: the Glovers Reef Marine Reserve, which lies within the BBRRS World Heritage Site; and the Port Honduras Marine Reserve, an important marine protected area buffering the BBRRS World Heritage Site.

to maintain or increase their share of the resource and the associated income. Some fishers were looking for other opportunities but were unable to retire from fishing because they lacked the skills or resources to transfer to another occupation. At the same time, experienced fishers possessed marine skills such as boat handling, local knowledge of the marine environment and navigation – skills in short supply within the tourism sector, which was in need of experienced and qualified marine tourism service providers.

COMPACT helped to “bridge the gap” between the demand for trained marine tourism service providers and the fishers who were interested in tourism. Through COMPACT fishers were able to make the transition from fishing to tourism. COMPACT provided support for projects to train fishers as tour guides, scuba dive masters and sports fishing guides. The involvement of fishers in alternative livelihoods in the tourism sector has significantly reduced threats from tourism activities and facilitated the transition of fishers to the tourism industry in many coastal communities. The fishers who have made the transition to the tourism sector have become better stewards of the marine resources and serve as role models within their respective communities.

The “Managed Access” initiative is currently being piloted in two marine protected areas: the Glovers Reef Marine Reserve, which lies within the BBRRS World Heritage Site, and the Port Honduras Marine Reserve, an important MPA buffering the World Heritage Site. Community Stewards are partnering with the co-management agencies to pilot managed access within the Port Honduras Marine Reserve. As these pilot efforts move forward, the managed access approach will be considered for potential application within other marine protected areas of Belize. This potential change in the current policy of open access fishery in Belize would be a major contribution to sustainable management of fisheries resources, and the health of the marine environment generally, in and around the BBRRS World Heritage Site environment, in and around the threatened ecosystem.

**Conclusion**

The COMPACT planning framework methodology is based on a three-pronged approach in adaptive management with cycles of collaborative ‘learning by doing’ based on the implementation of projects working with local communities. This methodology ensures rigor by assessing and documenting the actual

condition of the site. The process is highly participatory, engaging local communities and other relevant stakeholders in identifying threats and opportunities that impact the site at a landscape/seascape scale. The process involves local communities and stakeholders in the decision-making process and documents the efforts, achievements and results as conditions within the site change. The COMPACT process has demonstrated its effectiveness in the conservation of globally important protected areas, including World Heritage Sites, in the context of changing site-specific ecological and socio-economic conditions.

Over the past decade of work in Belize, COMPACT's investments in changing attitudes, empowering community groups, engaging resource users and other stakeholders have resulted in increased communication, cooperation and coordination within the BBRRS World Heritage Site. These developments have come about as the result of a gradual process based on dedication and commitment. Based on a review of the first baseline carried out in 2001, there are now growing levels of community advocacy to protect the Belize Barrier Reef from the many threats posed by illegal fishing, mining and oil exploration.

## Endnotes

1. COMPACT Baseline Assessment 2001.
2. COMPACT Site Strategy, 2001.
3. *Association of National Development Agencies (ANDA) Mid Term Progress Report, (2001)*; and COMPACT Site Strategy 2003.
4. These groups included Programme for Belize, Belize Enterprise for Sustainable Technology and The Association of National Development Agencies. All parties that were consulted during the site strategy development process gave freely of their time and knowledge.



**Chapter 3 COMPACT in the Sian Ka'an landscape:  
Working with indigenous and local  
communities in key thematic areas**



CHAPTER 3

# COMPACT in the Sian Ka'an landscape: Working with indigenous and local communities in key thematic areas

JULIO MOURE



## Introduction

Since 2000 COMPACT-Mexico has been working in close partnership with communities in the Sian Ka'an Biosphere Reserve and World Heritage Site. Located on Mexico's eastern Yucatan Peninsula, in a region known as "the heart of the Mayan culture," it is a landscape rich in the cultural heritage of its past and present-day inhabitants, in particular indigenous peoples. In the 12 years since its establishment, COMPACT-Mexico has financed approximately 100 small grants projects in and around Sian Ka'an. Central to COMPACT's approach in this region has been the integration of Mayan culture, language and traditional knowledge in all aspects of its work.

This chapter presents the work of the Community Management of Protected Areas Conservation Programme (COMPACT) in the Sian Ka'an landscape and seascape. It tells the story of how COMPACT, using a highly participatory methodology based on dialogue, has forged partnerships with local communities to improve conservation of the World Heritage site, while improving local livelihoods and helping to stem the loss of Mayan languages and culture. While the focus here is on experience resulting from a decade of work in Sian Ka'an, this reliance on participatory methodologies characterizes COMPACT's approach in each of the eight sites where it is working.

In particular, this chapter will discuss how COMPACT's activities in Sian Ka'an have been clustered around key "thematic areas" related to the coast, the forest and the preservation of Mayan culture. This clustering of activities is an important aspect of how COMPACT works at the landscape level in Sian Ka'an, as well as in other sites worldwide. The chapter briefly introduces project elements of COMPACT's work in Sian Ka'an, including sustainable fisheries management, community-based

*The Sian Ka'an Biosphere Reserve and World Heritage Site is located on Mexico's eastern Yucatan Peninsula in a region known as "the heart of the Mayan culture". It is a landscape rich in biodiversity, cultural heritage, and the traditional knowledge of indigenous peoples.*



*Overleaf: The archaeological site of Tulum within the World Heritage Site is major tourist attraction on the 'Riviera Maya'.*

tourism activities, apiculture and carbon capture. In addition, the chapter highlights COMPACT's experience with reviving traditional knowledge in farming and handicrafts, along with empowering community-based networks to market local products under a common brand. It explores the important role of exchange among communities and between countries in helping to introduce new methods and build collaborative networks. The chapter reflects on how COMPACT's approach of facilitating collaboration within thematic areas, over time and with relatively modest investment, has helped to scale up individual projects to broader initiatives within the Sian Ka'an landscape.

### The Sian Ka'an Biosphere Reserve and World Heritage site

The Sian Ka'an Biosphere Reserve and World Heritage Site is the largest protected area in the Mexican Caribbean, encompassing terrestrial and marine environments of high biological diversity with unique geological features. Inscribed on the World Heritage List in 1987, Sian Ka'an was first recognized as Biosphere Reserve in 1986, with a core zone composed of two terrestrial areas and one marine area. Land-sea linkages are important in the Sian Ka'an Biosphere Reserve and World Heritage Site, as the area spans almost one-third of the Caribbean coast of Mexico. Its location on a partially emerged coastal limestone plain has resulted in unique geological features, such as sink-holes (*cenotes*) and underground rivers, important for their high biodiversity and species endemism. Its 650,000-ha area encompasses a diversity of coastal and marine environments representative of the Caribbean Sea and the Yucatan Peninsula, including sandy beaches, rocky beaches, sand dunes, mangroves, shallow bays, and coral reefs.

Sian Ka'an protects a 110-km portion of the Meso-American Barrier Reef, the second largest in the world, rich in marine biodiversity, including 161 species of reef fishes. On the terrestrial side, as part of the Sian Ka'an-Calakumul corridor, it contributes to connectivity across the forested landscape within the wider Meso-American Biological Corridor shared across different countries in the region. In addition to high floristic diversity and the presence of many endangered mammal species, the Biosphere Reserve supports the second largest community of aquatic birds in

Mexico and is a key part of the migratory bird corridor between North and South America (López-Ornat, 1990). There are 346 bird species registered in the Reserve, including resident and migratory species (MacKinnon, 1992). With more than 300,000 hectares of aquatic environment it supports the largest crocodile habitat found in any of Mexico's protected areas (Lazcano-Barrero, 1990), and is particularly rich in amphibians and reptiles. A preliminary listing of over 100 mammal species found in the Biosphere Reserve includes manatees, dolphins, four species of whales and 39 species of bat.

*Sian Ka'an* can be translated from the Yucatec Maya language as "where the sky is born" or "gift from the sky." Its landscape is rich in cultural values, an expression of the past and present Mayan communities living in the area. Sian Ka'an is located in the ancient Mayan regions of Cohuah and Uaymil, likely inhabited during the pre-Classic and Classic periods. There are twenty-three known archeological sites of pre-Hispanic culture in the Biosphere Reserve, and discoveries of human remains, ceramic pieces, and other artifacts have been dated up to 2,300 years old. Today, small

*Sian Ka'an can be translated from the Yucatec Maya language as "where the sky is born" or "gift from the sky." The protected area safeguards a 110-km portion of the Meso-American Barrier Reef, the second largest in the world.*



communities in and around the Reserve are predominantly of Mayan origin and a number of indigenous languages are spoken in the area. The population is estimated at 2,000 inhabitants, with most settlements concentrated in the coastal regions. The Mayan communities hold possession of the land in the form of *ejidal* land tenure.

The linkages between the cultural and natural values of the Sian Ka'an landscape are key. The high degree of biodiversity found within the Biosphere Reserve and in the surrounding areas and its conservation is, in large part, a legacy of the traditional knowledge and practices of the Mayan people and their management of the landscape over the centuries.

### **Conservation threats and challenges to sustainable development in the Sian Ka'an landscape**

Although it is in the least developed part of Quintana Roo, the Sian Ka'an Biosphere Reserve and World Heritage site still faces a number of threats. Unregulated tourism development, overfishing, forest fires, cultivation of coconut in the coastal dunes, and the uncontrolled extraction of resources are some of the main activities threatening the protected area. Tourism has been explosive in the region in recent decades, transforming Cancun from a fishing village to the largest tourism destination in Mexico, and extending south along the length of the coast of Quintana Roo. Ongoing development along the coast contributes to the contamination of the water and is altering the hydrology of the area, compromising the integrity of the estuarine, mangrove and coral reef communities.

New developments in agriculture pose further threats to the region's landscape. Growing reliance on intensive industrial inputs, "improved" seeds (e.g. hybrid and transgenic), fertilizers and pesticides, and the use of machinery are all having a major impact on land use, contributing to soil erosion, groundwater contamination, and the loss of biodiversity and agro-biodiversity. At the global level, the loss of ecosystem services formerly provided by these natural systems is significant (Boege 2002).

A number of external pressures are threatening local culture and livelihoods, in particular of

the indigenous peoples living in the Sian Ka'an landscape. Along with financial and ecological debt, the market economy is leaving a social deficit that manifests itself in massive poverty, the loss of indigenous language and culture, out-migration from the region, and unemployment affecting many parts of society, including indigenous peoples. The region is recognized within the 'National Programme for Priority Regions' as a marginal area affected by extreme poverty, which has led to forced migration and high levels of malnutrition. A further challenge to traditional culture is the prevalence of mass media, which now reaches all corners of the world, presenting a Western, market-based worldview and way of life, accompanied by consumption patterns that often erode the vital and spiritual relationship between human beings and their environment.

### **Rich cultural heritage and traditional knowledge**

Despite these challenges, the Sian Ka'an landscape is rich in cultural assets and social capital that can form the basis for endogenous, sustainable development. The present-day Mayan culture, with all the contradictions and challenges facing it, possesses a rich heritage of knowledge and management practices (often referred to as Traditional Ecological Knowledge or TEK). While the concept of biodiversity is very recent, the practices related to its sustainable use and conservation by indigenous peoples span millennia. The territories inhabited by indigenous peoples, such as the Maya, are rich in biodiversity, constituting a significant contribution to the global inventory. In short, the living cultural heritage of this landscape and its inhabitants form an inextricable part of its global significance.

The Mayan cultures have lived for years with the ecosystems of the Sian Ka'an landscape, and have co-evolved with them, choosing to use some plants and animals, cultivating others, so that their practices have transformed the landscape and its biodiversity (Toledo and Barrera-Bassols 2008). With the selection of wild species came the development of cultivated plants that were distributed worldwide and are now the basis of the global food system. Indigenous production systems have long sought to optimize their use of local resources and adapt to environmental conditions,

based on shared knowledge, technologies and ways of organizing work that are based on the preferences and values of the group (Bonfil Batalla 1994). Importantly, this experience is not only restricted to food. Living alongside the biodiversity of the region has required these communities to develop complex ways of using the plants, insects and animals around them for food, medicine, clothing, and shelter.

This traditional knowledge and the associated management practices offer a strong foundation for efforts to foster biodiversity conservation and sustainable development in the region. One of the questions facing COMPACT in the Sian Ka'an region has been how to bring together scientific knowledge and indigenous knowledge systems in an initiative that respects the natural ecosystem while helping to meet basic human needs?

**The COMPACT programme in Sian Ka'an: Planning frameworks based on a participatory methodology**

COMPACT Mexico was launched in Sian Ka'an in 2000, building on the substantial experience of UNDP/GEF Small Grants Programme prior decade of work in the Yucatan Peninsula.

COMPACT staff relied on a highly participatory planning process and bilingual outreach for the three basic planning elements in the COMPACT methodology described in chapter 2. Over the first seven months, the Local Coordinator conducted numerous meetings with community-based groups, NGOs, environmental authorities, local authorities and academics to identify challenges and help frame how COMPACT might help support the communities in addressing them.

As a result of this consultative process, participants identified the central goal for COMPACT to *“provide livelihood opportunities for local residents while resisting the negative effects of the very rapid rise of tourism along the coastline... developing sustainable ecotourism approaches to benefit local communities as an alternative to ‘selling out’ areas of coastline to large-scale private developers”*. A bilingual document was produced in Spanish and Maya, using simple language and drawings by a local artist. It served as a starting point to explain and understand the goals and operations of the programme. As one leader observed in reflecting upon COMPACT’s work some years later, *“those seven ‘wasted months’ [of early consultation] were among the most important of the programme.”*



*COMPACT participatory planning methodologies are not only a function of the initial stages of project preparation, but represent a constant cycle of iterative learning and community feedback.*

This participatory approach continues to be central to COMPACT’s programme in Sian Ka’an, and is founded on principles of empowerment and endogenous development, such as those articulated by Paulo Freire. The programme seeks to create answers to problems in dialogue with people in order to find, in their plain language, the seeds of solutions to multi-faceted problems that emerge from a long history of marginalization. In this view, knowledge is not transmitted, rather it is *“under construction meaning the act of education is not a transfer of knowledge, but rather the enjoyment of building a common world”* (Friere 2005).

Each step is defined in a participatory manner, through a diagnostic and collective planning process that creates a framework for responsibility and cooperation among grassroots groups, participating NGOs and other actors. The aim is to trigger new attitudes, raise awareness and strengthen self-development. Under this methodology, capacity-building is seen as a process of lifelong learning – one that moves horizontally from practice to knowledge, from knowledge to vision, and from vision to action (Friere in Souza 2011). Such an approach based on collective learning encourages teamwork and transforms competition into emulation, alongside the fundamentals of creativity, respect and commitment.

Through this participatory approach, COMPACT and partners developed a framework for action based on principles that include:

- **Grassroots democracy** – promoting the democratic participation of men and women from the communities in analyzing problems and finding solutions to them;
- **Participation of women** – ensuring that gender equity is considered in all aspects of COMPACT’s planning, and encouraging the participation of women in the the process of identifying problems and developing projects;
- **Exchange of experience** – promoting the exchange of experiences among all participants in COMPACT programmes, especially within areas of realted activity; and
- **Dissemination of experience** – supporting activities to systematize and disseminate lessons learned from COMPACT’s activities and the programme as a whole.

## Governance structure

The governance structure in Sian Ka’an is similar to that of COMPACT in other countries, as is described in this volume. The advisory structure at the local level parallels that of SGP, operating in a decentralized, democratic and transparent manner. A local selection committee of ten individuals, with diverse areas of expertise and serving in a voluntary capacity, makes decisions on funding of projects in coordination with the Local Coordinator and the SGP National Steering Committee. Reflecting the programmatic approach of COMPACT in Sian Ka’an, the selection committee members work in thematic clusters (e.g. forestry, fisheries, apiculture, tourism and Mayan culture) to advise the Local Coordinator on programme planning in these areas and to offer their expertise to COMPACT grantees.

Governance of the COMPACT programme in Sian Ka’an is based on consultation, dialogue and consensus with communities and organizations. COMPACT has built partnerships with a wide range of government, non-governmental and academic institutions at all geographic levels. These include the national park management agency as well as local, national and international NGOs. These stakeholders contribute substantively to programme planning and participate in decision-making about activities and future directions.

## COMPACT’S key areas of work in Sian Ka’an

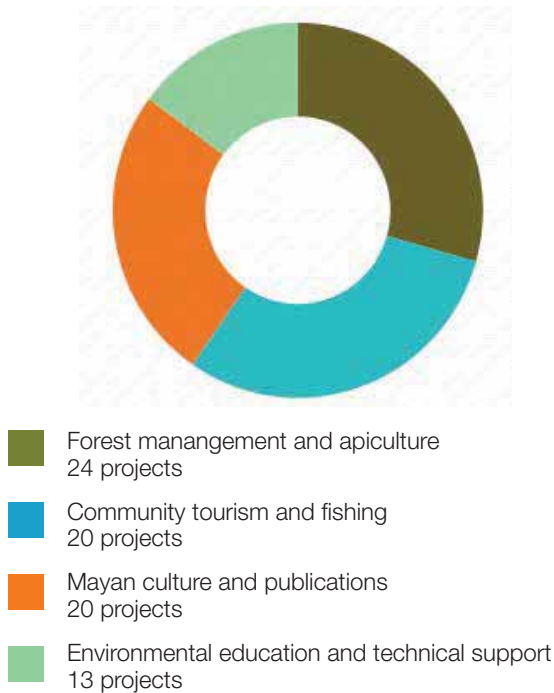
Over the past decade COMPACT has financed approximately 100 small grants supporting projects in and around the Sian Ka’an Biosphere Reserve and World Heritage Site in three thematic areas: the coast, the forest, and the preservation of Mayan culture (see Figure 5). A fourth line of work (environmental education and technical support) serves as the “fishing rod”, supporting the development of skills in intercultural dialogue. The chapter explores how the approach of clustering these activities according to themes has enabled COMPACT to foster synergies among different organizations and actors in the Sian Ka’an landscape and seascape.

### The coast

#### Sustainable fisheries

COMPACT is helping to advance sustainable fisheries through a series of inter-linked projects.

**FIGURE 5. AREAS OF WORK**



Based on the successful experience of the *Vigia Chico* fishermen’s cooperative in Punta Allen, sustainable practices of lobster fishing (e.g. the use of shades instead of traps and protection of nursery areas) have been extended to numerous other fishing cooperatives in communities such as Maria Elena and Azcorra in nearby Punta Herrero (see box). The experience of the Integrated Association of Lobster Fishermen, CHAKAY, has been extended to three more cooperatives in Banco Chinchorro, linking two Biosphere Reserves. To help these groups with joint marketing of lobsters, COMPACT has with the World Heritage-LEEP programme (see Chapter 10) to provide small grants to support the selection and packaging of the lobsters, including by developing a geographic indication label for the product origin. In its first year the cooperatives reached their target of jointly marketing about 10% of their production.

In July 2012 the Marine Stewardship Council (MSC) approved certification of the spiny lobster fishery in Sian Ka’an and Banco Chinchorro, making it only the second artisanal fishery in Mexico to receive this certification. The success of COMPACT and partners, including the six participating cooperatives, in securing this eco-

certification represents a significant step toward supporting sustainable fishing practices in the area.

In an important marine conservation initiative extending beyond the boundaries of the Biosphere Reserve, COMPACT has worked over the past decade with three fishing cooperatives on protection of fish aggregation and spawning zones within the Sian Ka’an Biosphere Reserve. In the second stage of the project these partners are analyzing the potential to create marine protected areas, likely to take the form of “no-take” or fisheries replenishment zones (each lasting at least five years), through a proposal that is supported by fishers in key local fishing cooperatives.

Another key area of work by COMPACT relates to coastal tourism. Punta Allen is the principal point of attraction for tourism along the coast of Sian Ka’an, attracting between 80,000 and 100,000 tourists annually. Through 10 years of COMPACT project support, four tourism organizations in the community formed the Punta Allen Alliance in collaboration with the protected area authorities and international NGOs such as ‘RARE’. This partnership has been crucial in avoiding conflicts and maintaining consistent prices for tourism services and products offered in the community.<sup>1</sup> An important result is ensuring that the majority of the benefits



*Lobsters are individually harvested by hand by fisherfolk who use GPS units to monitor underwater “lobster shades”, and maintain their own computer database to track the cyclical productivity of the bay.*

Grass-roots democracy for World Heritage Sites: promoting shared governance of protected areas through the full participation of men and women from the communities in analyzing problems and finding solutions to them.



remain with the communities, as the local organizations develop the ability to bypass intermediaries and market directly to tourists visiting Tulum and the “Mayan Riviera.”

### **Eco-tourism and the “Orchids of Sian Ka’an”**

In cooperation with the Punta Allen Alliance, COMPACT is supporting a new tour guide training course for women from the community, providing instruction in nature interpretation, boat-handling and navigation, English language skills and quality control management. A group of 33 women participating in the course have formed a cooperative called “Orchids of Sian Ka’an,” which is offering new experiences for visitors interested in cross-cultural exchange and nature-based tourism. These community-based tourism activities include kayaking, bird-watching, and guided walks in the forest, as well as accommodations in local homestays, traditional foods, and sale of local handicrafts. In parallel, COMPACT is helping four Mayan-led eco-tourism organizations working in the wetlands and forest of Sian Ka’an to develop a programme on “living Maya culture.” Anchored by an existing cooperative, Community Tours of Sian Ka’an (CTSK), the groups are collaborating

to develop a circuit that will include the Muyil wetlands and canals, the blue lagoon, local caves and a museum of Maya culture in Tihosuco.

### **The forest**

#### **Apiculture in the forests of Sian Ka’an**

Promoting apiculture has proven to be one effective way to help maintain forest cover while improving the quality of life for people in the region. COMPACT is supporting several organizations that are making the transition from conventional to organic honey and have successfully obtained organic certification. One example is *Flor de Tajonal*, a certified cooperative that sells between 150 and 200 tons of honey annually and is leading a process of landscape-level cooperation among various communities in the Mayan region. Five years ago a group of women formed an organization called *Melitzaak* (which means “bee cure” in Maya) and have developed over 90 apitherapy products that combine honey with other components, including medicinal plants. These are sold from a retail store and marketed at hotels and trade fairs nationally and internationally. Based on their success, *Melitzaak* members are now training women from other regions of Mexico and the neighboring country of Belize.



## THE KANAN KAY ALLIANCE OF QUINTANA ROO

Working in partnership with other groups, COMPACT has created an alliance to establish a network of fisheries reserves called replenishment (or “no take”) zones along the 400km coast of Quintana Roo. The *Alianza Kanan Kay* is a cross-sectoral collaborative with 33 members representing government agencies, fishing cooperatives, national and international civil society organizations, academic institutions, research centers and philanthropic foundations. Alliance members share the common objective of establishing an effective network of fisheries refuges (or replenishment zones) that would cover 20% of the territorial waters of Quintana Roo state with the goal of restoring the artisanal fishery. The name *Kanan Kay* comes from the Maya, “guardian of the fish.”

Its plan of action relies on six related strategies aimed at achieving results within the next three years:

**Design and implement fishing replenishment or “no take” zones** within a network of effective, legally recognized and locally respected fisheries reserves comprising critical, functional and representative habitats and covering 20% of the coast of Quintana Roo.

**Establish the necessary legal and institutional framework** to enable the establishment of the fisheries reserves, as well as management, inspection and monitoring of the fisheries.

**Promote economic and social development linked to fishing** ensuring that the reserves provide livelihood opportunities for communities linked to the added value of fishing and eco-tourism.

**Build and strengthen the capacity of the Alliance** as a critical mass of Mexican individuals and institutions concerned with and capable of establishing, maintaining and managing an effective network of fishing reserves.

**Launch communication and awareness-raising programmes** ensuring that the various stakeholders (including fishers, tour operators and local communities) along with the general public are convinced of the importance of the network of fishing refuges and conservation of coral reefs in Quintana Roo.

**Secure financing for the long-term sustainability of the Alliance** ensuring that there are sufficient resources from the public and private sources to ensure the ongoing management of the network of fishing reserves.

Plans are underway to establish an apiculture school where young people from local communities can study the theory and practice of organic beekeeping. It envisions an integrated approach to bee-keeping that encompasses aspects such as breeding of the queens, relocation of hives to former *milpa* plots in the forest, organic production from the beginning, and a supply chain based on fair trade. At the same time a reforestation project involving native honey plants is helping to boost productivity.

### Carbon capture

In 2007, COMPACT initiated a project on carbon capture in the *Ejido de Felipe Carrillo Puerto* focusing on a 1230-ha area. Called MUCH' KANAN K'AAX, the pilot project has grown and become a center for learning and sharing of experiences on this subject for the entire Yucatan Peninsula. In the next stage of the project, COMPACT will finance the certification of bonds (through the *Plan Vivo* Foundation) and will support training and capacity building of local communities on the topic of REDD+.<sup>2</sup> A long-term forest partnership is in development, involving five *ejidos* working in a 200,000 ha forest area to improve stewardship and secure timber certification (see Box).



*Based on a number of COMPACT community projects to improve apiculture techniques in the region, plans are now underway to establish an apiculture school where young people from local communities can study the theory and practice of organic bee-keeping.*

Since 2008, with the support of the United Nations Foundation and COMPACT, a partnership involving two NGOs and representatives of eight community groups is jointly marketing handicrafts, including items made from wood, seeds and rattan (Non-Timber Forest Products), as well as embroidery and hammocks, under a common indigenous trademark. All of the participating groups come from Mayan communities in the area and that could draw on long traditions in the development of handicrafts. At present 139 artisans from 15 communities are collectively marketing their handicrafts under the *Ak Kuxtal* label (which means “Our Life” in Maya<sup>3</sup>).

### Mayan culture

An integrating element across COMPACT’s biophysical interventions in the Sian Ka’an landscape is its work to sustain the Mayan culture. The Maya Intercultural University of Quintana Roo is a key partner in these activities. Some 600 young people from local communities now study there, pursuing careers in fields such as agro-ecology, community health, Mayan language and culture, alternative tourism and municipal management. Elements of COMPACT’s work in this area include:

## COMMUNITY-BASED CARBON ACCOUNTING: A PILOT PROJECT IN THE MAYAN ZONE



One of COMPACT’s pilot projects in the forests of the Sian Ka’an-Calakmul Corridor is serving as a model of how local and indigenous communities can participate in carbon sequestration projects related to REDD+. The initiative began in 2006, led by indigenous communities that were interested in learning more about carbon capture. With technical and coordinating support from U’yool’ché A.C (an NGO founded by indigenous and local leaders) and COMPACT, the communities undertook a feasibility study, concluding that a sustainable management approach could generate revenue to protect the tropical forest and create jobs. The communities

declared a communal reserve of 1,230 hectares within the territory of the *ejido* in 2007 (this reserve has since been certified by CONAP as a Voluntary Conservation Area, the first of its kind on the Yucatan Peninsula).

A first grant from COMPACT in 2008 supported the communities in developing participatory management strategies to preserve the forest and avoid deforestation in the *ejido*, including within the communal reserve. Their project aims to explore carbon markets as an alternative means of financing for forest conservation, and to pilot new methodologies for carbon capture in the forests of the corridor and wider region. Knowledge

generation and exchange has been a core component of the project, particularly important in the context of REDD+ preparation in Mexico. In this connection, a second SGP grant has helped support capacity-building and knowledge transfer, including exchanges among communities, and support with carbon credit certification process.

Typical of the COMPACT approach in Sian Ka’an, the project has relied on participatory processes for learning, management and decision-making. These include:

- a dialogue format for courses and workshops, to foster sharing of expertise of different kinds;
- the use of community research methods, drawing on expertise and guidance from resource people at a local community college. As an example, development of an allometric equation for calculating carbon in the local context has helped to reinforce a local sense of ownership for the project methodologies;
- Use of traditional knowledge in developing methodologies, such as reforestation in the field;
- Systematization of knowledge to foster sharing among communities and project sites and the use of both Maya Yucateq and Spanish language for workshops and publications.

- **Publications** produced in Mayan and Spanish languages, presenting biological information as well as symbolic representations, stories and legends. The programme has funded nine bilingual publications now found in 510 community centers and schools in the region.
- **Strengthening of local organizations** including those concerned with traditional medicine, language and culture.
- **Recovery of native seed stock with 20 communities** addressing an increasingly urgent need to conserve native seeds and plants adapted to growing in the region, especially those most important for human nutrition.
- **Research and training in techniques of using natural dyes** using research from several states with a strong indigenous presence (Oaxaca, Chiapas and Quintana Roo), and in collaboration with people from local Mayan communities, a manual was published showing how to produce nine colors with natural plants. The next stage will be the production of fabrics, hammocks and other products using natural dyes.



*As of 2012, over one hundred and thirty artisans from fifteen communities are collectively marketing their handicrafts under the Ak Kuxtal label (meaning “Our Life” in the Mayan language).*

### Impacts of COMPACT’s work for indigenous and local communities of the Sian Ka’an landscape

Activities related to fisheries, eco-tourism and bee-keeping have resulted in significant increases in household income in communities where COMPACT is working (see Figure 6). Because

this income is distributed through cooperatives it is having a positive impact on thousands of families in the area. Income-generating activities, linked to certification of good ecological practice, have resulted in an increase of income in those households reached by the projects, with the total estimated to be in the range of US\$1,000,000 in an average year.

**FIGURE 6. RELATIVE INCREASES IN INCOME IN PROJECTS FINANCED BY COMPACT**

Project	Increase in income	Source of income
Lobster fishery	30%	Sales of lobster
Apiculture	20%	Sales of organic honey, mainly to Europe
Forest management	20%	Sales of certified wood
Community tourism	20%	Reduced consumption of gasoline using fuel-efficient motors
Handicrafts production and commercialization	20%	Sales of community products made from sustainably managed resources under a common brand and label of origin
Organic agriculture	10%	Sales of a portion of organic crops, with remainder for family consumption

Productive activities such as fisheries, forest management and apiculture have traditionally been the domain of men, and they remain the main participants in these activities, with women participating in only about one-third of the COMPACT projects in these areas. While this is changing, there is still much progress to be made in achieving gender equity in these initiatives.

Between 2000 and 2005, poverty rates fell dramatically in the coastal communities of Punta Allen, Punta Herrero and Maria Elena, all communities within the Sian Ka'an reserve. The percentage of households experiencing nutritional poverty declined from 32.16% to 5.38%. The rates of poverty (in terms of wealth and capabilities) also fell from 50.29% to 8.6% and from 85.38% to 22.58%, respectively. Poverty indicators related to nutrition, skills and capital are lower in these locations as compared to state and national averages (UNESCO Mexico, 2009).

An important impact has been that as local communities have benefitted directly from activities related to sound management of natural and cultural resources, they are recognizing the connections between these activities and protection of the Sian Ka'an landscape/seascape, including its status as a World Heritage site. As noted in a recent UNESCO study of the impacts of World Heritage designation on local development:

*Overall, the opinion of the various social and institutional agents is that the declaration of Sian Ka'an as a World Heritage Site has been positive. It constitutes an element of identity that is valued by the inhabitants, has contributed to the conservation of the site, and has opened opportunities for economic development through tourism. However, the perception remains that this potential has not been fully tapped (UNESCO 2009).*

### Next steps

What began as a series of small projects linked to the programme's priorities have progressively been organized into "thematic clusters" so that now these areas of activity are clearly identified thematically and engage networks of partners. They fall into the following areas of work: Mayan culture, fisheries, tourism, forestry management and apiculture. With support from COMPACT and its continuing role in facilitating collaborative processes, a variety of stakeholders and partners in the region are working together to develop plans in these areas. As a result, relatively small-scale projects have, over time, been scaled up to multi-stakeholder initiatives at increasing geographic scale with the potential to extend across the entire peninsula.

In the third phase of its work COMPACT is helping to forge lasting partnerships, based not only

**FIGURE 7. COMPACT BENEFICIARIES AND AREAS UNDER CONSERVATION**

	Total Amount	Origin of funds	Average per project
<b>86 projects financed by COMPACT*</b>	US \$1,952,530	75% GEF 25% UNF	US\$ 22,704
<b>Beneficiaries (including environmental and cultural education)</b>	Women: 5,962	Men: 7,427	Men: 55.5% Women: 45.5%
<b>Beneficiaries in productive projects</b>	Women: 1,461	Men: 4,501	Men: 66.7% Women: 33.7%
<b>Hectares under management (approximation)</b>	Marine: 120,000 hectares  (2 bays of Sian Ka'an, fisheries and community tourism)	Forest and land: 130,615 hectares  (Forest management, apiculture and organic agriculture)	

\* An additional five projects were financed by WH-LEEP (see chapter 10).

## LESSONS LEARNED FROM COMPACT-SIAN KA'AN

Among the lessons learned from COMPACT's decade of work in the landscape of Sian Ka'an are the following observations about participatory approaches to fostering sustainable development:

- Culture permeates all aspects of this work. Respect and appreciation for people and their culture is basic to fostering endogenous development.
- Uniting cultural roots with science fosters creativity, breaks new ground and restores dignity to people.
- Before financing projects it is necessary to spend the time needed to analyze problems in a participatory

manner and build consensus regarding solutions and "the way forward." Approaches based on dialogue, in which each person is allowed to his or her say, can trigger new attitudes and favor self-development.

- After creating this consensus, it is important to use accessible language to explain what is intended, and to explain it as often as possible. In this way, all concerned can understand and feel part of the collective project.
- At each stage it is crucial to encourage dialogue directly among participants in order to share the positive, analyze the difficulties and

challenges and then adjust what is not going well. This reliance on dialogue supports an adaptive management approach to developing projects. It is important to create partnerships and alliances that combine the efforts and benefits of related sectors.

- Dialogue and consensus are the basis for harmonious development. Projects in the communities mature at their own speed and gain traction when people see the results. These methods of conservation and collaboration have allowed them to improve their incomes and maintain their resources over the long term.

on planning collaboratively, but also on long-term organizational commitments and cooperative agreements. These partnerships are in key sectors including: fisheries (e.g. Chakay fishing cooperatives in Sian Ka'an and Banco Chinchorro); community-based tourism (e.g. the Punta Allen Alliance), and forest protection (e.g. the Alliance of Forest Ejidos). At present these alliances, started at the local level, are now extending their reach across the state and are expanding to focus on the Yucatan peninsula as a whole. Examples include the *Alianza Kanan Kay*, which is concerned with the entire coast of Quintana Roo (see Box) and *Alianza Itzinkab*, which is concerned with the forested areas of the peninsula.

In a new initiative, COMPACT is participating in a project against malnutrition in the indigenous regions of Quintana Roo that is opening up potential areas of cooperation with governmental agencies and civil society organizations to overcome this serious problem.

## Conclusions

In its 12 years of work in the Sian Ka'an World Heritage Site, COMPACT has fostered a landscape-level laboratory for initiatives that advance sustainable development, sustain indigenous culture, and build social capital. It



*An integrating element across all COMPACT's interventions in the Sian Ka'an landscape has been to sustain Mayan culture by promoting the transmission of traditional ecological knowledge through the production of bilingual Spanish-Mayan publications*

has demonstrated tangible progress in improving livelihoods and enhancing conservation, in areas ranging from fisheries, apiculture, handicrafts, community-based tourism and forestry. Using a participatory and community-driven approach, it has been able to open up new perspectives and attitudes among local communities and other

stakeholders. This work relies on partnerships with a broad range of stakeholders and would not be possible without the cooperation of partners in government, academia, business and the NGO sector.

A key role that COMPACT has played and is continuing to play is that of facilitator, helping to convene different partners who share common concerns across a relatively large landscape and seascape. In this respect, the clustering of activities within thematic areas, as discussed in this chapter, has proven to be an important aspect of the COMPACT model. With relatively modest financial investment, but with considerable investment of time and social capital over time, this approach has enabled individual projects supported by COMPACT to scale up to broader, multi-stakeholder initiatives within the Sian Ka'an landscape.

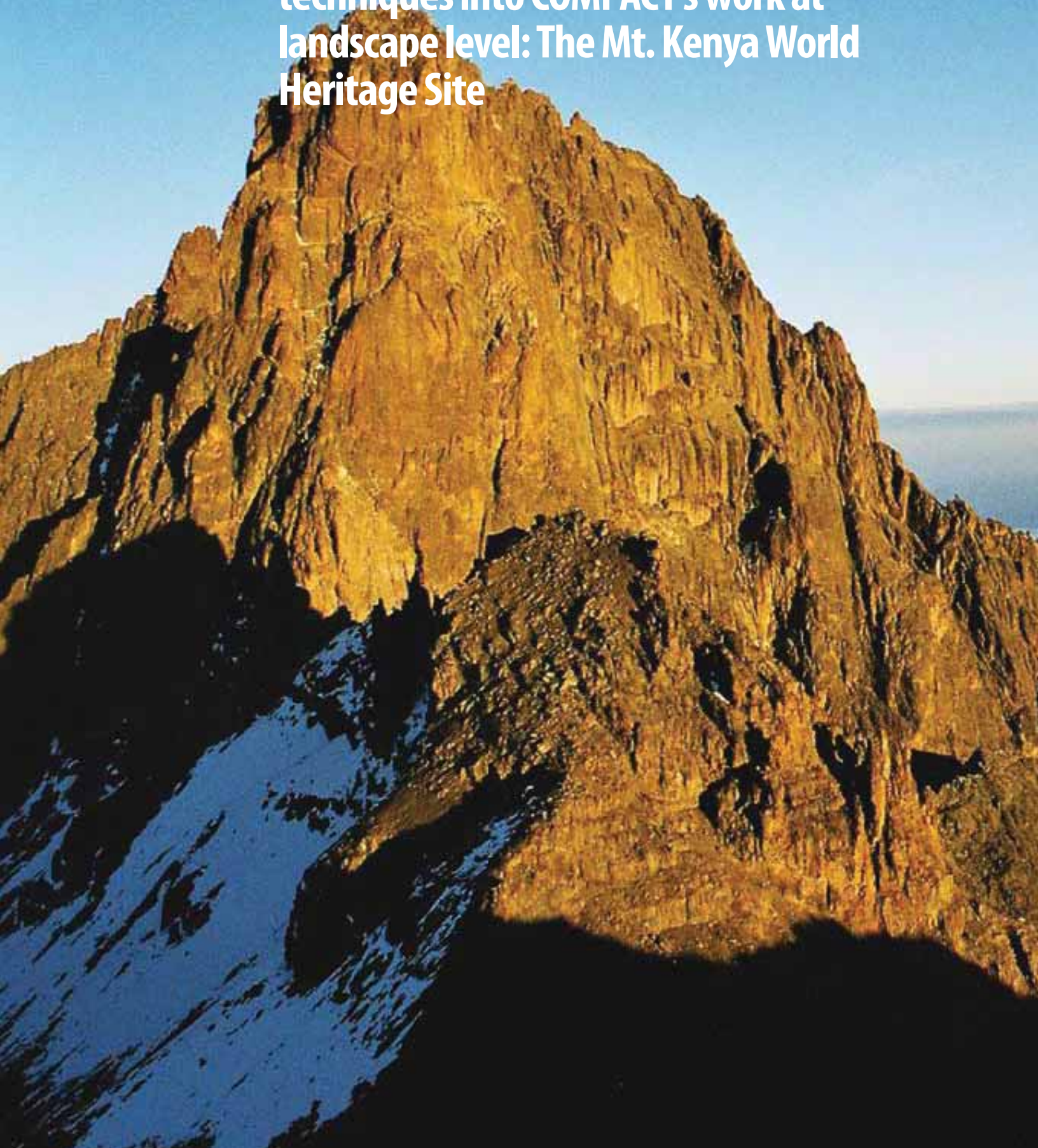
As it develops and expands its partnerships in the coming years, COMPACT has the potential to continue to grow and amplify its impact at

increasing geographic scale within the Sian Ka'an landscape and the wider region of the Yucatan Peninsula. At the national level, the Mexican government is drawing on the experience of the UNDP/GEF Small Grants Programme in the Yucatan Peninsula (including COMPACT's work in Sian Ka'an) to develop landscape-level projects in protected areas in other parts of Mexico. Thus COMPACT's impact is reaching beyond the Sian Ka'an to other regions of Mexico. By piloting this integrated approach over an extended period in a globally significant landscape, COMPACT is serving as a model with national and international relevance.

### Endnotes

1. <http://www.puntaallianza.com/>
2. <http://muchkanankaax.com/>
3. <http://www.kuxtalsiankaan.com/ak-kuxtal.php>

**Chapter 4** Incorporating new methodologies and techniques into COMPACT's work at landscape level: The Mt. Kenya World Heritage Site




**CHAPTER 4**

## Incorporating new methodologies and techniques into COMPACT's work at landscape level: The Mt. Kenya World Heritage Site

FRED KIHARA, NANCY CHEGE AND GAVIN HOCH

### Introduction

The global COMPACT programme has two mutually reinforcing goals in each of the sites where it is working. One goal is to promote community-based conservation and management of natural resources in the landscapes of World Heritage sites and other globally significant protected areas that are under threat from human activities. Another goal is to improve the livelihoods of community members through generation of environmentally friendly and sustainable incomes from locally-based enterprises, and through the empowerment of traditionally disadvantaged groups such as women, youth, indigenous people and the disabled.

In order to accomplish these ambitious goals, COMPACT adopts a landscape approach to project planning, aimed at establishing a large network of conservation projects in the communities surrounding the targeted protected area. At each site, COMPACT seeks to link organizations and communities within a regional network of projects, creating partnerships and synergies among individuals and institutions that otherwise might not have worked together in their conservation efforts. These partnerships strengthen the effectiveness of the individual projects, ensuring their sustainability and increasing conservation impacts. This approach to planning at landscape level recognizes that the interactions of communities with the natural resources of a protected area (e.g. water, migratory wildlife, forest products) may extend well beyond the defined boundaries of the protected area, and that conservation activities must target adjacent lands as well. In most cases, the protected areas and the surrounding communities are inextricably linked together, and conservation of the protected areas must involve and have the support of these communities in order to be successful.

*Overleaf: Considered a sacred peak by the Kikuyu, Mt. Kenya is one of the most impressive landscapes in East Africa. Located in the central highlands of Kenya and straddling the equator, the World Heritage site is home to a diverse variety of flora and fauna.*

COMPACT's programme in the Mt. Kenya World Heritage Site is an example of the successful application of the landscape approach in planning and implementing conservation activities. This chapter will present experience from Mt. Kenya over the past decade, with a particular focus on how the programme has piloted innovative techniques for conducting the baseline assessment, developing the conceptual model, building effective networks among partners, and fostering exchange among communities. These techniques have been adopted in other target countries, enhancing the work of COMPACT globally.

### The Mt. Kenya World Heritage Site

At 5,199 meters above sea level, Mt. Kenya is the second highest mountain in Africa. With its rugged glacier-clad peaks as well as the forested middle slopes, Mt. Kenya is one of the most impressive landscapes in East Africa. Located in the central highlands of Kenya and straddling the equator, the Mt. Kenya landscape is home to a diverse variety of flora and fauna, including rare species such as the Mountain Bongo Antelope, Giant Lobelia, and Groundsel Cabbage. Other wildlife species, such as elephants, zebras, lions, leopards, buffalo, antelope and monkeys, along with plant species, including acacia, podo and bamboo, form an integral part of the mountain and forest ecosystem.

Based on its impressive landscapes, outstanding natural processes and its capacity to support human development, the Mt. Kenya National Park was listed as a UNESCO Man & Biosphere Reserve (MAB) in 1978. The national park and surrounding forest reserve were designated a UNESCO World Heritage Site in 1997. However, as the human population has grown in recent decades, the Mt. Kenya World Heritage Site has experienced considerable environmental pressure



## FIRST INTERNATIONAL REPATRIATION OF LARGE UNGULATE POPULATION FROM THE USA TO AFRICA



Education campaigns with local school children on the endangered Bongo mountain antelope. With the technical assistance of the NGO 'Rare species conservancy foundation', COMPACT partnered with the William Holden Foundation to repatriate eighteen captive-bred antelopes from US zoos to Kenya.

“...the William Holden Wildlife Foundation, which was founded in honour of the legendary wildlife enthusiast and conservationist, William Holden (1927 – 1981), and the Mt. Kenya Wildlife Conservancy, have been concerned about the survival of wildlife in Africa that are facing a hostile environment and changing land use systems that are grossly non-tolerant to wildlife habitation. We partnered with COMPACT in 2003

to support conservation of the endangered Mountain Bongo antelope (*Tragelaphus Euryceros Esacc*). Through a concerted effort of various donors we were able to repatriate 18 antelopes from zoos in the US which have been used to build a sizeable herd of 70 that is now ready for the final journey back to the Mt. Kenya forest where their ancestors lived decades ago before going extinct.

This partnership has also helped us to reach over 145,000 local residents in northern Mt Kenya who have largely understood the need to support bongo conservation through this outreach offensive, dubbed *saidia bongo kuishi* (give bongo antelopes a chance).”

— Stefanie Powers, President, William Holden Wildlife Foundation, Mt. Kenya

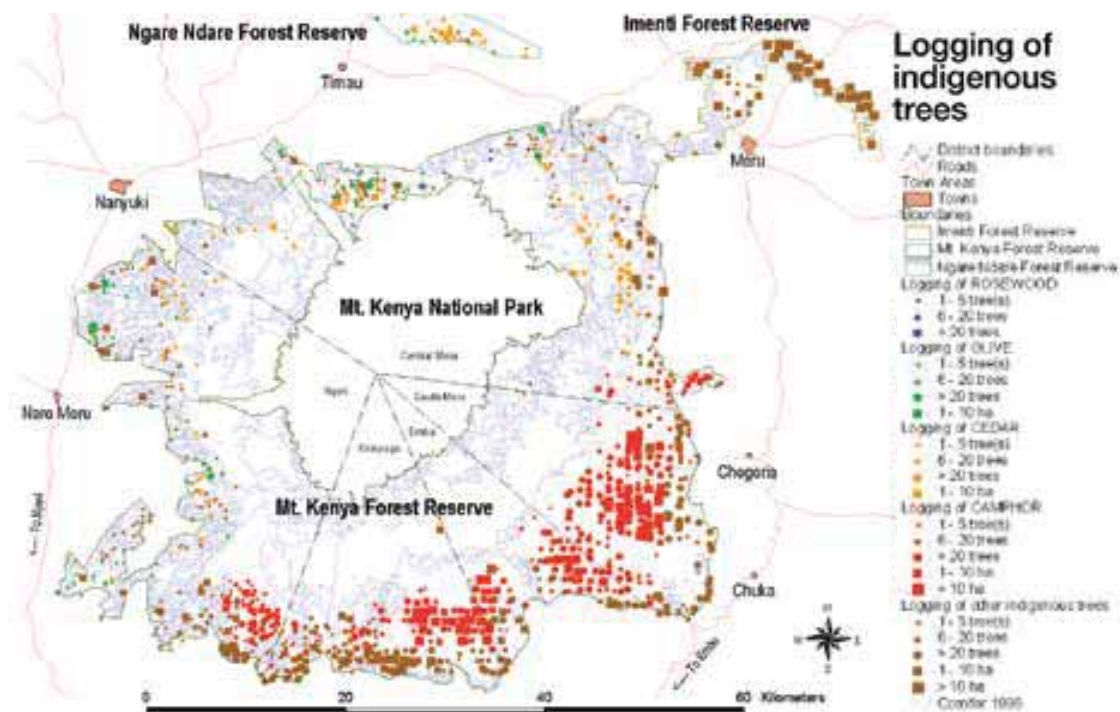
and degradation as a result of poor resource management, poverty, and increased dependence on forest resources. These factors have led to shrinking forest cover, drying up of streams, soil erosion, and reduced species diversity. There has been a general decline in the capacity of the forest to provide economic and environmental services for nearby communities.

The Mt. Kenya COMPACT initiative, utilizing the landscape approach, seeks to reverse these trends by engaging local communities in environmental conservation projects around the World Heritage Site. Since its inception in 2001 in the Mt. Kenya region, COMPACT has partnered with over 70 community groups and non-governmental

organizations to undertake community-based environmental conservation and livelihood improvement projects around the mountain. Through its support to communities and stakeholders at site level, the COMPACT Mt. Kenya programme has introduced and integrated a number of new techniques and methods, innovating the landscape approach, in ways that have helped to enhance the COMPACT programme globally. These methods and techniques include: the use of aerial surveys in conducting baseline assessments; use of the Open Standards/Miradi approach spearheaded by the Conservation Measures Partnership (CMP) led by Foundations of Success (FOS); use of information communication technologies (ICT) for networking

**FIGURE 8. AERIAL SURVEY OF THE DESTRUCTION OF MT. KENYA, IMENTI AND NGARE FOREST RESERVES (FEBRUARY - JUNE 1999)**

In 1999, in cooperation with UNEP, the Kenya Wildlife Service carried out the first aerial survey of the destruction of Mount Kenya, Imenti and Ngare Ndare forest reserves. Between 2000-2002, KWS carried out intensive law enforcement efforts just as COMPACT began implementation. Another aerial survey was carried out by UNEP and KWS in 2003 and 2005 which revealed a significant decrease in the rates of degradation.



and mobilizing stakeholders and sharing knowledge and information; and use of community-to-community exchange for capacity-building. The experience of COMPACT in Mt. Kenya with each of these tools is described in further detail below.

**Baseline Assessments for the Mt. Kenya landscape using aerial surveys**

The use of aerial surveys to conduct baseline assessments is one example of an innovative practice piloted in the Mt. Kenya landscape and later replicated for Mt. Kilimanjaro and other COMPACT sites. When the COMPACT programme was launched at the Mt. Kenya World Heritage site in 2001 an important first step was to conduct a comprehensive baseline assessment that considered many features of the landscape and communities living around the mountain, including: the historical background of the protected area's establishment; the status of civil society organizations in the area; management policies affecting the protected area; resource tenure arrangements; regulatory mechanisms, and the status of ecosystems in the area. As part of the baseline survey, the COMPACT team sought to locate the major areas of environmental degradation on Mt. Kenya and

to quantify the extent of the degradation. These data were then used in later monitoring exercises to determine the impact of the COMPACT programme over time. The baseline assessment therefore provides a tool to track progress, and monitor the extent to which degraded areas have recovered or been rehabilitated, undamaged areas have been conserved, and destructive environmental activities have been discontinued.

Due to the vast size of the Mt. Kenya World Heritage site, its steep terrain, thick vegetation, unpredictable weather and lack of established roadways and trails over large areas, it would have been difficult to conduct a complete and representative survey using conventional survey methods. Conducting a ground-based survey, for example, would have required significant resources of equipment and personnel and extended periods of time. Furthermore, because environmental degradation at the Mt. Kenya World Heritage site is almost exclusively due to illegal human activities which can occur anywhere (including remote, well-hidden areas), it was highly likely that ground surveys would not have located all or even a representative sampling of these degraded areas.

In order to make the most efficient use of available resources, the Mt. Kenya COMPACT Initiative worked together with its partners and stakeholders to identify potential alternative methods for collecting these necessary baseline data. In the late 1990s, the Kenya Wildlife Service (KWS) had commissioned aerial surveys in several areas of Mt. Kenya to identify areas of environmental degradation and monitor wildlife populations and movement. Although the cost of using aircraft to conduct the surveys was high, these aerial surveys had several advantages over ground-based surveys. First, the surveys could be conducted quickly and efficiently. Second, aerial surveys could provide more comprehensive coverage of the desired survey area and locate environmental degradation and illegal activities even in remote and inaccessible areas. Third, the ability to conduct aerial surveys would not be impacted by ground conditions and only minimally impacted by weather conditions. Based on these advantages, the successes of the earlier KWS surveys, and the availability of local resources and capacity to conduct them, COMPACT decided to use aerial surveys to collect baseline data on environmental degradation on Mt. Kenya.<sup>1</sup> Using low-flying aircraft based out of the Nanyuki Airfield on the northwest slope of Mt. Kenya, aerial surveys were conducted that traversed the entire area of the mountain. The surveys were conducted by flying in a grid pattern, allowing degraded areas to be identified quickly and efficiently and their locations noted precisely using the Global Positioning System (GPS). The size of the degraded areas were also estimated based on the experience of the surveyors and conservationists supporting the exercise.

Based on COMPACT's success in using aerial surveys to conduct the baseline assessment in and around Mt. Kenya, this type of survey now has become a standard method for measuring environmental conservation impacts over time at the Mt. Kenya World Heritage Site, and has been adopted for other important watersheds in the country. Following the original baseline assessment in 2001, COMPACT's conservation partners (including UNEP, KWS and the Kenya Forest Service) conducted subsequent aerial surveys of environmental degradation on Mt. Kenya during 2003 and 2005. These surveys have revealed a marked decline in illegal and destructive environmental activities on the mountain and an

increase in forest cover in some of the intervention areas in the period since 2001.<sup>2</sup>

## **Use of the Open Standards and Miradi tools for planning, management and monitoring of conservation projects**

### ***Background on the Open Standards and Miradi***

Another example of how the Mt. Kenya COMPACT initiative has been at the forefront in piloting and adapting new approaches has been in the adoption and dissemination of planning frameworks. In early 2011, the global COMPACT programme began to incorporate a new methodology for the design, management and monitoring of conservation projects at each of the individual COMPACT sites around the world. This methodology, called the Open Standards for the Practice of Conservation (Open Standards), was developed by the Conservation Measures Partnership (CMP), a joint venture of over 20 leading conservation-based organizations and agencies from around the world. The main objective in creating the Open Standards was to provide a holistic and common approach to project planning, management and evaluation in order to maximize the efficiency and effectiveness of conservation initiatives in and around protected areas world-wide. To this end the CMP partners merged common concepts, approaches and terminology to develop



*The Open Standards approach adopted by COMPACT provides a common approach to project planning, management and evaluation in order to maximize the effectiveness of integrated conservation development initiatives in and around protected areas.*

a set of guidelines and common language freely available for use by all conservation practitioners.

Foundations of Success (FOS), an American non-profit organization, was the driving force behind the formation of the CMP and guided the process of developing the Open Standards. As part of this development process, FOS assisted the CMP to prepare and publish a guidebook, *Open Standards for the Practice of Conservation*, which provides an overview of the standards and examples of how to use them to improve conservation projects. FOS also worked with the CMP to design a computer software package called Miradi to guide conservation practitioners through the steps in the project management (or adaptive management) cycle upon which the Open Standards are based. Miradi, which means “projects” in Swahili, provides a user-friendly graphical interface that allows conservation practitioners to organize project information and data, and construct diagrams and tables to illustrate and conceptualize these data and information to improve the design, management and monitoring of their conservation projects.<sup>3</sup>

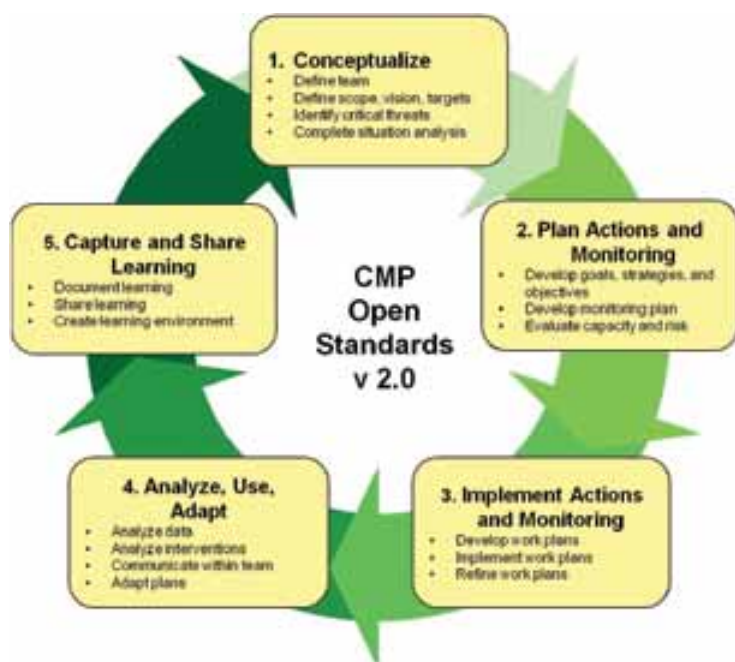
### **Uptake of Open Standards by COMPACT**

To gain proficiency in the Open Standards approach and Miradi software, during early 2011

the Local Coordinators and National Coordinators from the nine COMPACT countries participated in a series of webinars and a global workshop. The global workshop, hosted by COMPACT-Senegal, included hands-on training elements, during which COMPACT Coordinators, SGP National Coordinators and instructors worked collaboratively in small groups to develop basic conceptual models and “results chains” (e.g. diagrams that illustrate strategic plans and results of intervention strategies in a stepwise, logical flow) for each of the COMPACT programmes. These interactive trainings also introduced participants to non-software-based tools, such as sticky boards and notecards to organize and display information and to encourage participation in settings where it might not be practical to use the Miradi software. The training methods used in the workshop served as examples for the Local Coordinators and SGP National Coordinators to follow when introducing Open Standards and working with partners to develop conceptual models at their respective sites.

Following the workshop, the Local Coordinators and SGP National Coordinators continued learning about Open Standards and Miradi software through monthly web conferences during 2011, each focused on a different step in the project management cycle as illustrated below:

**FIGURE 9. THE CMP ADAPTIVE MANAGEMENT CYCLE**



### **Piloting of Open Standards Approach to stakeholders at the Mt. Kenya WHS**

Due to the large number of donors, NGOs, government agencies, private firms and communities engaged in environmental conservation programmes and projects in the Mt. Kenya landscape, COMPACT recognized that the adoption and application of the Open Standards approach by these groups could have a significant positive impact on conservation in the Mt. Kenya Region. The Mt. Kenya COMPACT team therefore decided to introduce the Open Standards approach and Miradi software at a meeting of the COMPACT Local Consultative Body (LCB), which brings together all government conservation institutions, private sector professionals and NGO representatives from within the area. The LCB members agreed that the approach would be very useful for conservation practitioners at the Mt. Kenya World Heritage Site, and requested that COMPACT organize an initial training for an

initial group of conservation managers to begin the process of integrating the Open Standards approach into their conservation projects.

In August 2011 the Mt. Kenya COMPACT team, with support from the SGP Kenya office, conducted a two-day induction workshop on the Open Standards approach and Miradi software. The participants included 25 conservation managers representing 10 organizations from a wide range of government agencies, NGOs, and private sector firms. Using the training materials provided by FOS and adapted for the Mt. Kenya World Heritage Site, the Mt. Kenya COMPACT team provided background on the Open Standards, discussed the five main components of the Open Standards that form the Adaptive Management Cycle, explained the advantages of the standards, and provided practical examples showing how this approach improves conservation projects. Based on these presentations and subsequent discussions among the workshop participants, the forum agreed to adopt the Open Standards as a joint tool for planning, reporting and monitoring of their conservation work. As a result, the participating organizations formed a branch of the Conservation Measures Partnership for the Mt. Kenya World Heritage site (see listing in Figure 11 below).

**FIGURE 10. THREATS RANKING FOR COMPACT CONCEPTUAL MODEL**

Threats (Targets)	Rivers & Riparian	Mountain Forest	Mountain Biotope	Endemic Forest	Designated Grass	Summary Threat Rating
Poaching			High	Low		High
Natural Predators			Low	Low		Low
Loss of Food			Low	Medium		Low
Livestock Grazing				Medium	Medium	Medium
Waste Dumping/ Pollution	Low				Low	Low
Planting of Exotic Tree Species	Low	Low				Low
Overabundance of Water from Rivers	Medium				Low	Low
Road Quarrying Activities	Medium					Low
Clearing of Land for Agriculture or Pastoralism	Medium	Medium	High	Medium	Medium	Medium
Loading and Unloading of Fuel	High	Medium	Medium			Medium
<b>Summary Target Ratings</b>	Medium	Medium	High	Medium	Medium	<b>Overall Threat Rating</b>

COMPACT facilitated the workshop participants to identify the primary targets and the most significant direct threats for the Mt. Kenya World Heritage Site and Laikipia Region of Kenya. The forum agreed upon a set of five targets and, following substantial debate, the participants identified the two or three most significant direct threats for each target. COMPACT also conducted a series of practical, interactive

**FIGURE 11. MEMBERS OF THE CONSERVATION MEASURES PARTNERSHIP IN THE MT. KENYA REGION (2011)**

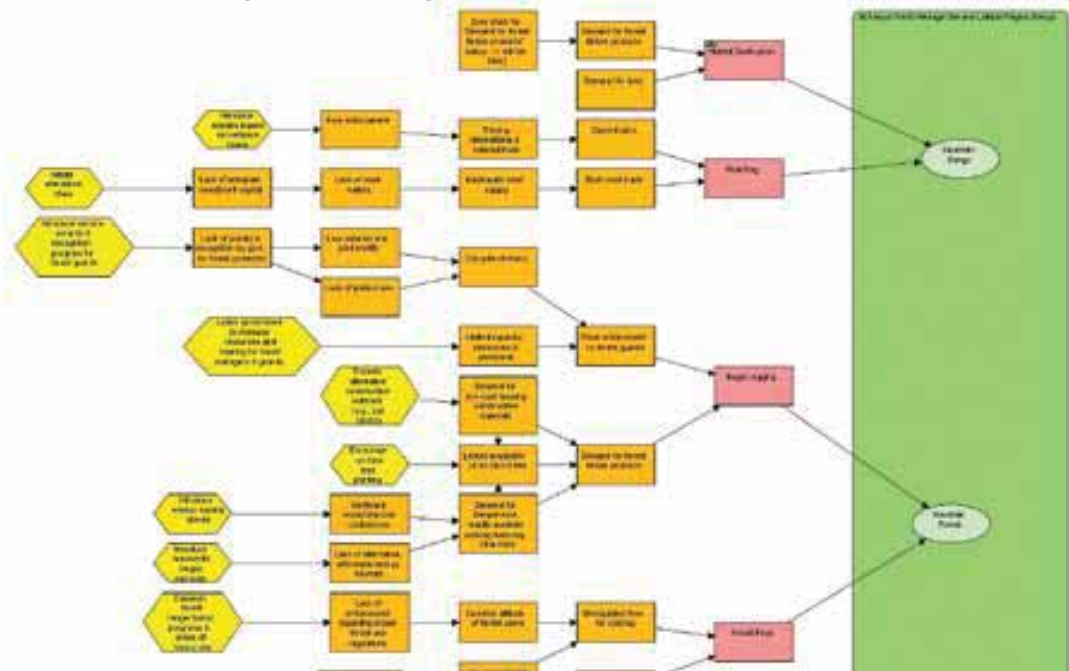
Members:



Funding Support:



**FIGURE 12. SECTION OF THE CONCEPTUAL MODEL DEVELOPED BY THE MT. KENYA CMP PARTNERS**



computer-based training sessions to introduce the Miradi software. During the final training session, workshop participants formed smaller groups to develop a results chain of indirect threats and potential strategies (or interventions) for a selected conservation target and direct threat using Miradi. Following the induction workshop, the Mt. Kenya COMPACT team organized and compiled the results of the workshop sessions to create an initial draft of a basic conceptual model for the Mt. Kenya World Heritage Site.<sup>4</sup>

**Challenges and Next Steps**

Although the level of acceptance and understanding of the Open Standards approach has been very high among the initial group of conservation managers inducted, the adoption and continued use of Open Standards at the Mt. Kenya World Heritage site requires the support and commitment of a critical mass of stakeholders. The initial training facilitated by COMPACT reached a relatively small core group of trainees and provided only a brief introduction to Open Standards and Miradi software. More in-depth training on the use of the Open Standards and Miradi will be needed in order to build the necessary support and commitment among conservation practitioners and

in order to capitalize on the success of the initial workshop. These workshops, targeting a broader group of stakeholders, will help to produce a more complete conceptual model for the Mt. Kenya World Heritage Site. Once fully developed, this conceptual diagram will identify specific strategies to address direct threats, as well as contributing factors, in order to achieve the stated conservation targets in the landscape of the Mt. Kenya World Heritage Site. As part of this process, detailed results chains and monitoring methodologies will be prepared, along with specific and quantifiable goals and indicators. Through this collaborative planning process it will be possible to clarify the roles and responsibilities of the various actors in the area (including donors, government agencies and NGOs) and to facilitate a more coordinated approach towards conservation in the Mt. Kenya World Heritage Site.

Based on the experience up until 2012, COMPACT Mt. Kenya will continue to promote and encourage the use of the Open Standards and Miradi among stakeholders around the mountain through targeted workshops and meetings of the Local Consultative Body for the World Heritage site and the SGP National Steering Committee. COMPACT will continue to engage stakeholders in refining the

existing conceptual model for the Mt. Kenya landscape to ensure that conservation programmes and projects are coordinated and focused on addressing the threats identified during the development of the draft conceptual model. Project managers of COMPACT-supported community projects will be given basic training in the Open Standards and Miradi tools and requested to prepare conceptual diagrams and results chains for their projects. These plans will assist the communities to conceptualize their projects and improve the planning, implementation and monitoring of their projects, with a view toward improving results and conservation impacts over the long term.

### **Use of ICTs for networking and mobilizing stakeholders and sharing knowledge and information**

#### **Background on Information Communication Technology (ICT)**

The advent of Information Communication Technology (such as e-mail, internet-based groups, and digital photos and videos), along with increasing access to various ICT devices (e.g. computers, digital cameras and mobile phones) has helped to connect people, allowing them to share ideas, knowledge and information quickly and efficiently. The evolution and widespread use of these technologies and devices over the last decade has transformed the world into a virtual global village, connecting even the most remote regions. Although many of these technologies originated earlier, their availability, uptake and usage has grown exponentially over the past decade throughout the developing world.

Taking advantage of the rapidly expanding access to ICT technologies within Kenya, COMPACT has introduced these tools to its partners, using them as a way to help connect communities with each other and with other stakeholders (e.g., government ministries, NGOs, private companies and donor organizations). The Mt. Kenya COMPACT Initiative has used a number of different ICT strategies to mobilize communities and other stakeholders and to share information. Examples include: building a Grantees Network, developing digital project photo-story documentaries, and utilizing a web-based training module. Each of these strategies and methods is explained in more detail below.

#### **Development of the Mt. Kenya Grantee Network and E-mail Group**

One of the major ways that the Mt. Kenya COMPACT Initiative has used ICT tools to network and mobilize communities and stakeholders, and to share knowledge and information, is through the creation and development of a grantees network that relies on an e-mail group to keep members connected. The Mt. Kenya Grantees Network was established in 2007 as a joint venture between COMPACT and the Community Environment Facility (CEF) programme of the Community Development Trust Fund (CDTF).<sup>5</sup>

The main objectives of the Mt. Kenya Grantees Network include:

- Pooling of knowledge and resources to strengthen all member projects;
- Enhancing communication, networking, and partnerships among projects, stakeholders, and donor programmes;
- Promotion of long-term sustainability of community projects; and
- Partnering in sharing of monitoring data and information for partners and projects.

The Mt. Kenya Grantees Network was officially launched in December 2007 with the first Grantees



*Since the year 2000, COMPACT Kenya has supported 76 alternative livelihood projects worth \$1.68 million from the GEF, benefitting over 700,000 inhabitants living within the Mt. Kenya watershed.*

Network workshop, organized by COMPACT and CDTF, which brought together approximately 25 members representing 15 COMPACT-and CDTF-supported community projects in the Mt. Kenya region as well as selected stakeholders (e.g. KFS, KWS, NEMA, CETRAD). The workshop aims included enabling participants to share project experience with each other, providing basic project management and financial training, and establishing a communication system that would allow the network members to interact with and support each other in real time following the workshop. Anticipating a large number of network members extending across the large geographic area (approximately 10,000 km<sup>2</sup>) of the Mt. Kenya region, COMPACT and CDTF realized that the most cost-effective and efficient way to connect members and maintain regular communication would be through the establishment of a web-or email-based network. Utilizing the free web-based Yahoo Groups, COMPACT established a Mt. Kenya Network email group,<sup>6</sup> and all workshop participants were guided through the process of creating an email address and joining the network email group. Although the network group was moderated by the COMPACT Local Coordinator, the network is self-sustaining for the most part

and relies on its members to maintain open and continuous dialogue and sharing of information.

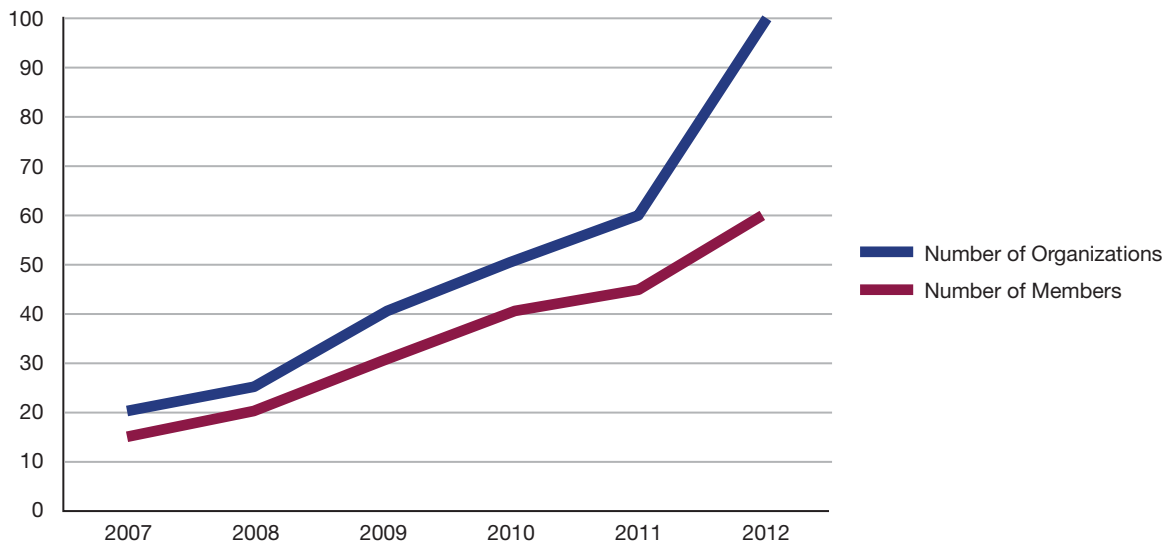
Since its inception, the Mt. Kenya Network e-mail group has served as a forum for members to ask questions, request and receive technical support, share knowledge and information, provide project updates, and share project photographs and videos. Network members use the email group to post announcements regarding upcoming events and to mobilize participation of communities and stakeholders in these events. For instance, prior to the Mt. Kenya Open Days events in November 2010, short messages discussing the events were posted to the network e-mail group and website. These messages helped to increase attendance and participation, which exceeded over 200 people at each event. Similar messages regarding environmentally significant events such as World Environment Day, World Water Day, and World Forestry Day have also helped to enhance recognition and increase participation by communities and stakeholders in these events. The network group has also been used to disseminate information to members regarding award nominations, (e.g. the Equator Prize), funding opportunities with other donors, and to advertise job openings at stakeholder organizations.

*The 'Mt. Kenya Grantees Network' was officially launched in December 2007 with the first grantees network workshop, organized by COMPACT and the Community Development Trust Fund (CDTF).*





**FIGURE 13. GROWTH OF THE MT. KENYA GRANTEES NETWORK SINCE ITS INCEPTION IN 2007**



Following the initial Grantees Workshop in 2007, additional workshops have been held on an annual basis to induct new projects and stakeholders into the network. These workshops have also included sessions devoted to sharing project experience and capacity-building in skills (e.g. project management, financial management and computer use). COMPACT has helped to further integrate ICT skills development into these workshops, for example by requiring that all community groups prepare and present brief slideshow presentations of their respective projects. Instruction has been provided on basic computer use skills, and community groups have learned how to set up their own e-mail accounts and join the Mt. Kenya Network group.

Following each workshop, members have continued to contribute actively to the network email group, using it for announcements, information sharing, and requests for assistance. As of December 2011, the network had expanded to over 60 groups, encompassing community projects recently supported by COMPACT, as well as a more comprehensive range of partners from the Mt. Kenya region (e.g. District Fisheries Officers and LCB members). COMPACT anticipates that the network will expand to well over 100 members in the coming years as new community groups become SGP and CEF grantees, and as new donor clusters are added to the network.

#### ***Use of photo-stories as an ICT Tool***

The production of photo-stories is another ICT method that has been successfully used by the Mt. Kenya COMPACT initiative to share information and knowledge among community groups and other stakeholders and to publicize successful community projects. A photo-story is a short documentary (typically 3 to 10 minutes in length) that uses a choreographed set of photographs with accompanying audio narration to tell a story or convey information regarding a particular project, group, or activity. The design and production of the photo-story is done on a computer using specialized software (e.g. Microsoft's Photo-story software) that typically includes a variety of animation effects (e.g. vertical and/or horizontal movement or zooming in and out of photographs), giving the documentary the feel of a video.

The Mt. Kenya COMPACT Initiative has assisted two community projects to design and produce photo-stories that convey the story of their projects in a concise and compelling manner. These short photo-story projects, showcasing the Sagana Women Fish & Bee Farming Group's fish farming project and the Mt. Kenya Organic Farming (MOOF) anti-POPs project, have been circulated widely, including within the communities during local events, within the Mt. Kenya region (for



*Sericulture (raising of moths for silk production) has proved to be a successful alternative livelihood activity for local communities living around Mt. Kenya. Local groups are now responsible for all stages of the processing of silk.*

example, at LCB meetings), at national events such as NSC meetings, and internationally at events such as the SGP African Workshops held in 2008 and 2011. As a result of their universally compatible electronic video format and relatively small size, it has been possible to circulate the photo-stories over e-mail and upload them onto YouTube (a video-sharing website) for sharing with stakeholders, partners and other interested individuals and groups within and outside Kenya.

In addition, COMPACT has been providing instruction to representatives of community projects and stakeholders on the use of this software, encouraging them to develop their own photo-documentaries to share knowledge, experiences and information gained from their projects. These photo-stories have also been useful in helping to attract broader participation in activities, as well as financial and technical support, from group members, stakeholders, local communities and outside donors.

**ICT as a Training Tool to Share Knowledge and Information on POPs**

In another example of using ICT for networking and knowledge-sharing, COMPACT initiative has utilized an internet-based training module for capacity-building of partners in the Mt. Kenya region. In 2006, the SGP created an on-line training module designed to provide background

information to SGP and COMPACT staff and project managers regarding the production, uses, environmental and health impacts and regulation of chemicals that are Persistent Organic Pollutants (POPs). The module also included examples of POPs projects conducted by SGP. With the initiation of the first POPs-specific project in the Mt. Kenya region in 2009, COMPACT Kenya wanted to ensure that all project implementation committee members and project leaders were knowledgeable and conversant about these issues.

Due to the high level of agricultural production and use of potential POPs-containing pesticides in the region, the Mt. Kenya COMPACT team also sought to make this training module available to other partners, such as the Syngenta Foundation for Sustainable Agriculture, whose field staff routinely conduct farmer extension trainings. COMPACT also encouraged local and regional waste management and plastics recycling companies, such as ‘Top Notch Environment Solutions’ to complete the online training module in order to better understand how POPs are generated and how proper waste management can reduce the creation of POPs.

As these partners became aware of the importance of understanding POPs for their work in agriculture and waste management, they expressed strong interest in completing the online training

module. COMPACT facilitated the groups' participation in the on-line course, helping them to access the training module and complete the registration process, and serving as a resource when they had questions and needed technical assistance. Within a period of two months, an initial group of 31 individuals successfully completed the training module. These graduates, comprising approximately 10% of all global course graduates at the time, were recognized at a certificate-awarding ceremony in May 2010 presided over by representatives of SGP and the NSC. As of December 2011, an additional 20 COMPACT partners from Mt. Kenya had successfully completed the on-line POPs training module. These graduates are helping to raise awareness and spread knowledge about these harmful chemicals among communities, NGO and government extension workers, and private firms engaging in agricultural production and waste management. Empowered with this knowledge, they have begun to design and implement alternative pest and disease-control methods for crops (such as IPM, which relies on predator insects and microorganisms) and alternative waste management strategies (such as sorting and recycling of plastics).<sup>7</sup>

### Use of Community-to-Community Exchange

The Mt. Kenya COMPACT initiative has incorporated community-to-community exchange as another innovative means of sharing information, knowledge and project experiences among partners. These exchanges have served to create bonds among communities and develop synergies among projects, strengthening the overall impact of COMPACT's work at landscape level in the Mt. Kenya World Heritage site. Many of the methods of community-to-community exchange that have been successful at Mt. Kenya have been adopted by COMPACT programmes in other countries as well. These methods include community exchange visits, development of a grantees network and e-mail group (described above), and the formation of partnerships to plan and develop projects.

Community exchange visits have been one of the most effective ways of exchanging information and building knowledge and skills among projects at the Mt. Kenya World Heritage site. COMPACT has supported all of its community partners in conducting these visits as a way to learn from other community groups or organizations who have engaged in

### POPS E-TRAINING COURSE REPLICATED THROUGH COMMUNITY NETWORKS

"...although I have received a lot of training on environmental management in the past, the POPs online course to me was a big surprise and an eye-opener. It was the first e-learning course in my life and the content of it is amazing. Many of our officers didn't even know that burning plastic waste created more problems than solutions with dioxins being emitted which have even worse consequences to life than the waste plastic materials. I strongly recommend this course for all environmental conservation officers working for NEMA, public health workers and municipal council's solid waste handling staff...."

—Mr. Charles Wachira Bore, Provincial Director of Environment, NEMA Central Kenya, and COMPACT LCB member. Feb 2012.



'Top of the POPs' graduates of the online SGP POPs training module

## PARTNERSHIP BETWEEN EUROPEAN UNION AND COMPACT FOR MT. KENYA

“...COMPACT in Mt Kenya has been very instrumental in organizing cross-groups learning and exchanging of ideas. This has been done through grantees information sharing workshops and exchange visits to one another. As a European Union supported program, we partnered with COMPACT in 2007 to take advantage of their growing network and to have our grantees also benefit from such events. The most memorable

one was in April 2010 when four of our projects were hosted by a COMPACT supported women group in Mt Kenya to learn about fish husbandry and utilization. We had supported them in implementing fish farming activities for their livelihoods but it was a new technology to them being highland people. The lessons learnt were practical and very beneficial to them and to the technical officers as well. The groups have become good models and

trainers in their respective areas since that time and have retained contacts with the women group. I still recall how to constitute a balanced fish meal using locally material that are inexpensive and readily available...”

— *Mr. Humphrey Kaburu, Technical Officer, Community Environment Facility of the EU, Kenya. Feb 2012*

similar activities. With each exchange COMPACT encourages many of the members of a given project to participate (as feasible in terms of group size, travel logistics and expense) in order to maximize the opportunities for peer-to-peer learning.

During the five-year period from 2007 to 2011, COMPACT has facilitated a total of 18 community exchange visits in the Mt. Kenya region, with participation by over 600 group members. During these visits, participating communities gain practi-

cal experience, learn about potential issues they may face, and receive support in addressing current or on-going issues. Having the opportunity to ask questions and obtain advice from partners in other communities has helped them to be more effective in planning, implementation and monitoring of their project activities. The visits also serve as a source of motivation and inspiration to partners as they are able to see the end results of a similar project and witness the benefits to the group and host community. In several cases, the visits have resulted in the successful replication and up-scaling of project activities. For instance, the successful implementation of the Kathuna Biogas project, which installed 70 household biogas units in central western Mt. Kenya, provided a blueprint for other communities in the region to implement household biogas projects as a source of clean, alternative energy. Using the Kathuna project’s unit designs and working with the same construction contractors and project methodologies, the Mukurwe-ini Development Initiative (MDI) and Laikipia Central Community Development Organization (LAICCODO) were able to construct an additional 120 biogas units, thereby increasing the adoption of household biogas as a source of clean, renewable energy in communities southwest and northwest of Mt. Kenya.

The Mt. Kenya Grantees Network has also served as a valuable forum to encourage exchange among communities. As described earlier, each workshop included an opportunity for group leaders to present their project work and share knowledge with each other, leading to increased networking and collaboration among the participating organizations long after the workshop had ended.

COMPACT has supported skill development in trout farming, which relies on cool water temperatures from the Mt. Kenya forest watershed, to provide alternative livelihood activities for local populations.



Through the Grantees Network, cross-donor exchange visits were conducted, focusing on bringing together community groups and projects that were implementing very different types of projects. These visits helped to introduce new and innovative conservation and income-generating ideas to participating groups and encouraged them to diversify their project activities and income sources as a way of promoting sustainability.

The Mt. Kenya Grantees Network has also brought communities together through the network e-mail group described above, because it provides a cost-effective and efficient way for these groups to communicate in real-time. It serves as an extended support network, allowing otherwise isolated groups to access technical assistance when they need it during the project cycle and after grant funding has ended. This support helps to ensure long-term sustainability of the projects and their benefits to both the community and environment. For example, the Grantees Network has served as a critical resource for six fish-farming projects around the Mt. Kenya World Heritage site, linking them together to share information. As a result, although donor support (either from SGP or CDTF) ended between 2008 and 2010 for most of these projects, they have continued to grow and

generate increasing quantities of fish and income for community members.

The sustainability of these groups and their project activities can be attributed in large part to their ability to obtain support from one another when they face technical or management issues that cannot be handled within their own groups. The network e-mail group has also linked them to other resources within their communities such as District Fisheries Officers and Youth Development Officers who have provided technical and mentoring assistance to many of these groups.

The formation of partnerships for project planning and implementation is another method of community-to-community exchange that has strengthened projects. By working together to plan and carry out projects, communities have been able to build on each others' strengths, developing their capacities in project and financial management, and increasing their understanding of technical issues. Working in partnerships has helped these groups learn how to engage with other communities or segments of communities in constructive, collaborative ways. For example, the Likii Water Resource Users Association and the Nanyuki Water Resources Users Associations implemented a joint

*Sacred natural sites (SNS) supported by COMPACT are important points in the cultural landscape to anchor community memory, transmit traditional ecological knowledge, and "purify" seeds for continued hybrid vigor and future prosperity.*



water governance and sanitation improvement project from 2008 to 2010. At the beginning of the project, the two associations had very different levels of management capacity, necessitating that one of them take primary responsibility for overall project and financial management. However, through capacity-building activities and mentoring during the course of the project, the other committee learned how to manage progressively larger activities and also gained experience in financial management. At the same time, it had strong experience with community engagement and was able to help its partner to work more effectively with the communities in the downstream areas by encouraging dialogue regarding water-sharing to help avoid water-related conflicts between upstream and downstream water users. Through the collaboration of the two associations, the project was successfully implemented in upstream and downstream portions of the watershed and both organizations were strengthened (for more on Water Resource Users Associations see the box in Chapter 6).

The methods of exchange discussed above have provided a number of benefits to the participating communities and groups including an expanded natural resource base; increased technical, financial and project management capacity; and diversified livelihood activities. Through the ongoing work of CETRAD, the host NGO for COMPACT in the Mt. Kenya region, it is expected that the community exchanges described above will continue as a way of adding value to projects,

ensuring sustainability, and enhancing the legacy of COMPACT's landscape approach in the region. Over the next several years the Mt. Kenya COMPACT initiative will continue to promote the methods of community-to-community exchange described above and develop new methods of exchange as a way of adding value to projects, ensuring sustainability, and enhancing COMPACT's landscape approach.

### Expansion of the Mt. Kenya COMPACT Initiative within the broader landscape

In its first eleven years the Mt. Kenya COMPACT initiative has used the landscape approach to link together communities surrounding the Mt. Kenya World Heritage site into a regional network of conservation projects. This network has been highly effective in raising awareness of environmental issues and increasing community participation in conservation activities throughout in the region. During this period, COMPACT has observed that the interactions of communities with the natural resources of the Mt. Kenya World Heritage site – such as migratory wildlife, water and forest products – extend well beyond the defined boundaries of the protected area and that conservation activities must therefore target adjacent landscapes as well. The Laikipia plateau, a semi-arid area to the west and northwest of Mt. Kenya, which has long supported abundant wildlife populations and human livelihood activities is one

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## PARTNERSHIP WITH THE INDIGENOUS PEOPLES' OF AFRICA COORDINATING COMMITTEE (IPACC)

“Through the ongoing work of CETRAD, the host NGO for COMPACT in the Mt. Kenya region, it is expected that the community exchanges described above will continue as a way of adding value to projects, ensuring sustainability, and enhancing the legacy of COMPACT's landscape approach in the region.

...the beauty of GEF/SGP and COMPACT is that though they support conservation of the environment, they acknowledge that people are important for this to happen. Their focus is very people-centered and they are supportive to indigenous people,

pastoralists and other marginalized people particularly in Africa.

The decision to have COMPACT expand their support to Laikipia will help the indigenous communities achieve some of the milestones of the N'djamena declaration of November 2011. These are mainly through:

- Adoption of traditional knowledge as good science to guide conservation and development practices in areas inhabited by indigenous people,
- Empowering women and reducing poverty amongst vulnerable

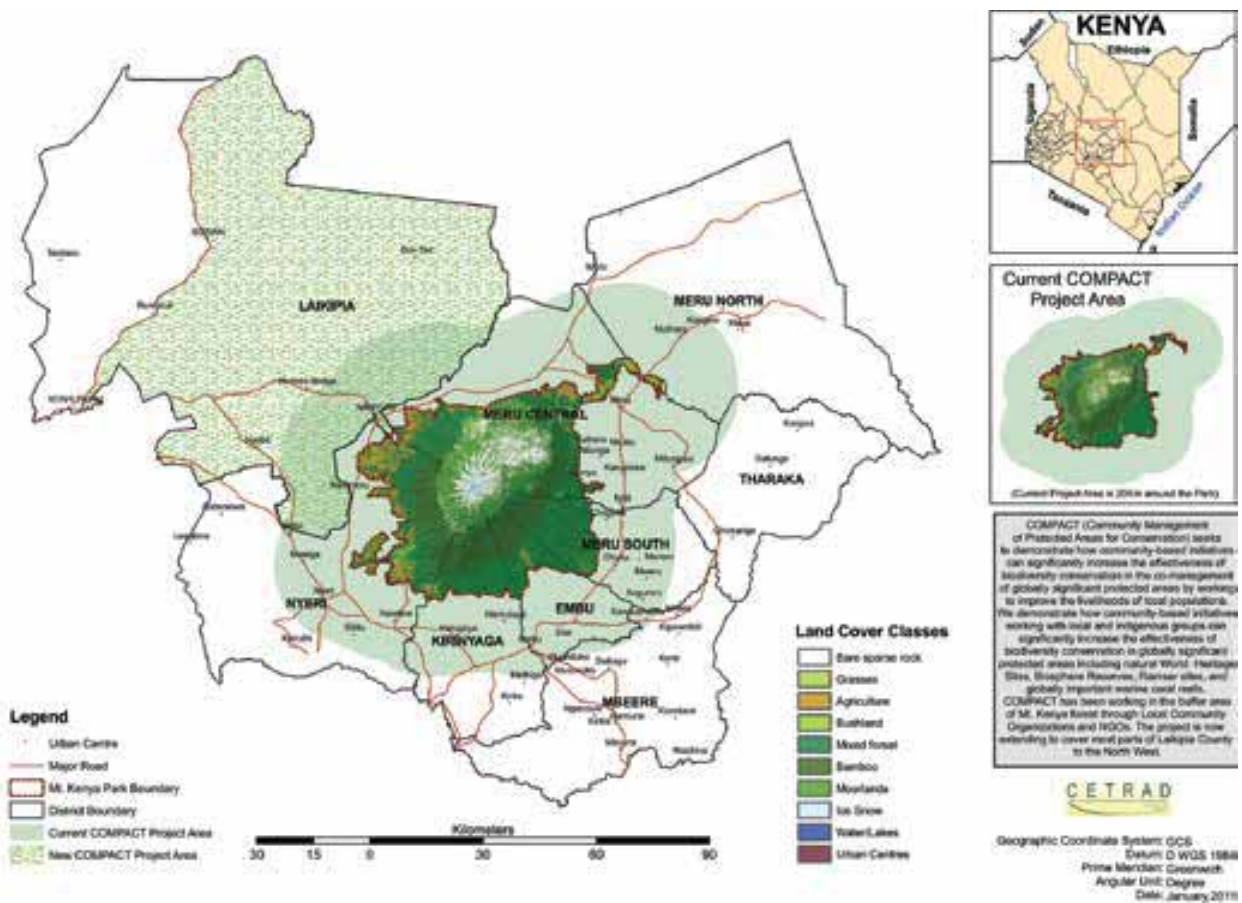
marginalized communities by promoting their traditional livelihood survival practices like livestock and bee keeping, and

- Promoting nature-friendly opportunities like ethno-tourism that creates awareness about cultural traditional ways of life and natural laws and supports low-impact tourism ventures....”

— Ms Jenifer Koinante Matunge, Indigenous Yaku Peoples' Coordinator and Vice President of IPACC<sup>8</sup>, Feb 2012.

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**FIGURE 14. MT. KENYA COMPACT PROJECT AREA**



such landscape. The condition of the Laikipia area is of critical importance to the conservation of the Mt. Kenya World Heritage site over the long term.

The Laikipia Plateau is home to large-scale ranchers, indigenous pastoral communities, commercial and small-scale farmers. It is one of the few remaining areas in Kenya with large populations of free-ranging, migratory wildlife that has not been granted status as a protected area. Many of these wildlife populations migrate between Laikipia and Mt. Kenya depending on the season and the availability of water, pasture and other types of food. Due to low quantities of rainfall, wildlife and human populations in Laikipia depend on the rivers that course through the plateau, many of which originate on the western slopes of Mt. Kenya. With increasingly irregular rainfall patterns due to climate change and growing populations in the more densely populated towns at the base of Mt. Kenya, the rivers of Laikipia have experienced significantly lower flow rates over the last decade. The overstocking of livestock

by pastoralists and ranchers has cleared all of the natural vegetation in many areas and the cutting of trees for fuel wood and charcoal production to supplement livelihoods has also caused depletion of natural resources and significant degradation of the land. These factors have negatively affected wildlife populations and decreased the ability of the natural ecosystem to support human livelihoods. As a result, human-wildlife conflicts have become very common and communities in the Laikipia region have increasingly become dependent on Mt. Kenya as a source of water, grazing pasture, and natural products (e.g. timber), which has also contributed to environmental degradation of Mt. Kenya.

Based on the strong linkages between the two ecosystems, COMPACT recognized the importance of supporting conservation and livelihood improvement activities in the Laikipia region in order to maintain and expand environmental conservation gains at the Mt. Kenya World Heritage site. Thus, with the start of GEF-5 phase in 2012, the Mt. Kenya COMPACT initiative has been expanding

*COMPACT Mt. Kenya has adopted extensive use of murals (painted by local artists) for transmitting environmental messages in local schools and other community meeting points. The programme has also helped fund the creation of an eco-cultural resource centre.*



to include the Laikipia region. COMPACT will draw on the experiences gained and lessons learned from its first decade of work within the Mt. Kenya World Heritage Site to ensure that the communities in Laikipia benefit through this expansion in a number of ways. First, communities in Laikipia will become more engaged and actively involved in the co-management of their natural resources together with government agencies and other conservation stakeholders. Reinforcing this responsibility will help to restore the sense of ownership and connection of communities to their environment and resources. Communities in Laikipia will also benefit through up-scaling and replication of successful projects in the Mt. Kenya region, which will provide a starting point for implementation of similar projects in Laikipia. The projects will also benefit from the established support network of conservation projects and partners including NGOs and government agencies.

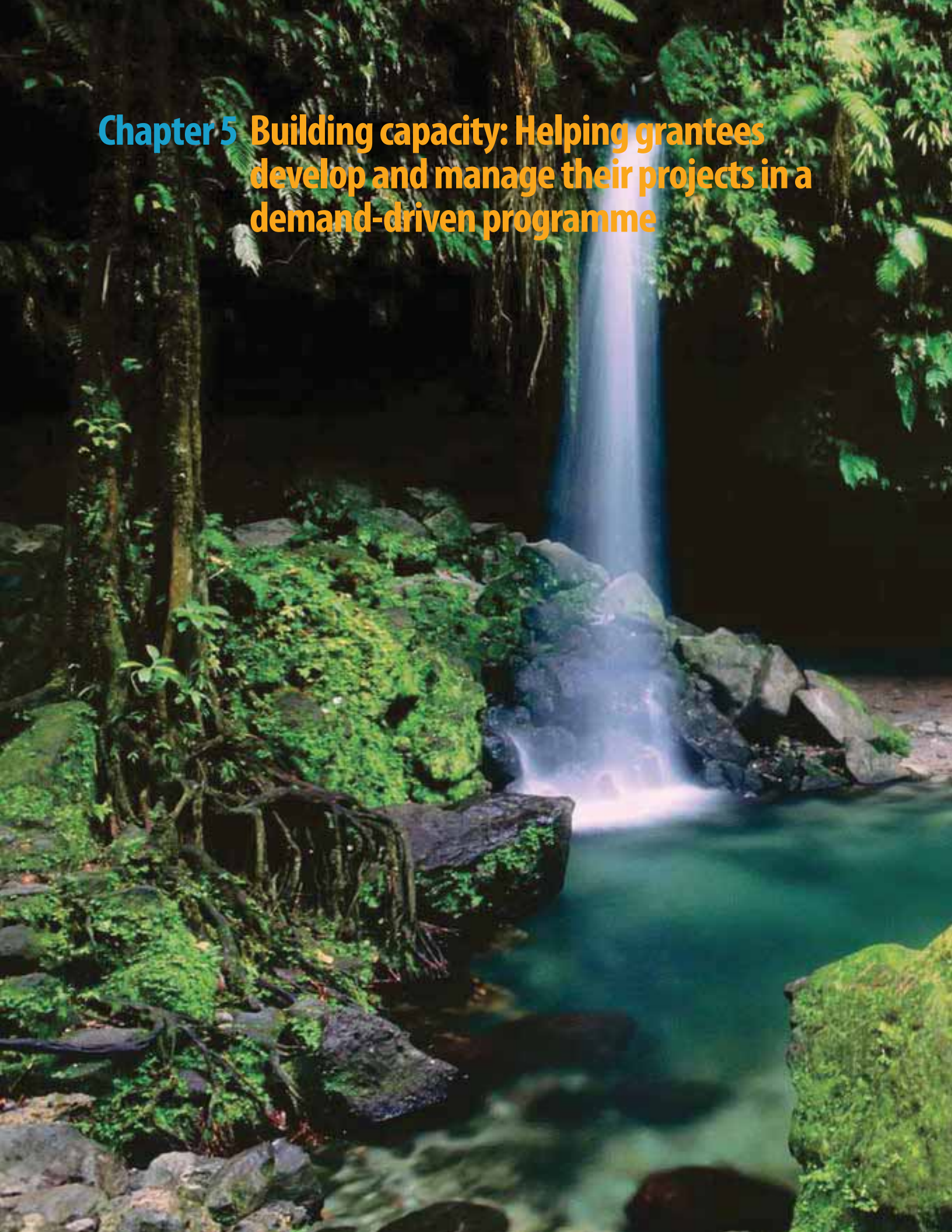
If successful, the expansion of COMPACT's work to Laikipia will enhance the overall landscape approach of the programme, helping to ensure long-term conservation and protection of the Mt. Kenya World Heritage site and the adjacent Laikipia Plateau. The initiative will also serve as a model for other COMPACT programmes on how to incorporate or expand to adjacent or nearby environmentally significant landscapes and, in so doing, benefit the targeted protected area.

## Endnotes

1. Gathaara, G. 1999. Aerial Survey of the Destruction of Mt. Kenya, Imenti and Ngare Ndare Forest Reserves. Kenya Wildlife Service. Nairobi, Kenya.
2. KWS. 2002. Management Plan for the Mount Kenya Ecosystem 2002 – 2007. Kenya Wildlife Service. Nairobi, Kenya.
3. Further information regarding the Open Standards for the Practice of Conservation and Miradi software can be found at the CMP website: [www.conservationmeasures.org](http://www.conservationmeasures.org)
4. COMPACT Community Consultation Workshops Report for Nyeri, Kirinyaga, Embu, Meru Central, Meru South and Laikipia Districts, 5th-27th March 2001. Nanyuki, Kenya.
5. The CDTF is a donor programme supported by the Government of Kenya and the European Union that shares a similar focus with COMPACT (i.e., promotion of environmental conservation, poverty reduction and improvement of livelihoods).
6. [mtkenyanetwork@yahoo.com](mailto:mtkenyanetwork@yahoo.com)
7. For more information about the on-line course see: <http://www.sgp-pops.org/>.
8. IPACC is the Indigenous Peoples of Africa Coordination Committee.



**Chapter 5** Building capacity: Helping grantees develop and manage their projects in a demand-driven programme





CHAPTER 5

## Building capacity: Helping grantees develop and manage their projects in a demand-driven programme

AGNES ESPRIT

### Introduction

As outlined in chapter 1 above, one of the central objectives of COMPACT has been to enhance the capacities of national Non-Government Organizations (NGOs) and Community-Based Organizations (CBOs) in the buffer zones and landscapes surrounding the selected globally significant protected areas. In each of the participating World Heritage Sites, local communities have been supported through a range of demand-driven capacity-building activities, extending over multiple iterations of grant-making and cycles of learning spanning between the year 2000 and 2012.

### COMPACT in Dominica

Established in July 1975 by an act of Parliament, the Morne Trois Pitons National Park (MTPNP)

was the first of Dominica's National Parks to be legally established. MTPNP which is located in the south central part of Dominica, and has an area of 16,980 acres, presents a rare combination of natural features of outstanding universal value (OUV), including some of the richest biodiversity in the Lesser Antilles. The park encompasses nearly all the catchments of the streams and rivers, and possesses some of the main physical and geological attractions including the world's second largest 'boiling lake', fumaroles, hot springs, three freshwater lakes, mud pots, sculpture vents, waterfalls, and five volcanoes.<sup>1</sup> The Park features five vegetation zones and has a wide range of flora and fauna. In 1997, MTPNP was recognized by UNESCO as a World Heritage Site (WHS) – the first site to be listed for its natural values in the Eastern Caribbean.<sup>2</sup>

*The Morne Trois Pitons National Park possesses the world's second largest 'boiling lake', fumaroles, hot springs, three freshwater lakes, mud pots, sculpture vents, waterfalls, and five volcanoes.*

*Overleaf: The Morne Trois Pitons National Park was the first of Dominica's National Parks to be legally established, and has some of the richest biodiversity in the Lesser Antilles.*



COMPACT Dominica was launched in September 2001 to support communities located on the fringe of the World Heritage site and test the underlying Theory of Change (ToC) underpinning the programme.<sup>3</sup> Building on the pioneering work of Margolius & Salafsky on ‘Measures of Success’ (1998) and community-based monitoring protocols, as well visioning processes developed by other conservation agencies such as CIFOR (Evans et al 2006), COMPACT initiated a series of preparatory steps to allow communities to “visualize” the challenges of an integrated conservation development programme (ICDP) being addressed. As in the other participating countries, a baseline assessment and conceptual model for the target landscape were formulated during the initial planning phase.<sup>4</sup> In addition, a communications strategy to facilitate community mobilization in ten target communities (identified in the conceptual model as being most implicated with the World Heritage site) was also drawn up. In 2003, a workshop for “major stakeholders” of the World Heritage site was convened where site-level issues and concerns were brought to the fore and addressed in an open and democratic manner. Following the baseline assessment and major stakeholder meetings, the Site Strategy was finalized with stakeholder inputs based on local experiences and readily available information.

Prior to COMPACT implementation in Dominica, many local communities in the MTPNP buffer zone depended directly on natural resources for their livelihoods – for food, including fish and meat, firewood, water, and material for shelter. A number of NGOs and CBOs were also actively engaged in development activities in the area, but few worked specifically on environmental projects. In this light, the Communication Strategy set out to increase awareness of biodiversity and sustainable development in relation to the specific conservation objectives of the protected area.

At the time of inception of the baseline assessment, it was also clear that local communities varied widely in their ability to conceptualize and propose projects. A series of training workshops was therefore organized for potential grantees by members of the SGP National Steering Committee (NSC). Based on the training workshops, draft concepts and proposals of varying quality were later submitted, indicating a need for significant further training and capacity building, especially in relation to environmental benefits, project preparation and reporting.<sup>5</sup>

The villages of Cockrane and Giraudel were among the first communities bordering the MTPNP targeted by the conceptual model. With support from the SGP National Coordinator in Dominica,



*The COMPACT Communication Strategy for Dominica set out to increase awareness of the existence of the World Heritage site, its biodiversity values and the sustainable development opportunities in relation to the conservation objectives of the protected area.*

the ‘Giraudel Flower Growers Group’ eventually applied for funds to assist in the design of a community-led botanical garden at the start off point of one of the main trails (called the ‘Morne Angle’) leading into the core zone of the World Heritage. When the application to COMPACT was selected for funding, the community became voluntarily engaged in the propagation and preservation of a number of delicate, rare and native species of flowers of Dominica (listed in a publication ‘Flowering Plants of Giraudel and Eggleston’ produced by the Association in 2009). For over ten years, since the first SGP grant provided to the organization in 2003, the group has continued to organize an annual flower show which is now a major national event listed in the national calendar of regular fixtures.<sup>6</sup>

In the village of Cockrane, the local community applied to SGP with a concept pertaining to bee-keeping and the farming of organic vegetables and herbs. Over the course of project implementation, the villagers of Cockrane later decided to diversify their food security plan by investing the funds from the grant into a small-scale livestock production initiative raising rabbits. At the time of project inception, little was known in the target community (mainly engaged in farming on the fringes of the WHS) about rabbit rearing for protein production. Based on the successful demonstration project, which was able to promote the widespread uptake of rabbit rearing as an alternative to hunting in the park, the initiative has since evolved into the popular annual ‘Cockrane Rabbit Festival’ included on the national register of listed attractions. As of 2012, the festival now attracts thousands of people to the village of Cockrane, triggering major sales of fresh produce, locally prepared meals, craft and other items – representing a significant increase in monetary income for the local community.

### Flexible proposal formats and implementation arrangements

An important guiding principle in COMPACT has been that considerable flexibility must be exercised in the format for project proposal, including the opportunity to use alternative media including video and pictorial proposals – providing everyone, in spite of their initial level of abilities, equal opportunities to access grant

funding for promising concepts. Throughout this process, the presence of the SGP National Coordinator (a national from the island of Dominica) has played a central role in enhancing the capabilities of local communities through proposal writing clinics, as well as by connecting them with dedicated mentors.<sup>7</sup> In the case of Dominica, additional trainings also included strategic leadership, monitoring and reporting methodologies (including the Miradi conceptual modeling software described above in chapter 4), and participatory methods in forest management.<sup>8</sup>

For a large number of SGP projects funded around the MTPNP (e.g. Giraudel, Cockrane, and Warmmae L’etang), planning grants averaging \$2,000 proved to be critical elements for proponents to undertake preparations for the eventual implementation of a regular small grant (up to a maximum of US\$50,000).<sup>9</sup> In addition, each full SGP project funded included an allocation for capacity building and training towards a specific skill set based on the identified needs of the beneficiaries. In the village of Cockrane, for example, the project design included tour guide training, computer literacy, as well as conservation education and public awareness components. Both theoretical and practical formats were utilized, with activities designed to suit the target groups.

As a result of the customized capacity-building approach, grantees’ negotiation skills could be developed and enhanced as they sought to build up partnerships and raise the necessary in-kind and cash co-financing for their projects. COMPACT grantees thus developed negotiation capacities in numerous ways: whilst designing their first concept and proposal, over the course of project implementation, as well as beyond the life of the SGP project as part of follow-up networking opportunities with other partners and donors. As grantees proceed in the project cycle, negotiation skills are gradually strengthened and refined as grantees grow more confident and capable to successfully negotiate with donors and partners. For example, following the implementation of their first project with funding from the SGP, the village of Cockrane obtained additional funds in 2003 from the Environment and Sustainable Development Unit of the Organization of Eastern Caribbean States (OECS) to expand their local environmental initiative.



COMPACT 'project management committees' cover different capacity-building needs of NGOs and CBOs including collective decision-making, supervision and ecological monitoring.

Another important feature of the COMPACT approach towards capacity development includes the creation of 'project management committees' for NGO implementation. The responsibilities of the management committees cover different aspects of decision-making, supervision and monitoring.<sup>10</sup> Members gain valuable experience, complement each other's knowledge, skills and talents, and are empowered in the decision-making process during and beyond the project implementation phase. Continuous monitoring supports the organizations and minimizes problems along the way, thus resulting in increased efficiency.

### Gender Mainstreaming

Women have equal opportunities to participate in all aspects of the COMPACT planning process including project design, decision-making and management. In Dominica, for example, the 'Toloma Women in Action' community-based organisation, a group of eight older women, received a grant to upgrade the process for production of *tous-les-mois* (arrowroot), a plant upon which they were highly dependent on for their livelihoods (and have traditionally always processed by hand). The capacity-building provided to the women for the improved processing of arrowroot can be seen reflected in a dramatically increased level of confidence demonstrated by the women in the marketing and promotion of their products. The men from the community were also

supportive of the project and all the *tous-les-mois* producers became excited and ready to supply the processing facility initiated by the women.

In other similar cases, the 'Morne Prosper Women Farmers in Action' and 'Giraudel Flower Growers Group' represent two further pro-active women's groups which have accessed SGP grants in the World Heritage site buffer zone. Through the two projects, jobs and business opportunities have been generated for both men and women. Enhanced access to financial resources, as well as increased education and knowledge on farming methods, has resulted in improved willingness for all participating members to engage with the World Heritage site – reflected in higher levels of motivation to prepare concepts for rewarding self-help initiatives.

### Recognizing and revitalizing traditional knowledge

The COMPACT methodology also supports communities' efforts to document and enhance traditional practices which have a demonstrated effectiveness in conservation. Some of the most common techniques identified in Dominica have included improved systems of traditional terracing, drainage ditches, dyke construction, fish and fruit drying methods, as well as through the construction of forest tracks using only locally supplied building materials.<sup>11</sup> Based on

the experience of project implementation in the field, promising and good practices are later shared with other organizations within the COMPACT network of national partners, as well as with outside agencies.

The indigenous *Kalinago* (Carib) people of Dominica are one of the important stakeholder groups for COMPACT in Dominica. Through their continuous use of traditional cultural practices over many generations, the *Kalinago* provide many practical examples of conservation and sustainable use of natural resources. When combined with increasing levels of conservation awareness and new technologies, the *Kalinago* continue to manage their forests and keep traditional craft skills alive. With support from COMPACT, the *Kalinago* community have implemented a reforestation project with a special focus on tree species required for building traditional dug-out canoes and medical purposes.

Through another SGP-funded project, the *Kalinago* Youth Path' undertakes production of herbal teas, specifically using traditional blends considered of special value by the *Kalinago* elders. To undertake the project, the youth conducted extensive research amongst the elders of the community, stimulating a lot enthusiasm and a strong sense of ownership among the whole *Kalinago* community. Other non-Carib community representatives also participated in the project by cultivating, harvesting and drying the relevant plant species. As a result of the project, a number of results were achieved by the *Kalinago* notably: (i) the traditional practices and knowledge of medicinal herbs were recognized by the wider community; (ii) the inter-generational transfer of traditional ecological knowledge (TEK) and experiences regarding medicinal plants was guaranteed; (iii) the indigenous group were better able to participate in the improved production process of medicinal plants; and (iv) the community were able to increase their income and improve their living conditions.

### Grantee workshops and donor forums

COMPACT grantees, both past and present, actively participate in various forums, either as participants, observers or presenters. As one important element in its design, the programme regularly facilitates grantees participation in trade

fares, expos, and regional exhibitions such as the 'Caribbean Agriculture Week'. In order to build the confidence of local communities, and to inspire other CBOs to come forward with innovative concepts and proposals, efforts have been made to give the most capable community-level grantees the opportunity to facilitate sessions at national-level workshops. In 2012, two grantees made presentations with primary school children on composting and bee-keeping at the World Environment Day (WED) 'Educational Forum', whilst a collaborating COMPACT grantee independently organized knowledge-sharing workshops on permaculture techniques with other local communities.

The 'COMPACT Grantees Forum' is another gathering of representatives of grantees and partner organizations, structured either as formal meetings, or as informal sessions to allow maximum interaction and sharing amongst grantees.<sup>12</sup> Through these regular gatherings, relationships are cultivated for networking, peer review, and further collaboration. The forums often taken place at project field sites where grantees get hands-on experiences and cross-project learning from the hosts' projects. Through rotation of venues from one project to the next, many grantees and voluntary experts serving on the SGP NSC visit several projects and can see firsthand what has been achieved.

Through a long-term approach towards capacity-building, the capabilities of local CBOs, NGOs and indigenous peoples are gradually developed as community representatives serving in multiple different capacities at workshops: as chair persons, reporters, time-keepers, presenters and facilitators. Workshop sessions for grantees include training in data collection, record keeping and project report writing, documentation, monitoring and public awareness and communications. Working in groups, community members are given opportunities to be team leaders and take on various roles in groups. By placing confidence in, and working directly with, village people as trainers, cultural elders are empowered to share and pass on their traditional knowledge.

Through a related 'Donor/Partner Forum' initiated by COMPACT in Dominica, organizations interested in addressing the threats and challenges that face the WHS have also been networked together to share information and plan

collaborative action. Through “convening power”, the Donor/Partner Forum for the World Heritage site has helped to avoid fragmentation of initiatives, minimizing duplication of actions, and promotes the pooling of resources towards their efficient and effective utilization for conservation of the World Heritage site. Furthermore, as donors and partners get more actively involved and knowledgeable about the WHS, a corresponding increase in commitments and advocacy actions to support the protected area have come about at the site level.

### Exchange visit, study tours and networking

As noted above, COMPACT grantees participate in numerous networks and umbrella organizations including the recently established ‘National Eco-tourism Association’ (which includes several SGP Dominica grantees engaged in eco-tourism activities). The association has become well positioned to access funding, training and other forms of support to advocate and negotiate as “one voice”. In particular, the experience of the association in working with COMPACT has empowered them to take on leading roles and contribute to the growth and development of the eco-tourism sector in the country. In addition, the MTPNP ‘Geotourism Stewardship Council’ (which blossomed from an initial grant provided by the ‘Friends of World Heritage’ at the UN Foundation) has developed a secretariat shared with the Giraudel Flower Growers Group. One of the core objectives of the Council is to provide training support for member organizations and access funding to implement activities for conservation and sustainable tourism.

Similarly, another former SGP grantee, the ‘South East Tourism Development Corporation’ has become a district umbrella organization of six communities on the south-eastern side of the World Heritage site. The organization has developed sustainable livelihood projects and conservation programmes for the participating communities. Some of their achievements include restored trails to natural attraction sites, which are now very popular bringing in revenue to local people who are engaged in providing services for visitors. Capacity-building and skills training for villagers provided by COMPACT have reinforced old relationships, forming new partnerships and networks, and

accessing additional funding for the district from the private sector, government and regional agencies.<sup>13</sup>

Site-based networking at the level of the World Heritage site enables significant cross-learning that will boost the civil society organizations’ ability to carry out tasks and functions that they are most suited to perform (such as engage with site-based advocacy campaigns). The networks established by COMPACT for the World Heritage site thus serve as conduits for access and exposure to new knowledge in areas relevant to conservation. As argued by Guerrero et al (2013), ICDPs may contribute to social network formation. In Dominica, the COMPACT network members share their knowledge and experiences, SGP grantees in Dominica have been able to further experiment with new and improved ways to implement and deliver projects efficiently and effectively (both as follow up grants from SGP, and from other donors). In general, networking builds social capital, trust, and a shared vision for the sustainability of the World Heritage site.

With the support of the SGP for its 5th Operational Phase (OP5), running from 2011-2014, work is underway to register more local NGOs in Dominica within the global GEF-NGO Network, through which they can access information on

*The ‘Giraudel Flower Growers Group’ is a women’s association which accessed a COMPACT grant in the buffer zone of the World Heritage site. Through the project, jobs and business opportunities have been generated for both men and women.*





*Training and capacity-building activities provided by COMPACT have been used to develop the capacity of small and medium enterprises (SMEs) dependent on tourism to the World Heritage site.*

funding and capacity building opportunities, events, and participate in GEF NGO Consultations and GEF Assembly meetings.<sup>14</sup> As of mid-2012, at least one former SGP Dominica grantee has participated in the GEF NGO Constituency meeting at the regional level, as well as other international knowledge sharing events.

### Knowledge management

Similar to other “structured experiments” in ICDP planning mentioned above (Blomley et al. 2010), documentation of social processes and results-based outcomes have been integral to the design of COMPACT. As outlined above, SGP grantees in Dominica and elsewhere have been encouraged, trained and supported to report and monitor all aspects of project implementation. Various forms of documentation are produced by the proponent organisations including reports, training manuals, publications, video productions and picture stories which are then subsequently made accessible to the public. Several venues are employed by COMPACT to ensure that the lessons learned and experiences of the project networks are shared with the local and global community. These include local town hall meetings, media programmes, as well as project fairs hosted by recipient NGOs and CBOs. Each of these occasions provide opportunities to showcase skills and knowledge, but also to further develop capabilities in a feedback loop of adaptive management of ‘learning by doing’.

At the local SGP office in Dominica (which is hosted by a national NGO), grantees’ reports are on display at a “knowledge corner” for easy access by all interested parties. The office is open to anyone who is interested in research, reading or learning more about the GEF Small Grants Programme and the COMPACT landscape-level methodology. Grantees are encouraged to spend time at the knowledge centre where they utilize available office tools and equipment, and get guidance and assistance from the SGP National Coordinator. In general, the experience in delegating the responsibility for compiling knowledge products to partners helps build the self-confidence, motivation and overall feeling of achievement of the SGP grantees. Having successfully completed an SGP project, many local communities feel empowered to advocate conservation issues at every opportunity, sharing their passion and disseminating educational materials and other productions from their projects.

### Partnerships and peer learning

Based on the experience of some twelve years of COMPACT project implementation in Dominica, it can be seen that NGOs and CBOs will readily cooperate with partners who implement similar activities (including other national projects) which complement their own. For example, SGP grantees have actively collaborated in the promotion of Dominica’s ‘Waitikubuli National Trail’, a 115 mile walking trail around the island that will allow rural communities to “sell their history, culture and experiences”, create employment and generate income, especially where the trail traverses or borders community villages. At the ‘Eco balance Biodiversity Centre’, which is part of the trail, hikers can stay overnight at the camp site and tour the organic farm at the base of MTPNP.<sup>15</sup>

Government agencies, departments and ministries have also actively collaborated with COMPACT in providing technical support, especially in project development, training and monitoring of projects. Departments include Forestry and Wildlife; International Co-operation; Agriculture; Fisheries; as well as the Ministry of Tourism. Among the NGOs are the Inter-American Institute for Cooperation on Agriculture (IICA), and the Caribbean Natural Resource Institute (CANARI). CANARI, a long term partner of the SGP in Dominica, provided training for the NC in 2012 to develop a cadre of local community



mentors. Overall, the dialogue and cooperation among agencies working with communities helps strengthen the projects as they are able to pool their knowledge and experiences, as well as make maximum use of limited budgets (including shared transportation). In addition, the regional South-South learning experiences with COMPACT Belize has provided mentorship opportunities to document successful SGP marine 'seascape' projects.

### Long term approach to capacity-building

As a result of over a decade of support to the World Heritage site, COMPACT Dominica has contributed to a steady growth in both the number and capabilities of NGOs and CBOs implementing environmental projects on the island of Dominica. As outlined in the COMPACT report *'Partnerships for conservation'* published in 2004, it took some time for the targeted village communities to understand the "landscape approach", including their specific role in contributing to the wider conservation outcomes developed through individual eco-friendly projects in the buffer zone of the protected area.

As of 2012, a large proportion of villagers now living near to the World Heritage site engage in eco-friendly cultivations, including composting, tree planting, sustainable tourism and other livelihood-based activities. Grantee organizations have also been supported in strengthening organizational structures through effective methods of management and revenue control. As such, many of the grantee organizations which started off as informal "farmer groups" have become formally registered NGOs by the end of their project implementation phase, and are now better positioned and recognized by other institutions agencies (UN Committee of Experts on Public Administration, 2006).<sup>16</sup>

Since the initiation of the baseline analysis for COMPACT in Dominica in 2000, there has been evidence of sustainable impacts in the country across several areas. Many sites now have institutionalized ecological practices to promote biodiversity conservation and preservation. Community representatives also have increased capacity and interest to manage facilities, teach conservation, monitor and evaluate projects, and have not been tempted to "revert" to past unsustainable practices.

Emphasis on the use of the participatory processes throughout the COMPACT cycle has resulted in the empowerment of local people to be directly engaged in the stewardship of both the natural, as well as the cultural, values of the World Heritage site. Through this approach, there has been greater appreciation for the environment and its OUV for humanity (as recognized by UNESCO) among the people of Dominica, and many civil society organizations have committed themselves to work to keep the MTNP as pristine as possible. The emergence of environmental clubs, especially among youth and schools, has been on the rise, sparking hope that future generations will continue to engage in the long term conservation for the World Heritage site.

The enhanced capacity of local communities also translates into the adoption of sustainable practices that are becoming the norm beyond the initial

*The 'Bellevue Chopin Organic Farmers Movement', one of the COMPACT grantees, is focused on reducing the utilisation of pesticides and other destructive activities which negatively impact the World Heritage site.*



*COMPACT has increased the number and quality of environmentally-friendly income generating projects in the buffer zone to the World Heritage site.*



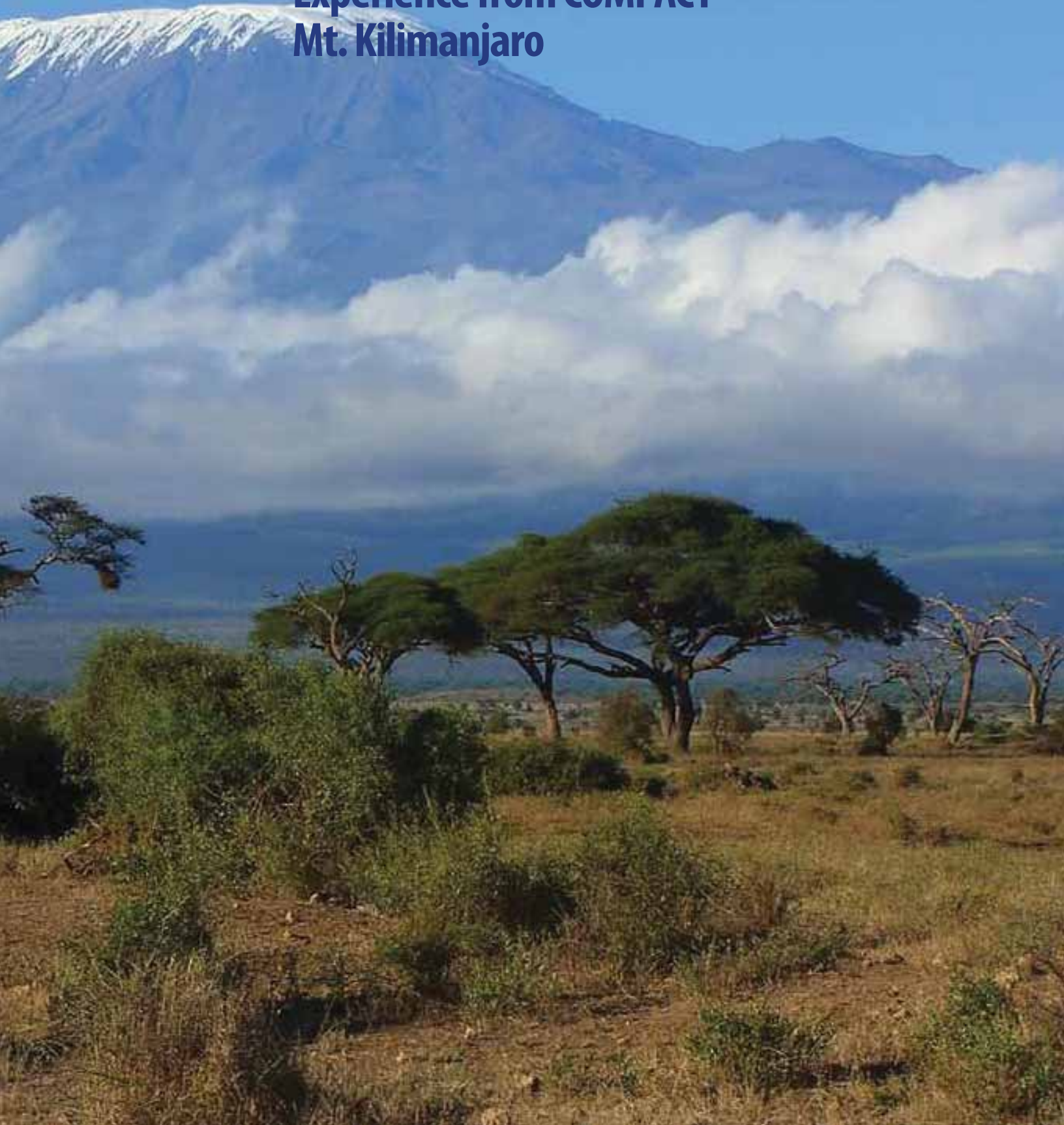
“pioneer group” of participating communities. Over the course of a decade of capacity building work, there has been a noticeable change in attitudes and practices for other communities adjoining the WHS – many now adopt ecological principles to preserve the integrity of the protected area. Where there are no demarcated buffer zones, the local people in the village of Cockrane on the fringe of the MTNP have also established their own buffer zones, and continue to develop new and innovative environmentally friendly livelihood practices. Where before the local communities were largely unaware of the existence of the World Heritage values of the MTNP, many can now be counted amongst the “first advocates” for the protected area.

## Endnotes

1. See ‘Morne Trois Piton National Park Management Plan’ 2002-2012 (October 2001).
2. See [http://whc.unesco.org/archive/advisory\\_body\\_evaluation/814.pdf](http://whc.unesco.org/archive/advisory_body_evaluation/814.pdf) (accessed 21 May 2013)

3. In July of 2005, as part of COMPACT Phase II, the target population was extended to include the Carib Territory and communities bordering the Morne Diablotin National Park, Central and Northern Forest Reserves.
4. COMPACT baseline assessment of five communities on the geographical fringe of the Morne Trois Piton World Heritage Site (2001).
5. Capacity Building for Biodiversity Conservation in the Commonwealth of Dominica – Needs Assessment (Jan 2005).
6. <http://giraudelegglestonflowers.communitytourism.dm/>
7. Some SGP grantees serve as mentors to less experienced NGOs and community groups. For example, one SGP grantee provided equipment and training to two youth organizations. Grantees also partner on activities for exchange of information and support along project type, focal area or geographical area.
8. See Caribbean Natural Resources Institute (CANARI) and FAO National Forest Programme Facility, Participatory forest management project: Improving policy and institutional capacity for development (June 2006).
9. SGP planning grants are generally \$2,500, whilst the limit for a regular full project is up to \$50,000.
10. In Dominica, some NGOs have preferred to establish an independent monitoring committee to thoroughly assess project progress and results.
11. See ‘Sustaining agricultural biodiversity and agro-ecosystem functions, opportunities, incentives and approaches for the conservation and sustainable use of agriculture biodiversity in agro-ecosystems and productive systems’ Rome, 1999.
12. Report of ‘COMPACT workshop for large stakeholders of the Morne Trois Piton WHS’ (January 2003).
13. Dominica Hotel and Tourism Association National Tourism Awareness Month, Community Development Workshop – Reports and Contact List (May 2008).
14. See ‘The GEF and Civil Society Organizations: A Strategic Partnership’ (May 2010).
15. ‘Promotion of Sustainable Tourism in the MTPNP WHS and neighbouring communities’, Michael B. Eugene (August 2009).
16. Urban Capacity Building Network (<http://www.gdrc.org/>)

**Chapter 6** Bringing communities into the  
management of protected areas:  
Experience from COMPACT  
Mt. Kilimanjaro





CHAPTER 6

# Bringing communities into the management of protected areas: Experience from COMPACT Mt. Kilimanjaro

NEHEMIAH MURUSURI AND VICTORIA NDERUMAKI

## Introduction

Around Mt. Kilimanjaro, the health of the mountain ecosystem and the livelihoods of the local communities are closely intertwined. This inter-dependence is generally well understood among the communities living on, or near, the slopes of the mountain. As a local saying goes “if Mt. Kilimanjaro perishes, we will all perish too.” The local people of Kilimanjaro depend on the mountain for a wide array of ecological services, including water (for domestic use, irrigation, livestock and hydropower), forest products, as well as regulation of the micro-climate. Local communities also depend on tourism and recreational activities generated by the protected area, representing an important source of income for about 20% of people in the region. Increasing

population pressures, subdivision of family plots for agriculture, and demand for natural resources, all threaten however the mountain ecosystems and biodiversity – in turn imperiling the livelihoods of the adjacent communities.

Operating within this challenging socio-economic context, COMPACT’s focus in Tanzania has been on balancing conservation and poverty reduction among communities in the landscape of the Mt. Kilimanjaro National Park (MKNP) and World Heritage Site (WHS). Recognizing that conservation actions cannot be undertaken without the long term involvement of the people closest to the resources, the programme has adopted a ‘protected landscape’ approach (see Brown et al 2005) which supports local communities in their

COMPACT Kilimanjaro has adopted a ‘protected landscape’ approach which supports local communities in their stewardship of the natural resources and biodiversity of the wider landscape.

Overleaf: At 5,895 metres, Mt. Kilimanjaro is the highest mountain in Africa.



stewardship of the natural resources and biodiversity of the wider landscape. In the process, COMPACT has developed new partnerships linking local communities, park management agencies, local authorities and other stakeholders in the stewardship and sustainability of the protected area.

Since its establishment in 2001, COMPACT Kilimanjaro has promoted the active involvement of local communities in the planning and management of the Mt Kilimanjaro World Heritage site.<sup>1</sup> As a result, critical human-induced threats to the protected area (such as forest fires and illegal logging) have declined significantly, while the livelihoods of participating communities have improved, particularly in the areas of food security, water access and income generation (Misana and Kulindwa 2009). COMPACT's decade of experience around Mt. Kilimanjaro in facilitating the involvement of local communities in management planning for the protected area, including its support of livelihood projects, are presented in this chapter.

### **Mt. Kilimanjaro: 'The roof of Africa'**

The MKNP was designated as a World Heritage Site in 1987 based on its superlative features as the world's largest single "free-standing" mountain, as well as its high biodiversity values. At 5,895 metres, Mt. Kilimanjaro is the highest mountain in Africa, and is often referred to as the "roof of Africa". A unique feature of the World Heritage site, the montane forest is home to a number of rare and endemic flora and fauna species. Despite its location near the equator, its summit has for living memory been snow-capped, also making it an iconic tourist destination. Descending from the summit, one passes through four major climatic zones: (i) high desert, (ii) heath and moorland, (iii) thick forest, and (iv) the lower slopes.

The rich biodiversity on the mountain includes 2,500 species of plant, 179 species of birds, 140 species of mammals, including the largest known population of Abbot's duiker, which is globally threatened. The mountain also serves as a water tower for the surrounding landscape and for communities throughout northern Tanzania. Hydrological flows from the mountain forest provide water for domestic use, irrigation and livestock. Mt. Kilimanjaro is a source of major rivers for the countries of Tanzania and Kenya, one of which is a key source of hydro-power for Tanzania.<sup>2</sup>



*Mt. Kilimanjaro is the highest mountain in Africa, and is often referred to as the "roof of Africa". Increasing demand for forest products and agricultural land has gradually started to destabilize the fragile mountain ecosystem.*

The communities living on the slopes of Mt. Kilimanjaro are highly dependent on its resources for growing food, collecting wood fuel, gathering medicinal plants and honey, as well as foraging for other non-timber forest products. The *Chagga* people are mainly subsistence farmers, using traditional agro-forestry methods to grow local varieties of crops and trees in their home gardens, as well as coffee as a source of cash income. The traditionally farmed lands are rich in agro-biodiversity. Land ownership on the slopes follows customary law according to a system called '*kibamba*' by which land is inherited by a family's sons. Family plots of land are subdivided over successive generations – a situation that now contributes to increasing population pressures on the fertile slopes of the mountain.

Over the years, increasing demand for forest products and agricultural land has gradually started to destabilize the fragile mountain ecosystem. Threats to the biodiversity of Mt. Kilimanjaro are many and include overuse of natural resources by local communities; degradation of land and water resources due to climatic events such as drought and floods; as well as loss of natural habitat through poverty, changes in land use, and loss of traditional knowledge.

### Management of the protected area

Mt. Kilimanjaro National Park was created in 1973, the first National Park in Africa. Its designation as a natural World Heritage site in 1987 has resulted in expansion of the protected area and stricter conservation measures.<sup>3</sup> In the 25 years since WH designation, the area of the MKNP has more than doubled, going from 756km<sup>2</sup>, to its current size of 1,658km<sup>2</sup> (TANAPA 2008). Initially, the National Park boundary was above the 2,700 m contour of the mountain, covering an area of 75,353 ha. In 2005, the MKNP was expanded to encompass the former forest reserve (designated in 1921) and the ‘half mile strip’ as part of a broader conservation strategy undertaken by the government to reduce illegal logging.<sup>4</sup>

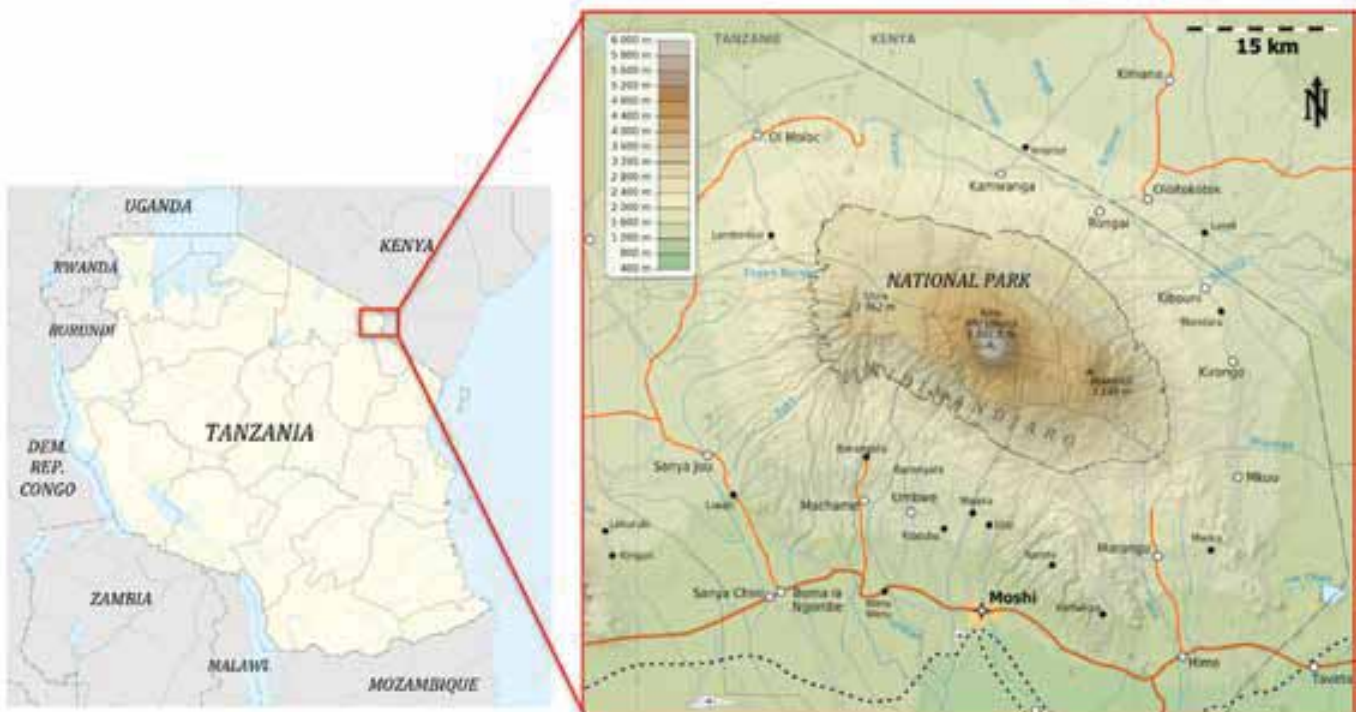
Expansion of the MKNP boundaries to include the montane forest subsequently responded to recommendations made by COMPACT following a 2001 aerial baseline survey of the Kilimanjaro region conducted with the support of UNEP (see Lambrechts et al. 2002). In the beginning, the expansion of the MKNP created tensions between the park authorities and the local population who

were concerned about reduced access to livelihood resources. As presented in this chapter, the introduction of the COMPACT programme played a central role in helping “bridge the gap” between meeting community needs and implementing the formal conservation strategy established by the protected area managers for the WHS.

Alongside 15 other national parks, the Tanzania National Park Agency (TANAPA) manages the MKNP and World Heritage site. The structure has traditionally been highly centralized, with an emphasis on enforcing conservation policies and rules. Each National Park forms the core of a larger protected area. TANAPA’s approach has generally been to protect and conserve nature, as well as to ensure that the communities are able to continuously benefit from the revenue derived from the parks. Park budgets are supported by visitor fees and other sources, and a portion of this revenue is targeted at adjacent communities to support local development and infrastructure.

In order to provide direct benefits and strengthen collaboration with local communities in the MKNP, in 1992 the Kilimanjaro National Park

FIGURE 15. OVERVIEW OF THE WORLD HERITAGE REGION



Authority (KINAPA) initiated a programme to share a portion of its revenue with adjacent communities to fund the provision of community services and infrastructure (such as schools, clinics, and water facilities). The COMPACT baseline study revealed that while these improvements were deemed to be important to communities, they did not have a major impact on individual households, where families were continuing to struggle to meet basic livelihood needs on smaller subdivided parcels of land. These families were actively looking for solutions to find alternative energy sources for cooking, to improve the harvest of crops, and increase the availability of fodder.<sup>5</sup>

### COMPACT in Mt. Kilimanjaro

In 2001, SGP Tanzania initiated COMPACT in Mt Kilimanjaro with the premise that conservation cannot be undertaken without the involvement of those people closest to the resources. In adopting the COMPACT model for the region, SGP-Tanzania built on its prior experience working directly with protected areas and indigenous peoples, such as the Maasai and Hadzabe (see Hay-Edie et al 2012). Since its launch in Tanzania in 1997, the SGP had worked in different parts of the country to engage local communities to contribute to the conservation of protected areas, including the Eastern Arc (one of 25 global biodiversity hotspots), the Rufiji Forest Reserve and the Selous Game Reserve (also listed as a World Heritage Site).

Following the standard COMPACT methodology at the global level, COMPACT Kilimanjaro completed three ‘critical steps’ as part of its planning process in the preparation of: (i) a baseline assessment, providing a rapid ‘snapshot’ of the site; (ii) a conceptual model as a diagrammatic tool to document site level processes, threats and opportunities; and (iii) a site strategy to highlight major threats, opportunities and priority actions. A Local Coordinator (Ms. Victoria Nderumaki) was subsequently recruited to work closely with the multi-stakeholder Local Consultative Body (LCB) responsible for reviewing and approving small grants to viable local community-based conservation projects.<sup>6</sup>

In 2000, in the first phase of COMPACT, local communities participated actively in the consultative review and preparation of the baseline assessment



*Despite its location near the equator, the summit of Mt. Kilimanjaro has for living memory been snow-capped – an iconic status now at risk from global climate change.*

of the socio-economic conditions and conservation status of the World Heritage site. In the process, communities listed and “self-identified” the main threats to the mountain ecosystem as being (i) ‘forest fires’; (ii) ‘encroachment for farming’; (iii) ‘grazing’; and (iv) ‘human settlements and poaching’.

In the prior decades, the conservation of Mt. Kilimanjaro had relied on a formal “policing approach” conducted by the protected area managers. Through the COMPACT baseline assessment, the programme learned that local communities had little information about park regulations and policies, and often resented the presence of armed rangers in “warlike uniforms.” Most importantly, local communities did not value the protected area conservation policies, nor any of the local benefits arising from the MKNP and World Heritage site. During the consultative process, it became clear that the policing approach had generally fueled enmity between the communities and the protected area authorities, while threats continued to degrade the mountain resources.

Another dimension identified during the baseline assessment was an observation that the three institutions responsible for the protected area had “not been coordinating effectively”. Following a COMPACT stakeholder forum, an initial success of the programme arose when the government announced its intention to bring together the management responsibility for the MKNP under

a single agency, thereby offering the potential for more effective coordination and site management (Hay-Edie, Ganapin & Wells 2004).

As noted above, a key element in the baseline assessment for COMPACT in Kilimanjaro was an aerial survey conducted in 2001, which analyzed the status of forest cover on the mountain. The survey revealed the extent of threats to the forests of Mt. Kilimanjaro, including illegal logging, landslides, charcoal production, livestock grazing and other agricultural activities (Lambrechts et al 2002). In collaboration with other partners, COMPACT published the survey in 2002, and launched it an event that drew significant attention from policy-makers, donors and media. In response to these findings, the government decided further to expand the MKNP boundaries to include more forested areas, as part of its broader conservation strategy.

*From 2001-2012, COMPACT has made the protected area buffer zone a focus for integrated conservation development projects (ICDPs) supporting a wide range of local initiatives – including the establishment of woodlots, manufacturing briquettes and biogas projects to enable communities to meet their energy needs.*

While expansion of the park to include the forest reserve had positive implications for conservation, it initially contributed to increasing the existing tensions between the park authorities and the local communities, particularly where the boundary came close to the land of local villages. Between 2001-2012, COMPACT has thus made this “boundary area” a focus for integrated conservation development projects (ICDPs), supporting a wide range of local initiatives – including the establishment of a number of woodlots on village land to enable communities to meet their energy needs for fuel-wood and other forest products on land

outside of the national park. It has also supported activities to increase local awareness and understanding of park rules and regulations, encourage greater benefit-sharing with local communities from ecotourism, as well as support participation by local communities in developing the updated management plan for the World Heritage site.

### **Involving local communities in management planning for Mt. Kilimanjaro**

Responding to the challenges posed by conflicts between local populations and the authorities, in 2006 COMPACT helped facilitate the involvement of local stakeholders in the development of the General Management Plan (GMP) for the Kilimanjaro World Heritage site. The programme provided funding for the consultation process, as well as technical and advisory support for a series of stakeholders’ meetings leading to the development of the GMP. The participatory process brought in a variety of stakeholders, including local community leaders, NGOs, CBOs, tourism operators, as well as representatives of park management authorities. The local communities were represented through the village leadership (typically the chairperson and environmental committee leader for each village). These individuals held meetings with residents in their home villages, and then represented their views in the stakeholder workshops leading to the preparation of the GMP.





The GMP for Kilimanjaro (which covered a ten-year period) envisioned active cooperation between stakeholders and explicitly recognized the importance of community involvement in management and protection of the national park's resources (KINAPA 2006). Since the time of the preparation of the GMP for Kilimanjaro, COMPACT has helped to complement many of the planned field activities identified as priorities in the plan.<sup>7</sup> These have included rehabilitation of the mountain climbing trails to avoid soil erosion and increase tourist safety; training of mountain guides and porters; conservation education; tree-planting; support to local livelihoods, alternative energy, and agricultural activities.

### Supporting sustainable tourism on Mt. Kilimanjaro

A key area of the GMP for Mt. Kilimanjaro relates to promoting sustainable tourism with the involvement of local communities. In this regard, sustainable tourism continues to be seen an important source of revenue for the MKNP, as well as the basis of income-generating activities for local households. The GMP identifies several intervention areas in this area including: improving and diversifying tourism activities, introducing new climbing routes, and encouraging local communities to initiate ecological and cultural tourism activities.

The Mt. Kilimanjaro “climbing value chain” has a high proportion of pro-poor expenditure relative to other economic activities in the area. The majority of guides, cooks and porters who work with mountain trekking expeditions and other tourists visiting Mt. Kilimanjaro come from the local communities, typically from impoverished backgrounds (Mitchell et al 2009). These activities generally involve a direct transfer of cash from international tourists to these local guides, porters and cooks, thus contributing substantially to the livelihoods of households in communities near to the mountain.

Shortly after the development of the GMP, COMPACT supported the rehabilitation of the ‘Machame trail’, which ascends Mt. Kilimanjaro and is a popular route among experienced hikers. With over 300 visitors/day in the high season, plus porters and guides, visitation to the park puts pressure on Kilimanjaro’s trail system and



*The Norwegian Government (NORAD) has supported the COMPACT participatory approach for Mt. Kilimanjaro. In 2004, the Crown Prince of Norway praised the initiative in his capacity as UNDP Goodwill Ambassador.*



*COMPACT Kilimanjaro has contributed to community-based eco-tourism and rehabilitation of mountain climbing trails to avoid soil erosion and increase tourist safety.*

slopes. While more physically challenging than the ‘Marangu trail’ (also known as the “Coca Cola route”), the Machame trail is preferred by many climbers for its spectacular views and the fact that it passes through a variety of habitats. The 18 km trail is relatively steep and often muddy, requiring regular maintenance. The COMPACT-supported project to rehabilitate the trail hired workers from nearby communities, providing income to local households and raising COMPACT’s profile locally among guides, porters and tourists to the area. Improvement of the trail helped protect biodiversity along the route by reducing threats

from potential erosion and trampling, while ensuring a better visitor experience for climbers and other tourists.

In a related activity, COMPACT supported a training programme for local guides, porters and cooks who accompany climbers and other visitors to the park. With COMPACT support, the Mweka College of Wildlife Management (through its tourism department) provided training in topics related to ecology and conservation; low-impact trekking; management of fires after cooking; trash collection and other issues. Receiving a certificate of training from the Mweka University programme proved highly advantageous for the guides and porters, who found that it helped boost demand and pay for their services. In parallel, the visitor experience for tourists was improved. The conservation education programme also helped ensure that the local guides and porters now act as “stewards of the mountain” and its resources whenever they are climbing and leading treks within the World Heritage site.

### COMPACT’s work in Kilimanjaro

In the period from 2006–2013 since the GMP for Kilimanjaro was adopted, COMPACT has conducted a range of activities to support of the GMP’s objectives. With a view toward reducing duplication of efforts and increasing community participation in the management of MKNP, the COMPACT site strategy has incorporated recent management changes within the ‘Kilimanjaro Outreach programme’ as well as the regional community development strategy.<sup>8</sup>

Since 2005, a core objective of COMPACT has been directed towards recognizing the linkages between poverty reduction and natural resource overuse and degradation in the Mt. Kilimanjaro landscape. To this end, COMPACT Kilimanjaro supports community-led projects that improve the returns on the existing assets of the poor while conserving biodiversity.<sup>9</sup> Many of these projects are located within the buffer zone of the national park which include:

- Promoting sustainable energy and the wide adoption of renewable energy practices to reduce fuel wood usage, including fuel-efficient stoves, solar power generators and use of biogas.
- Developing the technical capacity of NGOs to raise environmental awareness increase

environmental literacy in communities who are dependent on the mountain resources.

- Achieving integrated natural resource management and conservation based on active participation and cooperation by local people, government institutions and international agencies.
- Coping with climate variability, particularly in vulnerable communities on the dry lower slopes of Mt. Kilimanjaro where climate variability is resulting in problems with irrigation and increased competition for water between upstream and downstream users.
- Increasing communities’ access to markets for local products in order to help ensure the long-term sustainability of community projects.

Some examples of COMPACT projects within the buffer zone of the protected area include a project to introduce improved bee-keeping methods – which has dramatically reduced the incidence of bush-fires in the Kilimanjaro Forest. Working with a community association, COMPACT helped train local beekeepers and provide them with access to improved bee-keeping facilities. Prior to this, forest fires had been a common consequence of traditional bee-keeping practices which rely on “open fires” to harvest honey. The shift to improved bee-keeping practices helped reduced forest fires and has improved overall forest management. Beekeepers now report seeing an incentive to protect the forest to ensure an optimum environment for the harvesting of honey. An increase in production, coupled with support in distribution of the honey (marketed with a “Mt. Kilimanjaro” label) has enhanced access to food, as well as cash income, for the local communities.

Another COMPACT project helped introduce cultural and ecological tourism along the River Whona. With COMPACT funding the project constructed a “natural hall” under the shade of nearby trees to serve as a place for tourists to learn about the indigenous *Chagga* culture. Conservation of the riverbanks through tree-planting and introduction of cultural tourism options has increased the popularity of the area as a tourist destination. Many visitors now lodge at local *Chagga* farms, learning about local culture and contributing to the local economy. As a result of the project, some 5,000 trees have been planted along the riverbank and local farmers have been



*With an increase in eco/cultural tourism, local communities are finding that it is actually more profitable in economic terms to conserve the river and waterfall than to divert the water for irrigation purposes.*

encouraged to plant trees on their farms. With the increase in eco/cultural tourism, local communities are finding that it is actually more profitable in economic terms to conserve the river and waterfall than to divert the water for irrigation purposes. As a result, downstream water-flow has increased, with the benefit that a proportion of lowland farmers have reported a reduction in conflicts over water uses and are enjoying improved incomes.

The cultural practices of the *Chagga* communities have shaped the slopes of the mountain and the landscape over time. Although this cultural landscape is not officially recognized as a Category V protected area, it has many of the characteristics of a protected landscape, including a wide variety of agro-biodiversity (Amend et al 2010). The *Chagga* home gardens are rich in locally adapted varieties of crops and trees, and wild crop relatives. To help sustain this cultural landscape, COMPACT has supported the conservation of traditional varieties of crops and trees on the slopes of the mountain. More than 7000 African Blackwood (*Dalbergia melanoxylon*) trees have been planted, restoring to the slopes of the mountain a tree species that had been disappearing from the Kilimanjaro

region. COMPACT has supported the planting of traditional crops, such as air potatoes (*Dioscorea bulbifera*), great potatoes or yam (*Dioscoreaceae*) and Oyster nut (*Telfairia pedata*) to ensure the continuation of these varieties.

Responding to growing water shortages within the Kilimanjaro landscape, COMPACT worked further with water users' associations on projects aimed at reducing conflicts over access to water and improving the quality of water sources (see Box in this chapter). In one example involving communities that rely on the Soko spring, COMPACT supported local water users' associations in constructing a cattle trough located at a distance from the spring. The project was designed to reduce conflicts among residents who collect water from the Soko spring for domestic use, and those who rely on the spring to water their livestock. Prior to construction of the trough, trampling by cattle and goats was diverting the water flow and causing it to become turbid and unsafe for domestic use. Now that there is an alternative site for residents to water their livestock, the water at the source of the spring is cleaner and water-flow has increased downstream.



*Responding to growing water shortages within the Kilimanjaro landscape, COMPACT worked with water users' associations on projects aimed at reducing conflicts over access to water and improving the quality of water sources.*

### **Institutional sustainability for COMPACT Kilimanjaro**

An exciting result of COMPACT's work in Kilimanjaro has been the creation of a vibrant civil society network of grantees known as the 'COMPACT Kilimanjaro Network' (COMPAKIN). The COMPAKIN network was established to help grantees to support each other after COMPACT's support ends. The network of NGOs and CBOs has developed a strong "joint voice" that is enabling them to solicit funds and technical support from government and other donors. COMPAKIN provides a forum for grantees and other community groups to share information and knowledge with each other. Complementing this effort, close collaboration between the COMPACT programmes in Kenya and Tanzania has led to exchange visits and study-tours among communities on both sides of the border.

COMPACT Kilimanjaro is also participating in the WH-LEEP programme (described in Chapter 10 of this volume) to provide business development services (BDS) to prepare local small businesses organizations to be able to apply for biodiversity-friendly loans in areas including honey production, ecotourism, agro-forestry activities aimed at improving coffee production, as well as sustainable energy practices. For example, the programme helped Kilimanjaro Industrial Development Trust (KIDT) apply for a BDS grant to produce fuel-efficient woodstoves

and fuel briquettes from sawdust collected from lumber mills. Given that the majority of households near Mt. Kilimanjaro depend on wood for energy, the briquettes (which are less expensive than fuel-wood) offer significant potential to cut down on the use of fuel-wood and to save money.

### **Outcomes of COMPACT's work in the Mt. Kilimanjaro landscape**

After a decade of COMPACT's work within and around the Mt. Kilimanjaro, a number of benefits to communities and to the protected area can be observed. According to a study that documented the role of COMPACT-supported activities in poverty reduction (Misana and Kulindwa 2009), over the past decade there has been a significant reduction of human-induced threats – forest fires, illegal logging and poaching – through the improvement of livelihoods of participating local communities. Other notable results noted by Misana and Kulindwa include the following:

- Local communities are more aware of the importance of conserving the World Heritage site and its Outstanding Universal Value (OUV) on behalf of the global community;
- The GMP for MKNP (covering the period 2006–2016) explicitly recognizes the importance of involving local communities and includes strengthening of this relationship as one of its objectives;

- The landscape approach, linking people's needs and biodiversity conservation, is now mainstreamed into regional-level development planning processes;
- Cultural methods of biodiversity conservation are being revived and strengthened;
- Improved relations between MKNP authorities and local communities;
- Income-generating activities, agro-forestry and improved irrigation infrastructure, are contributing to the well-being of local communities through provision of environmental services; and
- Numerous local community organizations now have strengthened internal organizational and financial capacity, becoming stronger and more confident as a result.

## Conclusions

COMPACT has increased the active involvement of local communities in planning and management of the Mt. Kilimanjaro World Heritage site. Having played a key role in facilitating local community participation in developing the General Management Plan in 2006, COMPACT expanded its focus to include strategic input into related



*Income-generating activities, agro-forestry, and improved irrigation infrastructure, are each contributing to the well-being of local communities through provision of environmental services.*

## WATER RESOURCE USERS ASSOCIATIONS

In countries such as Tanzania and Kenya, water resource users' associations play an increasingly important role in preventing and mediating conflicts among communities over access to water. Until recently, management of water resources was handled by the central government through a department responsible for monitoring resource availability, allocating it to users, and ensuring compliance. Declining budgets have however sharply reduced government capacity for monitoring and enforcement, creating an "open access" situation regarding water resources. At the same time, growing populations, expanding agricultural activities, and development on riparian lands place growing pressure on water resources, while erratic rainfall patterns associated with climate change contribute to a reduced supply of water

from springs and rivers. Increasing demand for water for livestock, irrigation and domestic uses has contributed to conflicts among "upstream" and "downstream" users.

Water resource users associations (WRUAs) provide a platform for community participation in managing water resources, representing the interests of a broad range of stakeholders within a given watershed while coordinating closely with the responsible government entity. Their activities include conservation education, rehabilitation of water catchment areas and canals, and developing community protocols for water allocation.

In the Mt. Kenya region, COMPACT has been helping local WRUAs to mobilize networks of residents involved in monitoring water quality and quantity.

These groups have installed measuring devices at designated points with visual aids that alert users to potential water shortages. Network members serve as local scouts, identifying point source pollution sites and notifying the relevant authorities of violations. A COMPACT-supported project in the Mt. Kilimanjaro region is demonstrating the use of biologically treated wastewater for rice cultivation. Through this pilot project, led by a local WRUA, the use of treated wastewater has resulted in a two-fold increase in rice production and a lower cost to the farmers, who do not need to purchase fertilizers. The project has sharply reduced the demand for spring water, decreasing the frequency of water shortage conflicts in the area.

planning exercises, such as the protected area's Outreach Programme, as well as the Kilimanjaro Regional Development Strategy. These inputs have led to conservation and development approaches in the Kilimanjaro region that strengthen partnerships between stakeholders and, importantly, link local communities with government planning processes.

Further, COMPACT's work in the Kilimanjaro landscape has demonstrated that conservation-led enterprises provide communities with economic incentives to conserve their natural resources, and rather than treat wildlife as a threat to their livelihoods, now see species living on the mountain as the long term basis of sustainable livelihoods. In collaboration with the protected area authorities, local NGOs and other institutions, COMPACT is now working on broader capacity-building and sustainability initiatives within the local communities adjacent to the World Heritage site. Looking ahead, continuing SGP support to the COMPAKIN grantee network will work to address the increasing impacts of global climate change, supporting communities in developing their adaptive capacity to cope with changes in water availability and other related challenges.

## Endnotes

1. SGP 2011. Country Programme Strategy UNDP/GEF SGP Tanzania.
2. Government of Tanzania, Ministry of Water Resources 2009. 'The Water Resource Management Act 2009'.
3. TANAPA 1994 'National Policies for National Park in Tanzania' Tanzania National Parks National Policy Committee.
4. TANAPA 2008 Mt. Kilimanjaro National Parks General information (accessed on 24/01/2012)
5. In an attempt to include participatory elements, methodologies like Joint Forest Management (JFM) and Community-Based Forest Management (CBFM) had been tried with mixed results.
6. In Tanzania, the LCB recommendation is submitted for the final approval by the SGP multi-stakeholder National Steering Committee (NSC) in Dar-es-Salaam.
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9. COMPACT Field office 2007. COMPACT Kilimanjaro Site Strategy 2007.

**Chapter 7** **COMPACT Madagascar:**  
**Conservation at the landscape**  
**scale across a mosaic of different**  
**governance regimes**





**CHAPTER 7**

## COMPACT Madagascar: Conservation at the landscape scale across a mosaic of different governance regimes

FALIARIMINO RAKOTOMANANA AND VOLOLONIAINA RASOARIMANANA

Since its inception as a country programme in 2006, the GEF SGP in Madagascar has adopted the COMPACT landscape approach as an integral part of its Country Programme Strategy (CPS) to conserve biodiversity, as well as to reinforce the World Heritage nomination of the “cluster of dry forests” in the South West region. The approach takes into account different governance considerations in the buffer zones and wider landscape connecting a mosaic of government-listed protected areas. Through the conceptual model and site strategy developed in the early planning stages, COMPACT Madagascar has helped conserve the integrity and ecological functions of farming lands, pastures, water resources, coastal and marine zones, as well as forests locally managed by communities.

As in other countries described in this volume, COMPACT Madagascar entrusts responsibility to multiple local and regional actors at the landscape scale, with a particular focus on the organizational, institutional and financial “autonomy” of local community-based organizations (CBOs). According to the site strategy, a key objective of the programme is for local CBOs to become “*effective, credible, and efficient partners in the sustainable governance and management of natural resources and environment*”. Based on an adaptive ‘learning by doing’ approach, the programme has continued to evolve over the course of different funding cycles of the GEF. Every two years, the landscape site strategy is re-assessed by the Local Consultative Body (LCB) and SGP National Steering Committee (NSC) in the light of the field projects implemented on the ground.

*COMPACT Madagascar entrusts responsibility to multiple local and regional actors at the landscape scale, with a particular focus on the organizational, institutional and financial “autonomy” of local community-based organizations (CBOs).*

*Overleaf: Madagascar is characterized by exceptional landscapes and biodiversity marked by high levels of endemism, often at the level of entire biological families, genus and species.*





Influenced in part by the ongoing socio-political crisis affecting Madagascar since 2009, a number of protected areas, including World Heritage Sites, having adopted “multi-stakeholder approaches”. Based on a partial breakdown in conventional PA management arrangements handled by government agents, the accelerated decentralization of local governance arrangements have in many cases proved to be a more resilient and effective strategy in conserving natural resources currently under threat. In this light, the practical experience of COMPACT in the South-West of Madagascar deserves to be shared, adapted and implemented around other protected areas and ecosystems in other parts of the country.

### Madagascar World Heritage cluster nominations

Madagascar is characterized by exceptional biodiversity values marked by high levels of endemism, often at the level of entire biological families, genus and species. Despite the existence of a network of about forty protected areas (PAs) managed by the state, studies carried out between 1995 to 2000 showed that the majority of biodiversity (approx 80%) still extends beyond these official areas. In this context, in 2003 at the 5th World Parks Congress in Durban, South Africa, the government made a resolution to “triple the surface” of its PAs from 2 to 6 million hectares (or 10% of the island).

With this target in mind, the government also decided to revise the protected areas code to reflect the different global management objectives (I to VI) recommended by the IUCN.<sup>1</sup> Similarly, to complement the state-controlled governance of PAs generally practiced at the time, the protected areas code was also modified to integrate different forms of governance, including community and/or shared governance, as well as private protected areas.<sup>2</sup>

In June 2007, a cluster of “humid forests” composed of six protected areas, stretching along the East coast of Madagascar was inscribed in the World Heritage list. In addition, in the same year the country started preparing the nomination files for the “dry and spiny forests” located in the southern and western part of the island. This draft WH nomination, also drawn up in 2008, is currently awaiting an end to the political transition in the country.



*The 2008 Tentative List for UNESCO World Heritage nomination describes the dry forests as variable in relation to the level of maturity of the site management and governance arrangements.*

In ecological terms, the South West region of Madagascar forms a transition between the dense dry forest of the west, and the spiny forests of the South. The dry forests are marked by historic fragmentation, and only a few big isolated blocks still exist. Recent biological inventories indicate that these blocks are nonetheless very important to conserve Madagascar’s biodiversity due to the huge number of locally endemic species, including an extraordinary heterogeneity in flora and fauna, found even between relatively close sites.<sup>3</sup> Alongside this biological wealth, a high level of vulnerability of habitats can be found due to high levels of extreme poverty and isolation of rural communities.

The creation of new PAs, as well as the search for improved management and collaborative governance constitute some of the primary means to conserve the integrity of these threatened landscapes. In this regard, the Malagasy state expects that the natural values of the Madagascar dry forests are likely to meet the UNESCO criteria of outstanding universal value of a World Heritage site. However, the government also acknowledges that the majority of PAs in Madagascar are either relatively recent, or are in the “creation” and/or “consolidation” stage. As a result, the participatory process will require time, and the 2008 Tentative List for World Heritage describes the dry forests as “spread in time and space” according to the relative maturity of the site management and governance arrangements.

In 2006, the COMPACT programme in Madagascar decided to focus its efforts on the threatened ecosystems and vulnerable local populations spread across three zones in the South West region of the country (the poorest part of Madagascar), including the following PAs proposed to the WH Tentative List:

- The **Mahafaly Plateau** including the national park of *Tsimanampesotse* that is legally managed by Madagascar National Parks;
- The **Mikea complex** consisting of the Mikea forest, a new PA whose core is officially managed by Madagascar National Parks, and whose buffer zones, including some marine and coastal zones, are collaboratively managed with local communities;
- The **Belomotse Plateau** including two new PAs designated to be eventually co-managed by the local communities (*Amoron'Onilaby* and *Tsinjoriake*).

### **Mahafaly plateau**

The *Mahafaly* plateau has previously been considered by the Madagascar government as a “mixed” World Heritage nomination which displays both natural values (Ministry of Environment and Forests), as well cultural values (Ministry of Culture and Communication with the University of Antananarivo).<sup>4</sup> The landscape is located to the south of the city of Toliara on the chalky plateau

bordered by the Mozambique marine channel in the west; by the *Onilaby* river in the north; and by the *Menarandra* river in the south. The natural habitat of the plateau is characterized by a dense bush (dominated by species of *Euphorbiaceae* and *Didieraceae*) in a sub-arid landscape with unique organisms adapted to drought and extreme heat: baobabs, leafless trees, succulent vegetation, euphorbias with caustic latex, as well as exotic ‘octopus trees’ with thorny candelabra.

Different elements of the landscape governance mosaic include the *Tsimanampesotse* national park (TNP), managed by Madagascar National Parks; the *Nosy Vé* marine park, managed by an inter-community association; and several community sites which make up the landscape. For its part, the TNP is part of the first ten parks created in Madagascar in 1927. In June 2005, its initial surface area of 43,200 hectares inscribed at the time of nomination, was further extended to cover 207,000 hectares to reinforce the integrity and viability of the habitat’s ecological functions. A large sulfurous lake found within the park was also nominated as the first international Ramsar site in Madagascar.

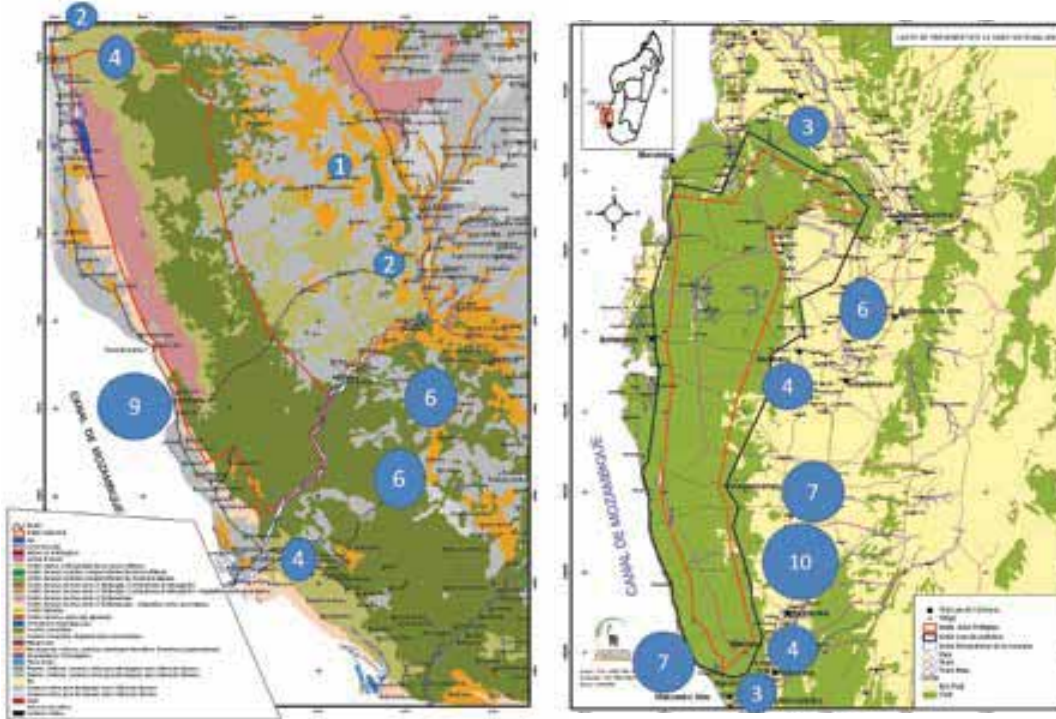
The local population of the plateau, estimated to be 302,000 inhabitants, generally know how to take advantage from the hostile and thorny vegetation. Rain subsistence farming represents the main economic activity, whilst raising livestock is extensive. Trans-humance (seasonal migration) has also been practiced by the population over

## **HIGH LEVELS OF ENDEMISM IN SOUTH WEST MADAGASCAR**

The center of the TNP is a karst formation with an important underground hydrographic network. The biological diversity is relatively low in relation to other sites, but endemism is very high. 75 to 90% of its fauna and flora are endemic. The park has 112 species of birds including 5 of the 9 existing species of *Coua*; 42 species of reptiles; 4 species of lemurs, of which two are diurnal (*Lemur catta* and *Propithecus verreauxii*), and two are nocturnal (*Microcebus griseorufus* and *Lepilemur*). Among the flora, the TNP is characterized by 185 plant species including *Calicalicus rufocarpalis*, *Xenopirostris* and *Newtonia Archboldi*.



**FIGURE 16. THE MAHAFALY PLATEAU AND MIKEA FOREST**



Two maps showing the the Mahafaly plateau (on left) and the Mikea forest and marine complex (on right) which make up part of the cluster of protected areas within the “dry forests” of South West Madagascar.

several generations. In coastal areas, marine fishing remains the main activity for coastal communities. The natural resources of the plateau are however confronted with significant anthropic pressures as a result of illegal cutting of woody resources, poaching, out-of-control bush fires, clearing forest land, charcoal production, encroaching dunes, and drying up of water sources.

**Mikea forest and marine complex**

The *Mikea* forest and marine complex, home to fifteen rural communities, is located to the north of Toliara, and extends over 200 km with a surface area of 338,366 hectares at an elevation of 0 to 200 meters. The forest is made up to two phyto-geographic domains: the West dominated by dense dry forest, and the South dominated by thorny forests.<sup>5</sup> The creation of the *Mikea* national park, formalized in September 2011 as a category II protected area managed by Madagascar National Parks, has a surface area of roughly half the complex (184,630 hectares).

According to government plans, it is expected that eventually most of the *Mikea* complex will be redesignated as an IUCN category V protected area consisting of a national park managed by

Madagascar National Parks,<sup>6</sup> alongside a mosaic of community-managed protected areas governed by local and indigenous communities. In 1998, an inter-community association comprising most of the local communities of the *Mikea* forest landscape (FIMAMI) was created. The association’s objective has been to protect the *Mikea* zone’s forests and biodiversity, and works in close collaboration with the government protected area authorities in strengthening the community management in the buffer zone. In 2008, the population of the *Mikea* zone was estimated to be 191,697 belonging to five main ethnic groups. The *Mikeas*, formed by two of these groups which live in (and from) the forest, are semi-nomadic. Whilst remaining forest-based indigenous hunter-gatherers for most of the year, some of the *Mikeas* recently became farmers at the forests’ border during the growing season.

As demographic pressure has increased with the arrival of new migrants, forests have been cleared for agriculture and charcoal production, with a corresponding increase in the illegal cutting of timber and poaching, wildfires from pastures, each contributing in turn to increasing soil erosion and silting of streams and coastal areas.

## Belomotse plateau

The *Belomotse* Plateau is part of nine priority conservation areas identified in 1999 through a multi-stakeholder consultation with regional partners which proposed the middle and lower *Onilaby* as a conservation hotspot which would require community co-management. The *Amoron'Onilaby* has an important system of watershed basins and river and lake zones. The natural habitats in the zone feature dry gallery and thorny forest, mangroves, as well as humid areas.<sup>7</sup> As elsewhere in Madagascar, the area is confronted with several threats to natural resources including illegal cutting of wood, vegetation cover loss through forest clearance, as well as poaching. In addition to its biodiversity values and natural habitats, the zone also has important tourist potential.

Since 2005, two initiatives have been developed to strengthen the sustainable development of the zone by creating community-managed PAs which recognize customary governance. The new PAs are located to the south of Toliara in an area composed of sixteen rural communities, many of which live along the *Onilaby* river. In 2006, a file requesting the creation of an IUCN category V protected landscape, including an extension of community governance arrangements, was submitted to the Ministry of Environment by the promoters which included the regional representatives of the Ministry of Environment and Agriculture, along with an international NGO, WWF Madagascar.

*In ecological terms, the Belomotse plateau is constituted by a dwarf forest called 'Andatabo' with a number of recognized "pharmacy forests" for the collection of medicinal plants.*

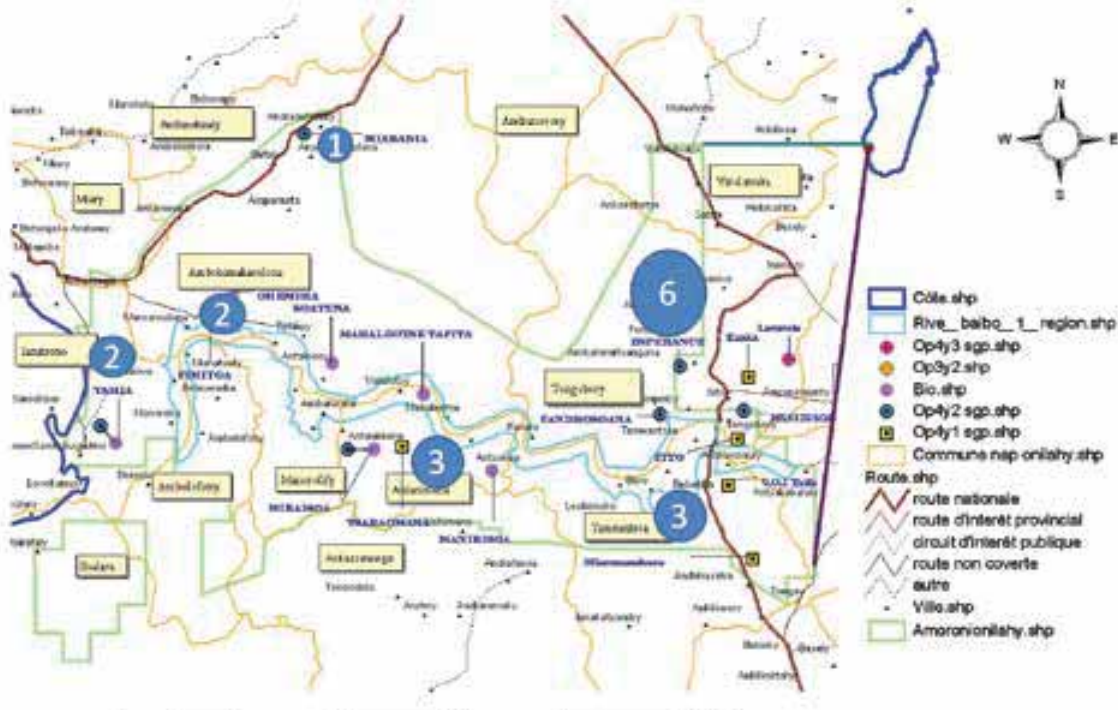
From a total surface area of 131,200 hectares, the plateau now has 33,804 hectares dedicated to 'core' or 'priority' conservation zones; 17,542 hectares under restoration; 64,863 hectares for the buffer zone; 9,980 hectares for ecotourism development; and 15,011 hectares for agricultural and fish production. Decentralized management rights have been accorded to the inter-community association (OHEMIHA), which regroups the local communities neighboring the protected area and cooperates closely with the Regional Direction of Environment and Forests.<sup>8</sup>

Similarly, the *Tsinjoriake* PA reflects another community initiative in the landscape governance mosaic. In ecological terms, the area is constituted by a dwarf forest called '*Andatabo*', as well as a marine and coastal zone known as a tourist attraction due to its outstanding natural beauty. The region is rich in biodiversity with a recognized "pharmacy forest" of medicinal plants, as well as extensive caves home to fifteen species of bats, some of which are unique to Madagascar.

In early 2007, a temporary protective decree for the site was obtained for the community association (TAMIA) regrouping the two rural villages of *Betsinjaka* and *St. Augustin* (translated in 2008 to represent the "future managers" of the area). In total, the area now has a surface area of 5,855 hectares with 1,854 hectares of 'core zone', constituted



**FIGURE 17. COMPACT COMMUNITY CONSERVATION INITIATIVES IN THE BELOMOTSE PLATEAU**



mainly of thickets on limestone to preserve the integrity of the forest block; 1,473 hectares of ‘restoration zone’, composed of degraded areas; and 2,100 hectares of ‘buffer zone’, demarcated for controlled human use and occupation. In accordance with the zoning plans agreed upon with the government, the community association is expected to cooperate closely with the Regional Board of Waters and Forests in the management and governance of the protected landscape.

**Restituting responsibility to empower local communities for the good governance and management of natural resources**

In Madagascar, most rural communities are organized according to their ‘lineage’, each of which corresponds broadly with “units of natural resource management” upon which their daily life and everyday needs closely depend. Each of these groups typically have their own culture, dialect and way of life. Throughout Madagascar, these customary groups are referred to collectively as “*fokonolona*” which can generally understand each other through the official Malagasy language which is spoken across the country. The diverse *fokonolona* may thus be considered to be the oldest organized

institutions that have managed forests, waters and lands in Madagascar since ancient times.

Successive regimes of Malagasy royalty, French colonization, socialism and capitalism have tried to appropriate these natural resources for redistribution. None of these regimes were however capable of erasing the *fokonolona* as the primary customary organizations regulating rural decision-making. During the many social, economic and political crises that have periodically shaken the country, the *fokonolona* have shown tremendous strength and solidarity. Since the 1940s, political regime changes have however been occurring more frequently, roughly every seven to fifteen years.

Given the remoteness of many rural areas, as well as the poor transport infrastructure, state-controlled and private institutions have great difficulty in managing natural resources by “command and control”. Increasingly, the government of Madagascar has come to realize that the *fokonolona* may be entrusted with the responsibility to manage and govern natural resources at the local level. As noted above, in 1997 the Malagasy state passed a law called ‘Secured Local Management’ (GELOSE) declaring that the State may officially “transfer” the governance of natural resources to self-organized

communities that formally request the transfer of management rights and responsibilities.

In the South West region of Madagascar, over fifty official management transfers now exist in the three intervention zones of COMPACT. Several sites are also managed *de facto* by communities organized into customary lineages. Prior to the introduction of the GELOSE law, CBOs had seldom directly managed projects with donor funds. In general, either the official protected area authorities or local NGOs would “do it in their place” up to the point of the preparation of a work-plan for specific activities. Many communities were then generally abandoned to fend for themselves, or in the best case, received limited management training whilst the larger institutions continued to receive significant administrative support from donors.

As part of the socio-economic baseline analysis and discussion with stakeholders, the COMPACT landscape assessment and site strategy showed that for CBOs to be truly efficient and effective in their management roles for natural resources, a number of areas of intervention would need to be addressed:

- Improvement of the policy and regulatory framework to permit CBOs to take local

decisions on the use of the natural resources in their territories;

- A minimum investment into capacity building tools to manage natural resources including techniques of sustainable use/valorization of natural resources, monitoring and assessments;
- Means of sustainable livelihood responding to communities’ human rights and everyday needs in order to reduce their vulnerability and total dependence on natural resources, and/or external forms of support;
- To meet these needs, the COMPACT programme decided to focus its efforts to reinforce the management and governance capacities of the CBOs through direct implementation of SGP projects. Based on approximately six years of implementation of projects since 2007, small-scale CBOs have taken significant steps in taking direct responsibility and building their organizational and financial autonomy.

Compared to several decades of top-down “awareness raising” efforts, the relative autonomy and empowerment of the rural CBOs (distinct from their formal ‘independent’ status as recognized by the GELOSE law) is increasingly seen as a precondition to being considered as credible partners in negotiations with the private sector, national or international actors. As one of its objectives, the COMPACT Local Consultative Body (LCB) in the region recognized that CBOs would not be able to enter into co-management or shared governance arrangements if they always “depended on ideas and financings” from others. As part of the community empowerment process, communities should increasingly be able to choose their partners, defend themselves against outside interests, and fight for the sustainable development and valorization of the natural and cultural resources found in their territories.

### COMPACT in South West Madagascar

Most of the communities in the *Mikea* landscape have traditionally lived from slash-and-burn and swidden agriculture. According to the traditional rotational cycle, communities would previously burn and clear forest lands every five years, allowing for regeneration of secondary vegetation

COMPACT community conservation initiatives in the Belomtse plateau



called ‘*monka*’ in the space of about fifteen years. At the same time, however, the communities of *Amaron’Onilahy* also engage in unsustainable practices, such as the production of charcoal from natural forests. Across the *Mahafaly* plateau, agriculture suffers from a lack of water, so that forest fires and the introduction of zebus and livestock in the forests are hard to control.

Following an assessment of the key threats to the plateau conducted by COMPACT as part of the conceptual model for the area, an awareness and communication campaign on the vision and opportunities offered by the programme was prepared. In this context, rural CBOs were invited to submit projects concepts for support which consisted in:

- Implementing sustainable livelihoods that would address basic food security needs whilst respecting the biodiversity and ecological functions of ecosystems in the dry forests regional landscape;
- Revitalizing traditional ecological knowledge of sustainable management and valorization of natural resources, including adjustments through improvement practices where appropriate;
- Organizing rural communities to take common decisions and positively commit themselves to the good governance of natural resources within the context of their own territories, the regional landscape, and at the national and global level.



The COMPACT Local Coordinator (pictured left) plays an important role in building the capacity of CBOs to enter into co-management or shared governance arrangements with the government.

Since the initiation of COMPACT between 2007-2013, rural communities reliant on the forests, coral reefs or aquatic resources in the region, have been directly supported for a range of small grants covering: equipment, materials and fertilizers for sustainable agriculture; sustainable fisheries; development of local ecotourism; handicraft activities; fish farming; and sustainable management of livestock and animal husbandry. SGP small grants are delivered directly to a bank account in the name of the community-based organization representing the interests of the *fokonolona*.

**FIGURE 18. COMPACT MADAGASCAR DISTRIBUTION OF PROJECTS 2007 TO 2011**

Themes	Number of SGP projects			SGP grants provided (US\$)		
	Mahafaly	Mikea	Amaron’ Onilahy	Mahafaly	Mikea	Amaron’ Onilahy
Sustainable management of forests and sustainable agriculture	25	37	12	\$423,200	\$525,100	\$141,900
Sustainable management of mangroves, forests and promotion of ecotourism, algae culture and others means of sustainable subsistence	3	4	3	\$31,000	\$67,000	\$97,500
Sustainable management of lakes, marine zones, coral reefs and responsible fisheries	6	3	1	\$66,500	\$51,000	\$13,000
<b>TOTAL</b>	<b>34</b>	<b>44</b>	<b>16</b>	<b>\$520,700</b>	<b>\$643,100</b>	<b>\$252,400</b>

The programme also provides CBOs with the services of an organizational and technical support team co-financed by the Tany Meva Foundation office in Toliara (also host to the COMPACT Local Coordinator).<sup>9</sup> On average, the technical and capacity building provided to the CBO lasts for three years. As of mid-2012, over ten “unions of CBOs” have entered into their second phase of support from the GEF SGP in Madagascar (see table below). Each of the community project includes two important components:

Social contracts, called ‘*dina*’, are drawn up as part of the management plan for the sustainable use of natural resources, reforestation, or restoration of ecosystems;

**Horizontal exchange, knowledge management, and communication.**

**Case study: the fokonolona of Andravitsazo**

From 2007 to 2010, the *fokonolona* of Andravitsazo (MANDROSO) in the Mikea zone received support from COMPACT with a small grant of \$8,000.<sup>10</sup> As a result of the first small grant and technical assistance provided, farm production has now increased approx 100% on 120 hectares of swidden plots on formerly cleared lands. Food security has been improved with a reliable supply of cassava and dry beans, a warehouse has been built to reliably store farm products, and some turkeys have been acquired through the sale of farm

products. Families and the school which received improved stoves report that their need for fuel-wood for cooking has decreased by 80%. Overall, the CBO has become more responsible in the management of the forest and its natural resources, and the clearing of the forest to establish new fields has been stopped through the social contract (the *dina*) and organized community patrols against illegal encroachment.

On the occasion of a site visit to the project by the UN Resident Coordinator (RC) in Madagascar, Mrs. Fatma Samoura, the villagers were proud to share with the delegation their traditional knowledge of fire management, care for newborn babies, and the way to consume the ‘*baboho*’ (yam) from the forest. The UN RC noted that “*I’ll never forget my visit to Andravitsazo, because within a little time I learned so many things*”, and called upon the community to “*preserve its culture, in which they are so proud, while sharing it with the outside world*”. Similarly, the SGP National Coordinator, Mrs. Vololoniaina Rasoarimanana, noted that “*it is one of the first SGP projects to be closed, but work goes on*” urging the community to be attentive to the marketing needs of products, and to constitute a revolving fund to meet other challenges. With fresh water still at 12km from the village, improved primary education and basic healthcare were identified by the community as the next “sustainable development challenge” to be addressed.

**FOOD SECURITY IN THE MIKEA ZONE**

“With the support of the COMPACT programme our forest is better preserved, we are now reassured. We can now have everything we need in terms of food: forest products such as ‘*baboho*’ (yams) and ‘*sora and trandraka*’ (a kind of hedgehog) are now lastingly managed with the fokonolona to generate products coming from the valorization of the monka.”

—Rendala, a descendant of the Mikea tribe





### Case study: the Bay of Ranobe

The Bay of *Ranobe*, found within the marine zone of the *Mikea* landscape/seascape complex, is part of the fringing barrier reef of South West Madagascar – the third largest in the world in terms of its size. The coral reef is rich in biodiversity and constitutes a sanctuary for numerous pelagic fauna and flora. The reef also depends on the health of other coastal ecosystems, including mangroves and shallow seagrass beds. The presence of these three inter-linked ecosystems is vital for the growth and reproduction of numerous fish, birds and other marine species, as well as for human health and well-being.

Over the last decade, the composition of the fish catch brought in by coastal communities has experienced a gradual reduction in both quantity and size. This degradation of the marine environment can be attributed to the concentration of fishing in the “internal sea beds” on the near-shore side of the barrier reef. In addition, the abusive practice of destructive fishing by some fisherfolk has reduced the surface area occupied by coral. In addition, inward immigration and population growth have put further pressure on mangroves for household energy needs and fodder for cattle.

In 2007, thirteen villages along the coastline of the *Ranobe* bay grouped together to form a new community association (FIMI HARA) to develop a sustainable means of living by encouraging the conservation of the ‘Roses cluster’ coral reef in *Mangily/Ifaty*, as well as three other community marine reserves, established with technical support provided by the NGO ‘Reef Doctor’. A year later, the association received \$20,000 in financial support from COMPACT, alongside co-financing of \$4,550 from the Tany Meva Foundation. Over the course of three years of implementation, the preliminary results from the project have been encouraging, notably:

- 2 community-managed marine reserves, including the ‘Roses cluster’, are now operational with ecotourism developed in partnership with tour operators, leading to the creation of village-based jobs for boat rides and local guides;
- 13 ‘information and communication boards’ have been installed in every village to improve the sharing and management of information relating to sustainable management of natural resources, and development of sustainable fisheries;
- 11 fishing boats, each sustaining 5 to 10 households, have replaced their illegal fine mesh nets with authorized fishing nets;
- 60 households have converted themselves to seaweed cultivation and have been equipped with tables for drying, canoes, and the necessary small-scale equipment for processing; according to the NGO ‘Transmad’, which technically assists the community “*seaweed cultivation helps feed each household of algae growers at the rate of 250,000 Ar (\$125) per month which is triple the previous income, and women also have a greater share in the exploitation*”;
- 3,5 hectares of mangroves have been restored in *Songeritelo* and *Beravy*, and sustainable management of 43 hectares of mangroves has been reinforced in *Andrevo*;
- Administrative and financial management capacities of the CBO representatives have been reinforced by the technical assistance and capacity building programme financed by the Tany Meva Foundation;



3,5 hectares of mangroves have been restored in *Songeritelo* and *Beravy*, and sustainable management of 43 hectares of mangroves has been reinforced in *Andrevo*.

- Reports from communities note that keystone marker species encountered in and around the community reserves have improved in both quantity and in diversity.

In the final stage of the project, the community association has benefited from co-financing provided by the Tany Meva Foundation to set up a system of ecological monitoring of marine resources, as well as management planning, to be achieved over the next 3 to 5 years. In this context, the community association is planning to extend the federation to include additional coastal villages, as well as to further develop the coastal and maritime zone for ecotourism, seaweed cultivation, and other alternative livelihood projects.

**Case study: support to a network of sacred natural sites**

At the southern end of the *Mahafaly* plateau between the *Linta* and *Menarandra* rivers, a network of community-managed forests has also been supported by COMPACT. The forests fall within the priority conservation areas of the dry forests WH nomination identified in 1997 by

WWF outside the *Tsimanampesotse* national park.<sup>11</sup> The landscape abounds in sacred natural sites (SNS), cultural and ritual areas, traditional pastures and restricted access zones. The management of the traditional knowledge and the protection of the sacred natural sites has been transmitted from generation to generation.

Due to increasing migration of outsiders, cattle transhumance, as well as long periods of drought, some modifications to the local cultural practices that affect the governance of these areas has begun to take place (in particular for the SNS located at some distance away from the nearest villages). As part of the COMPACT site strategy for the landscape, twelve community initiatives (for a total sum of \$226,500) aiming to support the governance of the traditional territories and the protection of the SNS have been supported by COMPACT and the Tany Meva Foundation since 2009.

Although the *de facto* recognition of the community management of 58,000 hectares of territories have been provided by the government to the traditional guardians, no “definitive legal title” yet exists for the SNS. In this regard, the

Twelve COMPACT community initiatives aiming to support the governance of traditional territories and the protection of sacred natural sites have been funded at the southern end of the Mahafaly plateau.



possibility for the recognition and registration of the area as an ‘indigenous territory and community conserved area’ (ICCA) at the international level under the Global ICCA Registry, managed by the UNEP World Conservation Monitoring Centre (WCMC), reflects a potential “additional measure” to consider in combination with the domestic legal title for the management transfer.

Other important problems also persist: commercial trade in land tortoises; localized conflicts in land use; conflict between forests users; as well as mining exploitation. In particular, individual community organizations lack the power to fight organized traffickers of wildlife, and illegal harvesting of timber by foreign interests. As a consequence, a number of CBOs decided to “team up” at the landscape level to constitute a network of communities managing natural resources. The regional network, coming from the three zones of COMPACT intervention in the South West, is now in the process of being connected with the wider network of organizations working with the GEF SGP at both the national, as well as international levels.

**Collective decision-making towards improved governance**

Over the last ten years, the strong mobilization of numerous donor partners has been taking place in the *Mahafaly* plateau for the conservation of the priority landscape/seascape (e.g. Madagascar National Parks, WWF Madagascar, COMPACT, SAGE and GIZ). As of mid-2012, about twenty-three agreements for the establishment of ‘management transfer committees’ have been implemented for natural resources found in the buffer zone around the 210,000 hectares of the TNP. Following an initial “three-year probationary period”, the majority of the communities in the area have also benefitted from a renewal of their contracts for a further ten year period.

As noted above, the community association ‘Intercommunity Association of the *Mahafaly* Plateau’ (AICPM) was created some ten years ago to regroup fifteen communities to reinforce the decentralised management of natural resources in the *Mahafaly* landscape. In 2007, the AICPM was subsequently restructured to more adequately represent the interests of communities in the



*As of mid-2012, about twenty-three agreements for the establishment of ‘management transfer committees’ have been implemented for natural resources found in the buffer zone around the Tsimanampesotse national park.*



Many of the customary organizations supported by COMPACT include *fokonolona* at the level of each village. Preliminary assessments of the eleven different projects have demonstrated a general reduction of pressures on the protected area and the neighboring forests.

stakeholder committee managed by Madagascar National Parks. The reorganization was supposed to reinforce the capacities of the different members of the association. In 2008, the organization received a further \$65,000 in support from the SGP and Tany Meva to achieve its objectives at the landscape level to control inward migration, eradicate invasive plants, and create a channel to help communities reduce pressure on forests through improved irrigation practices.

Through the presence of COMPACT in the region, a total of 11 CBOs out of 23 around the park were financed with a total envelope of approx \$131,000. Some of the organizations supported represent several *fokonolona* and have been recommended to “anchor their actions” at the level of each village. The assessments of the eleven different projects (extending over 218,261 hectares, 41% within the conservation zone, 33% for pastures and crops, and 26% for usage rights) have demonstrated a general reduction of pressures on the PA and the neighboring forests. These landscape level outcomes are the results of the improved capacity of numerous communities towards forest restoration, implementation of ecological monitoring, valorization of forest resources, development of sustainable farming, and improved water management practices.

The improved management capacity, and socio-economic situation, of the CBOs funded by the SGP and the Tany Meva Foundation has enhanced both the results and legitimacy of the ‘management transfer committees’ required by the government under the decentralized GELOSE legislation. In terms of regional governance, every action plan at each stage of the projects have been brought for validation at the *fokonolona* ‘General Assembly’ which represents the primary decision-making body for making collective decisions on the use of common natural resources in the landscape.

**Long-term vision for shared governance of protected areas**

Based on this first cohort of “self-directed” projects completed successfully, numerous rural CBOs in the South West of Madagascar have demonstrated their capacity to receive grants to protect threatened ecosystems. Over the course of two to three years, the CBOs have been provided with significant support on technical

and financial management. In the second stage of the process, the CBOs have been encouraged to create “revolving funds” with a portion of the revenue and economic benefits derived from the investments. The community funds are expected to provide a sustainable pool of resources to encourage further productive investments guided by sound environmental decision-making.

At the third stage, future grants in the target region (either from the GEF SGP or other donor partners) may be mobilized as “matching funds” to the community funds.<sup>12</sup> In this regard, the replenishment of the community trust fund will depend on the ability of the community institutions to strategically plan and manage the financial autonomy of the resources over the medium to long term. In view of the organizational baseline and capacity of the CBOs, a clear system to monitor the results, effects and impacts of the funds will be required – in particular given the recent history in Madagascar of unexpected natural and institutional crises.

The long term legitimacy of the CBO federations will hinge on their ability to negotiate in favour of “local community values”, and on the principle of equitable sharing of benefits received from the common property resources. To carry out further advocacy work, the federations may also wish to mobilize their landscape level networks to “carry the voice” of the communities managing natural resources in the South West to national and international policy forums.

In particular, the South West regional network of the *fokonolona* aims to contribute to the development of national policies and strategies of the multilateral Rio conventions (i.e. CBD, UNFCCC, UNCCD), and will continue to engage the national government on laws concerning the decentralized community governance of natural resources. With regards to the national constitution of Madagascar (which only mentions the role of communities in national sustainable development in one sentence), the regional network plans to suggest revisions and improvements to the government ‘protected areas code’, as well as the law regulating environmental impact assessments.

In anticipation of the stabilization of the national enabling environment, the voluntary submission of contributions to the Global ICCA Registry



managed by UNEP WCMC, as well as the sharing of experiences at the international level through membership of the ICCA Consortium, will be pursued. In view of the positive effects brought about by entrusting responsibility to rural associations, the COMPACT approach adopted by SGP Madagascar is expected to continue to consolidate the capacity and empowerment of rural CBOs in the target region. In addition, in view of the Aichi 2020 targets to increase the effectiveness of protected areas, the COMPACT landscape/ seascape approach also deserves to be replicated in protected areas in Madagascar, especially other World Heritage sites in danger (such as the “humid forests” cluster) where many threats to biodiversity only continue to increase.

*In 2007, thirteen villages along the coastline of the Ranobe bay grouped together to form a new community association to encourage the conservation of the fringing barrier reef of South West Madagascar – the third largest in the world in terms of its size.*

## Endnotes

1. Previously, the government only employed IUCN PA management categories I and II focused on “strict protection” of national parks and wilderness areas.
2. The revised code (to which SGP and COMPACT staff contributed in relation to community rights and responsibilities) was drafted in 2008 for ratification by the National Assembly. However, due to the ongoing political crisis in the country, the code has not yet been formally enacted.
3. South-West Dry Forest World Heritage Tentative List nomination file (2008).
4. In the region, a particular Malagasy traditional art form (funerary art) can be found at the heart of a bundle of ritual practices. The art form is composed of stone burial tombs and carved wooden posts called *aloalo*, familiar utensils of the deceased, as well as zebu skulls sacrificed at time of funerals which can last for weeks.
5. The Mikea forest includes several types of ecologically important habitats including several endemic species of flora: *Alluaudiospis marinierana*, *Didiera madagascariensis*, *Alluaudia comosa*, *Adansonia grandidieri*, *Adansonia Za* and *Adansonia rubrostipa*; as well as fauna: *Monias benschi*, *Uratelornis chimaera*, *Cheirogalius medius*, *Lepilemur ruficaudatus*, *Microcébus muninus*.
6. With a stated objective to “protect and preserve the original natural and cultural heritage while presenting a recreational and educational setting”.
7. The natural habitats are thorny forests on limestone plateau and mangroves. The leading species include threatened turtles (*Astrochelys radiata* and *Pyxis archnoides*), lemurs (*Lemur catta*, *Microcebus griseorufus* and *Microcebus murinus*), two very rare bird species and critically endangered (*Calicalicus rufocarpalis* and *Newtonia archboldi*), and many kinds of plants including *Commiphora Aloe descongii var augustini*, *Adansonia rubostipa*, *Delonix decaryi*, *Dicraeopetalum mahafaliense*, *Didiera madagascariensis*, *Operculicaria decaryi*.
8. The ‘Temporary Protection’ status was acquired in 2007 according to a Ministerial Decree. The process to obtain the final legal protection and documentation remains in progress.
9. The Tany Meva Foundation is an environmental Trust Fund established by a USAID-initiated debt-for-nature swap in support of community-based conservation in Madagascar. Funds for the target activities in the South West have been raised from numerous international donors including the MacArthur Foundation, Liz Claiborne Foundation and others.
10. Communication of Madagascar National Parks and WWF entitled ‘The transfer of management: a tool to develop the system of co-management of protected areas: case of the *Tsimanampesotse* national park’ delivered at the time of the ESSA symposium on the modeling of forest responses to climate change in 2010.
11. See the map of the identification of the important zones of conservation of the dry forests (WWF 2007).
12. For the GEF SGP 5th Operational Phase 5 (running from 2011-2014), the priority focus on the South West region will continue to support the implementation of village-level management plans for at least twenty additional community associations. The actions of the CBO federations within the content of the national network will be also prioritized. See GEF SGP Madagascar brochure, September 2011.

**Chapter 8 Working with indigenous peoples in the conservation and management of Puerto Princesa Subterranean River National Park, Philippines**



CHAPTER 8

# Working with indigenous peoples in the conservation and management of Puerto Princesa Subterranean River National Park, Philippines

BONIFACIO TOBIAS

## Introduction

The Puerto Princesa Subterranean River National Park (PPSRNP) is rich in biological and geological features, including an underground river that emerges directly into the sea. Inscribed on the World Heritage List in 1999, this site, which is over 20,000 hectares in area, encompasses a full “mountain-to-sea” ecosystem and boasts some of the most important forests in Asia. The protected area and its buffer zone are the ancestral lands of the *Batak* and *Tagbanwa* indigenous peoples who continue to inhabit the area and whose resource use practices rely on a diversity of ecosystems within the landscape and seascape.

Responding to threats to the area’s biodiversity on the one hand, and the needs of indigenous and

local communities on the other, COMPACT’s strategy in Palawan focuses on alternative livelihood and conservation projects, such as “low impact eco-tourism”, and biodiversity conservation through lowland farm agricultural intensification and crop diversification. Since it began working in Palawan, COMPACT has funded a wide range of projects in areas including reforestation and ecological restoration, conservation of major river systems, protection of critically endangered species, and monitoring of biodiversity. Working with the Protected Area Management Board (PAMB) and a national NGO, it has helped to develop maps and gather other baseline data to define the park boundary and establish management zones for effective protection and management of the PPSRNP.

*The PPSRNP extends along the western coast of Palawan island, within the St. Paul Mountain Range which features a spectacular limestone karst landscape, beneath which flows an underground river that has attracted visitors since the middle of the 19th century.*

*Overleaf: Inscribed on the World Heritage List in 1999, the Puerto Princesa Subterranean River National Park encompasses a full “mountain-to-sea” ecosystem and boasts some of the most important forests in Asia.*







*Working with Cabayugan, Tagabinet and Marufinas communities, COMPACT has helped these groups obtain Certificate of Ancestral Domain claims, ensuring that they now have rightful ownership to their traditional territory.*

An emphasis on the welfare and engagement of indigenous peoples has characterized the COMPACT programme in Palawan since its inception in 2003. A major focus has been on helping indigenous people secure tenurial claims to their ancestral lands. Working with *Cabayugan, Tagabinet* and *Marufinas* communities, COMPACT has helped these groups obtain Certificate of Ancestral Domain claims, ensuring that they now have rightful ownership to their traditional territory. It is also helping these communities to develop culturally appropriate livelihood initiatives, such as sustainable farming, agro-forestry, non-forest timber product-based handicrafts, and the establishment of an irrigation pipeline for paddy farms.

All of these activities are aimed at improving community welfare and income generation in the context of effective protected area management. This chapter will discuss COMPACT's experience working with indigenous communities living in and near the protected area, with particular focus on its role in helping these communities secure their traditional land rights through the tenurial instrument of ancestral domain title. It will also touch on some of the livelihoods projects COMPACT has supported to reduce pressure on

terrestrial and marine systems, while also helping restore and regenerate key ecosystems.

### **The Puerto Princesa Subterranean River National Park (PPSRNP)**

The PPSRNP World Heritage site covers an area of 22,202 hectares, extending along the western coast of Palawan island, within the St. Paul Mountain Range. The Saint Paul range features a spectacular limestone karst landscape, beneath which flows an underground river that has attracted visitors since the middle of the nineteenth century. The lowland forest of Puerto Princesa is part of the Palawan Moist Forest, one of the WWF Global 2000 Ecoregions.<sup>1</sup>

The park lies within the political boundary of Puerto Princesa City, the provincial capital of Palawan. It is one of 99 areas included in the National Integrated Protected Area System (NIPAS) of the Philippines. The World Heritage Site forms the core zone of the Palawan Island Biosphere Reserve, which was recognised under the UNESCO Man and the Biosphere Programme in 1990. As part of the national Ecologically Critical Area Network, the site is central to the Strategic Environmental Plan for Palawan.<sup>2</sup>

The park's highest policy-making body is the PAMB, which is composed of multi-sectoral representation, including indigenous peoples. Through the park management office, the park superintendent, appointed by the mayor of Puerto Princesa City, manages the day-to-day operations of the park. The City Environment and Natural Resources Office provides advice to the park management office on technical matters. Meanwhile, the Department of the Environment and Natural Resources Office shares responsibility for conserving the natural resources of the park and has its own designated park superintendent, providing oversight on behalf of the agency.

As discussed later in this chapter, during 2003 – 2004, COMPACT worked closely with the PAMB and other partners to ensure the involvement of local and indigenous communities in developing the General Management Plan for the national park and World Heritage site. As adopted by the PAMB, the park's General Management Plan includes the following goals in its mission:

- Ensure that the river remains naturally clean and unpolluted, and maintains its flow through appropriate management of the catchment inside and outside the park;
- Conserve the natural ecosystems inside and outside the underground part of the river and in its catchment with the involvement of

stakeholders particularly local communities, visitors, and the tourism industry;

- Protect the surrounding forest to maintain the biodiversity within the park; and
- Protect endangered and endemic species.

The mission is translated into seven programmes: (1) ecosystem management; (2) park protection and law enforcement; (3) research and monitoring; (4) public awareness and community relations; (5) tourism and visitor management; (6) regional integration; and (7) institutional development organization and administration. The programme further involves seven strategies, which articulate broad courses of actions needed to attain the vision and mission for management of PPSRNP. There are three “core” strategies that serve as foundational elements of the plan focusing on protection, mitigation and development, and which can be seen alongside the “supporting” strategies related to management, research, communication, and capability-building.

### COMPACT'S establishment in Palawan

As in the other countries described in this volume, COMPACT's engagement in Palawan began with a baseline assessment of the landscape/seascape in and around Puerto Princesa National Park. The

*COMPACT has supported local communities to use new technologies such as GPS for mapping of their ancestral domains.*





baseline assessment, which was conducted in 2003, identified a number of threats to the protected area stemming from increasing population and economic pressures. These included habitat destruction, alteration and deterioration; rapid population growth in certain areas; uncontrolled tourism development; and unregulated collection of wildlife (flora and fauna) in terrestrial, coastal and marine areas. In 2003, COMPACT's Local Consultative Body also examined issues of encroachment and poaching by districts (*barangays*) adjacent to the World Heritage site and subsequently proposed that these areas be included in alternative livelihoods activities to lessen the threat from illegal timber and non-forest timber product harvesting (Hay-Edie, Ganapin and Wells 2004).

In conducting the baseline assessment and developing its site strategy for the area, COMPACT relied on extensive consultation with the communities surrounding the World Heritage site. Early on the COMPACT Local Consultative Body, comprised of a wide array of stakeholders from the area, worked in close partnership with the PAMB to incorporate the findings from these consultations and the baseline assessment into the General Management Plan for the protected area. COMPACT brought local and indigenous communities and stakeholders together to agree on a common spatial vision for the area as a “*model World Heritage site through community-led biodiversity conservation and sustainable development*” with the aim of gradually increasing the percentage of the park “under

strict protection” as originally envisioned when the national park was established.<sup>3</sup>

The site strategy has also sought to provide sufficient time for many of the natural resources under high extractive pressure to rehabilitate, including those within the *Tagbanua* ancestral domains in the centre of the park. Other key activities to protect the ecological integrity of the World Heritage site includes *ex situ* conservation of selected species; rehabilitation of some cleared areas has also taken place including replanting of indigenous species.

In addition to helping facilitate community participation in formulating the GMP, COMPACT has worked with the park authorities on a process of locating and delineating the boundaries of the protected area. In the years since the PPSRNP was created, the extent of the protected area had grown dramatically: from 3,900 hectares when it was first designated as the the St. Paul Subterranean National Park in 1971, to 22,202 hectares in 1999 when, by Presidential Proclamation No. 212 the park was enlarged and renamed as Puerto Princesa Subterranean River National Park. Subsequently that year UNESCO inscribed the park on the list of natural World Heritage Sites. A COMPACT-supported project launched in 2008 delineated the actual boundaries of the PPSRNP according to Proclamation 212, helping to establish appropriate management zones for more effective protection, conservation and management of the protected area.

*Community visualization of reef species and survey of coral cover using transect lines, Cabibiag Reef, Barangay Marufinas.*

In parallel, responding to the needs of the indigenous communities, COMPACT has supported indigenous peoples living within the area to secure their traditional land rights by obtaining ancestral domain title to their lands. This process is discussed further below.

### Indigenous peoples living within and near the **Puerta Princesa Subterranean River National Park**

Two indigenous communities, the *Tagbanwa* and *Batak*, have inhabited the forested landscape within the park's vicinity long before settlers arrived from other provinces of the Philippines.<sup>4</sup> They are distinct ethno-linguistic groups, but they interact closely. The home range of both groups is central and northern Palawan, although the distribution of the *Tagbanwa* is wider than the *Batak*. The *Tagbanwa* have generally lighter skin and live in villages subdivided into hamlets. The *Batak* have darker skin and are organized as highly mobile bands that often stay in temporary campsites. The *Tagbanwa* occupies lower forested areas, while the *Batak* are found mainly in the upper slopes. In 2000, registered *Tagbanwa* in Palawan numbered 16,157 while only 364 *Batak* people were recorded (ILO 2007).

One of the main livelihood activities of these indigenous peoples is swidden agriculture, which is practiced primarily during the months of April and May. The traditional practice is to cultivate only a small area at any given time, so as not to damage the forest. Crops such as cassava and sweet potatoes are harvested during the months from September to January, while bananas and vegetable crops are planted and harvested throughout the year. In this way, the swidden field serves as food storage for the indigenous communities. Household needs are met by supplementing swidden farming with other activities, such as fishing, foraging, handicraft making and gathering of Non-Timber Forest Products (NTFPs), as well as occasional wage labor.

In addition to farming, indigenous peoples organizations (IPOs) within the PPSRNP gather wild fruits such as mango, rambutan, durian and others. Hunting of wild pigs provides food as well as a source of cash, when the meat is sold within the community. Because collection of wild fruits and hunting is a traditional practice, as stipulated in the Ancestral Domain Claims and Sustainable Development and Protection Plans, the park authority permits sustainable practice of these activities. Similarly, the indigenous peoples

*In the Cabayugan area, people fish in the river during the months when floods have subsided and the fish are believed to be clean. Fishing activity stops when the volume of water in the river is reduced and the trees shed their leaves. The community also work with tourists visiting the World Heritage site.*



**FIGURE 19. ECOSYSTEMS AND RESOURCE USE BY INDIGENOUS PEOPLES IN THE PPSRNP**

Ecosystem	Resource use in Cabayugan (Tagbanua)	Resource Use in Tagabinet (Tagbanua)	Batak in Kayasan
Primary forest	Collection of rattan, resin, honey, fruits and tubers and hunting	Collection of rattan, resin, honey, fruits and tubers and hunting	Collection of rattan, resin, honey, fruits and tubers and hunting
Secondary forest	Collection of rattan, resin, honey, fruits, tubers, bamboo; hunting; farming	Collection of rattan, resin, honey, fruits and tubers; hunting; farming	Collection of rattan, resin, honey, fruits and tubers; hunting; farming
Lowland farms	Farming and wage labor	Farming and wage labor	–
River	Gleaning and fishing	Gleaning and fishing	Gleaning and fishing
Mangrove	Gleaning, fishing and collecting honey	Gleaning, fishing and collecting honey	–
Marine waters	Fishing	Fishing	–
Lowland settlements	Trading and wage labor	Trading and wage labor	–

practice sustainable harvest NTFPs such as rattan, which is sold as a raw material and also woven into baskets, serving as a principal source of cash for people in both the *Kayasan* and *Cabayugan* Certificate of Ancestral Domain Claim (CADC) areas. The IPOs from both communities have secured permits from the relevant local and regional authorities to collect these NTFPs, based on the abundance of these materials in the forest and the fact that they are easily replenished.

Fishing is practiced in both CADC areas, with variations between the two areas. In the *Cabayugan* CADC area, people fish in the river during the months of December to March, when floods have subsided and the fish are believed to be clean. Fishing activity stops in April, when the volume of water in the river is reduced and the trees shed their leaves, which decompose in the river. The people believe that fish caught in the river when leaves are rotting are not clean, and so they shift their fishing to the sea during the months of April – August, tapering off during the rest of the year when winds are strong along the shoreline.

The resource use practices of the *Tagbanwa* and *Batak* rely on a variety of eco-systems within the landscape, each one serving as their lifeline and insurance against hunger (see Figure 18). These practices constitute carefully structured management systems designed to minimize risk, such that if one ecosystem does not deliver, the

other ecosystems can still be relied upon for food security. Acting as “generalists” rather than as specialists in their resource use practices is one of the survival strategies the *Tagbanwa* and *Batak* in their interactions not only with ecosystems but also with species (ILO 2007).

The *Tagbanwa* and *Batak* have attuned their skills not only to extract but also to sustain these various ecosystems, using natural resources without destroying their ability to regenerate. For example, they are able to harvest non-timber products and game from a forest without depleting these resources. They cultivate swidden fields while allowing the soil to restore its fertility. They fish and glean in rivers and coastal areas without altering these ecosystems. By maintaining these traditional practices, the use of multiple ecosystems and species guarantees survival not only for the people, but also for the plants and animals.

At the same time, the abundance of resources within the landscape of the protected area is not what it was in past times, due to resource exploitations by outside interests. In particular, large-scale logging and in-migration from other parts of the country have led to rapid changes in certain areas of the PPSRNP. However, the *Tagbanua* and *Batak* living within the protected area continue to follow their traditional patterns of resource use, adapting it slightly according to variations in the environment.



*The Indigenous People's Rights Act (1997) requires that free, prior and informed consent (FPIC) must be solicited from the indigenous peoples affected by development projects.*

### The Indigenous Peoples Rights Act

The Indigenous People's Rights Act, enacted by the government of the Philippines in 1997,<sup>5</sup> was hailed in international legal circles as landmark legislation because it recognizes, protects and promotes the rights of indigenous peoples over their ancestral domain, cultures, traditions and institutions.

The law also guarantees the full measure of their human rights and freedoms, cultural integrity and the delivery of State services responsive to the needs of the indigenous communities. Some of the law's important provisions include:

(i) the recognition of the indigenous communities' rights over their ancestral territories through the provision of Certificate of Ancestral Domain Titles (CADTs); (ii) allowing for the formulation of the Ancestral Domain Sustainable Development and Protection Plans (ADSDPPs) to contain indigenous knowledge, practices and structures in managing territories; and (iii) the requirement that free, prior and informed consent (FPIC) must be solicited from the indigenous communities affected by development projects.

Prior to the law's enactment, the *Batak* and *Tagbanua* had acquired two Certificates of Ancestral Domain Claims: the Cabayugan CADC with an area of 5,902 hectares awarded to 'Tining ng

Katutubo sa Cabayuga'; and the *Kayasan*, Tagabine CADC which covers an area of 7,530 hectares belonging to the 'Samahan ng mga Tribu sa Kayasan' (an Indigenous Peoples' Organization or IPO). From the point of view of the management of the PPSRNP these claims are significant, as they comprise about 61% of the park's expanded area. The Cabayugan CADC area stretches from lowland forests to the sea, including about 1 km of shoreline, with farms and residences interspersed with the forest. Forests from lower to higher elevations cover the area of *Kayasan*, a ward (*sitio*) of Barangay Tagabine. Farms, settlements and roads have encroached into the forest. The boundaries of the Ancestral Domain Claim and the park's core zone overlap in the higher elevation. Similarly, the *Kayasan* CADC, held by the Samahan ng mga Tribu sa Kayasan IPO overlap with the park's core zone.

### Securing traditional land rights to Ancestral Domains in support of natural resource management and community development

With the strong legislative basis provided by the Indigenous Peoples Rights Act, communities within the protected area have had a unique opportunity to formalize their traditional land rights, either by securing the ancestral domain title or by converting their ancestral domain claims into more durable land titles. However, it can be a challenging process and often the communities need assistance in navigating the legal system. Further, some of the ancestral domains have been acquired by non indigenous peoples through dubious transactions and incursions into tribal lands. Responding to this need, COMPACT has been working with partners to help indigenous peoples secure title to traditional lands within the PPSRNP. In particular, COMPACT has supported a series of projects involving the conversion of CADCs into CADTs.

Two of these projects focus on the *Cabayugan* and *Kayasan* wards. The lead organizations are the Tagbalay Foundation and the City Tribal Foundation, which in turn have been coordinating closely with the National Commission on Indigenous Peoples (NCIP), the agency with the mandate in securing the tenurial instrument. Each organization has partnered with one of the communities. The Tagbalay Foundation works

with *Tinig ng Katutubo sa Cabayugan* on the project to secure the Cabayugan CADT, while the City Tribal Foundation has partnered with the *Samahan ng mga Tribu sa Kayasan* to secure the Kayasan CADT. The IPOs in these communities are composed of traditional leaders, elders and Tribal Chieftains. In addition, the Barangay Councils play an important role in the process, supporting the local organizations with mobilizing participants for consultations, visual surveys and community censuses, among others, and providing some logistical and financial support.

The management of the PPRSNP has provided critical support to this initiative, hosting consultative meetings and planning workshops in the protected area, and providing other facilities as needed. Park rangers have been mobilized to assist the NCIP teams with their field visits, including the visual surveys and installation of control monuments indicating key boundaries of the ancestral domain areas. The park has hosted

workshops to formulate the Ancestral Domain Sustainable Development Protection Plan. Components of the ADSDPPs include: transect mapping, community profiling, setting community visions in ancestral domain management, reviewing the community history as well as reviewing and documenting indigenous laws on resource management and social relations. In addition, capacity-building activities have been offered for the Tribal Councils and other local organizations, on topics related to legislation, organizational management, and leadership skills.

To date, both projects have undertaken all the social preparations needed for conversion of the claims to CADTs (see steps listed in Figure 19). However, the claims await final evaluation and approval by the NCIP and final signature by the Secretary of the DENR, a process that could take a further two years. Securing this tenurial instrument will provide rightful ownership by the indigenous peoples on their ancestral domain. At

**FIGURE 20. STEPS IN THE COMPACT-SUPPORTED PROJECT TO ASSIST KAYASAN AND CABAYUGAN COMMUNITIES WITH CONVERSION OF ANCESTRAL DOMAIN CLAIMS TO TITLES**

Conversion of Ancestral Domain Claims to Ancestral Domain Titles in Kayasan and Cabayugan communities	Steps undertaken by the project as prescribed by the National Commission on Indigenous People (NCIP)
Introducing the policy to indigenous people	Filing of petition for delineation. The council of elders and community leaders accomplished the petition to include signatures of community members submitted to the NCIP.
Generating consensus in the community	Communities were involved in every consultation regarding required policy, among others. Identification of uninhabited areas within the domain for traditional purposes, worship and sacred areas and areas for gathering, hunting and fishing. The NCIP conducted information and consultation activities about the ancestral domain delineation process.
Meeting the documentation requirements of the state	Sketch maps prepared. Proofs gathered for Ancestral Domain Claims.
Notices disseminated for Ancestral Domain Claims	Gleaning and fishing
Validating the extent of the Ancestral Domain Claims	Visual inspection and validation of supporting documents. The councils of elders and community leaders, including the communities adjacent to the claim, were notified by the NCIP. They became involved in conducting the actual visual inspection.
Finalizing and monitoring of the Ancestral Domain Title	NCIP technical team conducted visual inspection in all landmarks and boundaries of ancestral domain.
Awarding of Ancestral Domain Title	The CADT process is ongoing with the NCIP main office.

*COMPACT has supported a number of projects aimed at reducing the pressures on forest resources by providing alternative livelihoods, and engaging people in restoration activities within secondary growth areas of the forest.*



the same time, it will set the stage for long-term conservation, since it is the basis for formulation of ADSPPs by these communities.

**Supporting alternative livelihoods in the landscape/seascape** – Forests within the protected area are threatened by illegal cutting of trees, unsustainable harvesting of non-timber forest products, hunting and wildlife trading. While intensive monitoring and surveillance is done within the PPSRNP, illegal activities are rampant in areas just outside of the boundaries of the protected area, particularly in the northeastern zone, and these activities intrude within the park. At the same time, poverty and worsening environmental degradation characterize the situation of the communities in these areas.

In response, COMPACT has supported a number of projects aimed at reducing the pressures on forest resources, by providing alternative livelihoods and also engaging people in restoration activities within secondary growth areas of the forest.

**Community-based restoration of watershed forests and sustainable livelihoods** – This project consists of providing the people of *Maruñinas* an alternative livelihood system that would significantly increase their income and at the same time wean them from unsustainable resource tapping. Specifically, the alternative livelihood system produced marketable indigenous crops within the

secondary growth forest areas such as taro, sweet potato and wild abaca. These crops can be grown for subsistence as well as income, as they command good prices in national and export markets.

**Diversified forest enhancement for sustainability and livelihoods** – Rice is a staple food for most of the communities in the area. However, only a fraction of the total households have rain-fed rice paddies. Because of the limited paddy fields, and underdeveloped irrigation systems, most households must purchase rice from upland areas. As a result, they rely on collection of NTFPs, such as rattan and tree resin, to generate cash to purchase this food staple. To minimize pressure on the forests due to resource extraction, an agro-forestry project within the Kayasan Ancestral Domain supports planting of endemic tree species to provide additional income for indigenous residents. In addition, the project supported installation of irrigation pipelines, enabling local residents to develop rice paddies in the lowland areas that can produce two crops per year, thus increasing the rice harvest for local households and reducing pressure on the forest. Further, the project supported the planting of rattan for sustainable harvest by indigenous residents, while at the same time improving the water-holding capacity of the watershed and ensuring continuous flow of water from the river, improving irrigation of the rice paddies.



Alongside the forested landscapes of the PPSRNP, a substantial portion of the protected area encompasses the coastal and marine environment. Within this seascape, COMPACT has supported a number of projects concerned with improved management of the Marine Protected Areas (MPAs), conservation of coastal ecosystems, and protection of endangered species. A few examples are presented in the box below.

During its second phase from 2005-2012, the programme mission for COMPACT has been to “demonstrate how community-based initiatives can significantly increase the effectiveness of biodiversity conservation in and around the PPSRNP.” Examples of projects in this second phase include:

- A project led by an IPO to restore degraded forest habitat and river banks within three Ancestral Domain claim areas, while enhancing local livelihoods, community development and cultural integrity. Selection of native and endemic tree species has been done to maximize the habitat values for wildlife species,<sup>6</sup> as well as the planting of rattan and fruit-bearing trees to provide food for wildlife, while also serving as natural firebreaks. The project includes involving community members in monitoring and protection of the forest in accordance with customary laws.
- Several projects aimed at protecting coastal areas and coral reefs from overfishing through activities such as introduction of more sustainable fishing methods, creation of no-take zones to allow fishing grounds to recover, and restoration of mangroves. In one initiative, community members have been trained, accredited and deputized to assist the local authorities in enforcing fisheries regulations as well as forestry regulations designed to protect the coastal mangroves.
- Assistance to a local farmers’ cooperative in adopting more sustainable rice cultivation methods using organic fertilizers and pesticides, high-yielding rice varieties, fish cultivation in rice paddies, livestock and crop diversification. These combined approaches are expected to increase yields by over 60 percent while reducing pollution of the river. Members of the cooperative also planted bamboo and fruit trees to stabilize the banks of a major tributary of the underground river.

## Discussion

COMPACT has played a critical role in helping the indigenous peoples of the area to secure their traditional land rights. While the process of securing the CADTs has been time-consuming, it has a critical impact on the lives of the indigenous

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## COMPACT PROJECTS IN THE SEASCAPE

### Capacity-building for community management and biodiversity monitoring of MPAs

This project has focused on networking existing MPA systems and building the capacity of coastal communities within the PPSRNP to participate actively in management of these protected areas. It has supported strengthening the of the MPA management institutions, and the introduction of community-led law enforcement targeting a wide range of marine species and their habitats. A resource assessment has been undertaken to guide management planning within the entire marine zone of

the PPSRNP. The project also supported the development of a business plan to assist communities in developing sustainable livelihoods and enterprises.

### Locally based conservation of sea turtle populations

Endangered sea turtle species within the PPSRNP face many threats, including poaching of turtles and their eggs, as well as predation of eggs by other animals, such as crabs and lizards. Responding to these threats, this project has helped to develop conservation and management measures for the PPSRNP, linked to sustainable livelihood projects that promote protection and conservation of sea turtles.

### Conservation and eco-tourism within the PPSRNP mangrove ecosystems

This initiative aims to strengthen conservation of the mangrove ecosystems within the PPSRNP and their associated biodiversity. Threats to these resources include indiscriminate gathering of wildlife, including capture of birds and lizards for food and for trade, and collection of orchids and other plants that are vulnerable to bio-piracy. The project aims to support local associations as stewards of the mangrove areas, and to help them develop income-generating activities in the communities to help meet livelihood needs.

peoples, who depend on these landscapes/seascapes for food, shelter, livelihoods and a wide array of cultural practices, including rituals. Further, the process has helped to forge partnerships among different stakeholders in the area, in particular between the park management authorities and the indigenous communities.

Since time immemorial, the indigenous peoples of this area have been the guardians of its environments. The ancestral bonds to care for the land and its features run from one generation to the next. Having secured the CADTs, the indigenous communities will have full authority and jurisdiction over their ancestral lands, enabling them to determine strategies to maintain the environmental integrity of the area, and continue customary practices within these territories.

Going forward, COMPACT should continue to support the indigenous communities in meeting livelihood, as well as conservation, needs. These activities would include restoration of denuded areas, improving the production of NTFPs, and ongoing support with improved agro-forestry and farming systems. An important area of need is capacity-building of IPOs, helping these groups make the transition from resource-based livelihood projects to enterprises. Such an effort would include support with developing business plans, identifying market potential, and introducing effective financial and project management systems. With the inclusion of the PPSRNP in the new “Seven Wonders of Nature,”<sup>7</sup> as part of the UNESCO Geopark listing, new opportunities will emerge for eco-tourism in the area. COMPACT should collaborate with the PAMB and tribal leaders to determine the kinds of low-impact tourism that might contribute to sustainable development in the area.

COMPACT’s work over the past decade has engaged local and indigenous communities in stewardship of the natural resources and ecosystems within the Puerto Princesa Subterranean River National Park and the surrounding landscape. It has helped them to recognize the threats to the natural resources on which they depend, and to see that opportunities exist for the communities themselves to guide and shape local management practices. COMPACT has fostered partnerships among stakeholders including local and national government bodies, local community groups

and indigenous peoples, enabling them to work together on formulating strategies for management of the protected area that enhance biodiversity while encouraging sustainable economic development. As a result, protected area managers from other parts of the country have visited the COMPACT programme in Palawan to learn from the experiences emerging from sustainable livelihood and resource management projects being implemented in the area.

## Endnotes

1. For the complete list of WWF’s Global 2000 Eco-regions see: [http://wwf.panda.org/about\\_our\\_earth/ecoregions/ecoregion\\_list/](http://wwf.panda.org/about_our_earth/ecoregions/ecoregion_list/)
2. 2006 Department of Environment and Natural Resources (DENR) “ Profile of the Puerto Princesa Subterranean River National Park” Quezon City, Philippines
3. 2008 Technical Working Group/Local Consultative Body (TWG/LCB) UNDP-GEF/UNF COMPACT-Philippines “Site and Vision Strategy” Puerto Princesa, Palawan, Philippines
4. If the theory of migration is used in determining their provenance, the Batak are Australoid-Sakai and the *Tagbanwa* are proto-Malays who came to the Philippines some 25,000 to 30,000 years ago from mainland Asia through land bridges. However, no irrefutable evidence has been found to support it. What is certain, based on physical evidence, is that there were people in Palawan between 24,000 and 22,000 BC. Anthropologists have found a skullcap and the portion of a jaw in the Tabon Caves in southern Palawan from early inhabitants, and artifacts indicate they had similarities with the resource uses of present-day Tagbanua (ILO 2007).
5. Republic Act #8371
6. There are some 30 mammal species recorded in the protected area that are in need of improved protection. These include: the bearded pig (*Sus barbatus*), bearcat (*Arctictis binturong*), Palawan stink badger (*Mydaus marchei*), the Palawan porcupine (*Hystrix pumilus*), and the long-tailed macaque (*Macaca fascicularis*). Bird species include the endangered Philippine Cockatoo and a variety of species of parrot, Mynah and pheasants.
7. For the current listing of the Seven Natural Wonders of Asia, see: <http://sevensnaturalwonders.org/category/asia/>

**Chapter 9** Community engagement in the Djoudj National Bird Sanctuary and World Heritage site within the governance of a Transboundary Biosphere Reserve



CHAPTER 9

# Community engagement in the Djoudj National Bird Sanctuary and World Heritage site within the governance of a Transboundary Biosphere Reserve

KHATARY MBAYE AND MAMADOU SAMBA SOW

## Introduction

The *Djoudj* National Bird Sanctuary and World Heritage site is home to a rich diversity of terrestrial, aquatic and marine species, including globally important nesting sites for migratory bird species. Situated within the *Djoudj/Djawling* Transboundary Biosphere Reserve (shared between Senegal and Mauritania), it is part of a mosaic of protected areas and buffer zones encompassing a complex system of wetlands and seasonally flooded humid areas extending to the coast. Adopting a landscape/delta-wide conceptual model, COMPACT has supported numerous community-based efforts to reduce pressure on the natural resources within the transboundary ecosystem.

On both sides of the international border, COMPACT has provided training and capacity-building for park managers, as well as engaging communities through the promotion of sustainable livelihoods and environmental education. A key outcome of the programme has been that local communities now play an important role in the governance and joint decision-making regarding the globally significant protected area. Small grant projects to local NGOs and community-based organisations (CBOs) have included: management of invasive species; training of eco-guards from local communities; restoration of habitats and natural water regimes; as well as sustainable livelihood projects based on the provision of

*The shared ecosystem between Mauritania and Senegal is connected by a network of artificial dykes and ecological corridors to allow for the migration of fauna from one side to the other.*

*Overleaf: The delta is known particularly for the presence of an estimated 1.5 million birds including a number of migratory birds (including large flocks of flamingos and pelicans) which spend the winter in Africa.*





The human modification of water drainage flows has disrupted wetland habitats leading to an increase in invasive plants such as *Typha australis*.

energy services, community-based ecotourism, handicrafts and other local products.

### Regional background

The close links between the lifestyles of local communities and natural resources has in recent decades led many policy-makers in Africa to revise outdated management strategies adopted for the conservation and sustainable use of ecosystem services. In many countries, such as Senegal and Mauritania, the creation of protected areas in landscapes shared by local communities has been the source of conflicts between government extension officers who hitherto relied on “top-down” forms of management. Increasingly, stakeholder populations have viewed such actions as dispossession of livelihoods and disruption of access to the sustaining and socio-cultural services provided by the protected areas.

Senegal and Mauritania, in particular, have witnessed an evolving institutional context through the implementation of new mechanisms which put local communities at the centre of government conservation priorities and concerns. In 1996, the introduction of national decentralization policies has allowed for the transfer of natural resource management to local communities.<sup>2</sup> In the specific case of the Senegal River, this impetus has also resulted in the creation in 2005 of the Transboundary Biosphere Reserve of the Senegal River Delta (RBTDS).

Dating from the colonial period when St. Louis, ancient capital of the *Afrique occidentale française* (French West Africa) based at the mouth of the Senegal River, a range of hydro-agricultural infrastructure projects have been developed with a view to improving agricultural production (in particular for the intensive planting of peanuts and other cash crops), as well as to moderating the effects of successive droughts in the region. Most recently in 1986, the *Djama* Dam was built to control and moderate the hydrological regime of the Senegal River, as well as to increase the availability of fresh water needed for irrigated agriculture. Prior to the introduction of the upstream dam, river flow depended entirely on rainfall and flooding cycles, and could not be regulated (Hamerlynck and Duvail 2003).

Under the natural hydrological regime, salt water intrusion previously extended as far as 200 kilometres inland from the mouth of the Senegal River, during the dry season; contrasted by high levels of flash flooding during the rainy season (negatively affecting the historic town of Saint-Louis, also listed under the World Heritage Convention for its cultural values). However, whilst beneficial in many respects, the *Djama* Dam also resulted in unanticipated ecological impacts to the *Djouj/Djawling* delta ecosystem, most notably through the proliferation of invasive aquatic weeds, which today constitute one of the main threats to the area’s wildlife habitats, and to the outstanding universal value of the World Heritage site.

### Natural and cultural values of the transboundary ecosystem

Following a lengthy political and institutional process involving actors ranging from the governments of both countries, representatives of civil society, and development partners, the RBTDS was created in 2005 with a total area of 641,768 hectares.<sup>3</sup> The RBTDS is characterized by a diversity of ecosystems along with a complex of wetland areas which together host significant birdlife. The transboundary ecosystem within the RBTDS encompasses the *Djoudj* National Bird Sanctuary (the core zone of the UNESCO World Heritage site, and a wetland of international significance under the Ramsar Convention), Réserve de *Ndiaël*, Réserve de *Gueumbeul*, and the *Langue de Barbarie* (on the Senegalese side); and the *Djawling* National Park and the *Chatt Boul* wildlife reserve (on the Mauritanian side). The shared ecosystem between the two countries is separated by the Senegal River and connected by a network of artificial dykes and ecological corridors to allow for the migration of fauna from one side to the other.

The delta is known particularly for the presence of an estimated 1.5 million birds including a number of migratory birds (including large flocks of flamingos and pelicans) which spend the winter in Africa. Over 300 species are identified each year. Terrestrial fauna is composed of reptiles (turtles, snakes,

lizards) and mammals (warthogs, jackal, monkeys). The range of fish includes both freshwater and estuarine species. Several species of amphibians and crustaceans are also observed. The protected areas of the St. Louis Marine Park and the *Langue de Barbarie* are also home to important nesting sites for marine turtles (e.g. leatherback turtle *Dermochelys coriacea*; the green turtle, *Chelonia mydas*, and loggerhead turtle, *Caretta caretta*).

Flora of the site includes stands of *Acacia nilotica*, *Prosopis*, and *Tamarix*, as well as several economically useful fibre species such as *Sporobolus robustus* used by women for the production of local fine hand-woven mats (which are prized across the region). The local craft industry is directly linked to the development of natural resources based on customary practices and traditional knowledge (TK) derived from artisanal processing, including leather goods such as bags, shoes and souvenirs.

The main current threats to biodiversity, following the commissioning of the *Djama* dam, have resulted from the permanent availability of freshwater (e.g. which is no longer marked by natural annual cycles of intermittent fresh and salt water flooding), leading to the proliferation of invasive aquatic plants, such as *Typha australis*, *Pistia stratiotes* and *Salvinia molesta*. The human management of water and modification of drainage flows into different channels has led to a dramatic reduction of and disruption to the habitats for

*The protected areas of the St. Louis Marine Park and the Langue de Barbarie are also home to important nesting sites for marine turtles.*



birds. Some areas of the *Djoudj* and *Diawling* have become clogged by dense invasive weeds, and cannot be accessed in order to achieve effective monitoring and viewing of wildlife.

The new hydrological facilities have also resulted in the reduction of considerable traditional areas of pasture, resulting in an increase in incursions by livestock into the *Djoudj* and *Diawling* core zones. Although access to these areas is prohibited, poverty and a lack of alternative sources of income have also led local populations to engage in illegal fishing, and the illegal collection and use of firewood. In addition, inadequate investment in the park infrastructure has led to technical inefficiency in managing the national park.

The city of Saint-Louis continues to provide important opportunities for tourism, with a vibrant hotel sector. However, despite the opportunities for camping and ecotourism the local communities have yet to take full advantage of this sector in order to diversify their economic base. The city of *Keur Macène*, which is the largest on the Mauritanian side, has more limited infrastructure, so local populations depend mainly on Saint-Louis as a regional market. Community identity in the villages on both sides of the river is composed of common ethnicity composed of Wolof, Moors and Fulani sharing matrimonial and commercial relations. This presents a significant advantage in promoting cross-border cooperation, integration of project development and governance for the RBTDS.

### Transboundary cooperation between Senegal and Mauritania

The Organization for the Development of the Senegal River (OMVS) is the main agency responsible for the administration and regulation of the hydrological system under the sub-regional cooperation framework between Mauritania and Senegal. Both the *Djoudj* National Park and the *Djoudj* Bird Sanctuary depend on the OMVS for the regulation of the river ecosystem under the legalised instrument of the Water Management Charter. In addition, the West African Regional Marine and Coastal Conservation Programme<sup>4</sup> has incorporated elements of both the *Djoudj* National Park, in Mauritania; and the *Langue de Barbarie* and marine protected area of St. Louis, in Senegal.



Beginning in 2000, SGP Senegal supported the Association Diapanté, a local CBO, that organized “teams of volunteers” to pull invasive plants (*Salvinia molesta*) out from the river and protect the waterways and channels for bird-watching.

With financing from the Global Environment Facility (GEF), UNEP and UNDP, a project on the conservation of biological diversity through the rehabilitation of arid and semi-arid areas along the border between the two countries occurred between 2001–2005, further helping to build cooperation between the two countries in policy management, integration and harmonization of interventions in the Senegal River basin. However, ongoing degradation of the water management infrastructure (i.e. dykes and waterways), necessary to comply with the watershed management plans in the RBTDS, continues to pose significant challenges to the full implementation of the established inter-governmental cooperation framework.

### Participation of local communities in the RBTDS

The involvement of local communities in managing the natural resources has evolved in West Africa in recent decades. In the case of the RBTDS, local communities have seized key opportunities to initiate cross-border cooperation activities, giving rise to “twinning” arrangements between the two parks. Local communities have played a crucial role in the process of creation of the RBTDS, as well as improving visibility of the area as a globally significant protected landscape (Goussard and Wit 2006).

A total of 22 small grants (19 in Senegal and 3 in Mauritania) worth over \$624,000 have addressed a range of threats and pressures identified through the conceptual model for the shared transboundary ecosystem



Between 2000-2004, the GEF Small Grants Programme (SGP), which is implemented by the UNDP in Senegal, began supporting a number of local initiatives in the RBTDS to address threats to the *Djoudj* Bird Sanctuary, in particular the fight against *Salvinia molesta*. Beginning in 2000, SGP Senegal supported the Association *Diapanté*, a local CBO that partnered with the Civil-Military Committee to Support Development to organize “teams of volunteers” to pull out from the river invasive plants (*Salvinia molesta*) and to protect the waterways and channels for bird-watching and other community-based ecotourism activities.

During the project, local village chiefs signed agreements with the project management committee to support the clean-up efforts. *Diapanté* has also established a small revolving fund to finance micro-projects led by local communities. Through the revolving fund, *Diapanté* supported the efforts of the women of *Médina Maka* (a village near the *Djoudj* National Bird Sanctuary involved in earlier efforts to eradicate invasive species), to establish livelihood activities, such as agroforestry and producing incense. The efforts yielded impressive results: over 27,000 square meters were cleaned in more than 90 sites along the river, representing the product of 6,262 “people-days” of work. *Diapanté* also received numerous additional requests for

micro-project lending from the revolving fund to sustain these conservation activities.

In 2007, with financial support from the GEF and the United Nations Foundation (UNF), the COMPACT programme was initiated in Senegal, scaling up SGP pilot efforts in the *Djoudj* Bird Sanctuary to support local community initiatives to conserve and promote biodiversity in the RBTDS. As part of a comprehensive landscape-level planning process, COMPACT staff developed a baseline analysis, conceptual model of key threats, and site strategy involving the full range of RBTDS stakeholders. The stated aim of COMPACT in the RBTDS was to establish a range of partnerships and practical actions through a network of civil society-led conservation efforts.

As of early 2012, a total of 22 COMPACT small grants together worth over \$470,000 have supported projects (19 in Senegal and 3 in Mauritania), addressing a range of key threats and pressures identified through the conceptual modelling approach. Working through a network of inter-linked local initiatives, COMPACT has achieved a number of accomplishments by providing carefully selected small grants, to efforts including: (i) the rehabilitation of wildlife habitat, (ii) reduced pressure on natural resources, (iii) ecological monitoring, and (iv) capacity-building.



As identified in the COMPACT conceptual model and site strategy, rehabilitation of wildlife habitat constitutes a priority to reduce threats to the World Heritage site. In response, the Local Consultative Body (LCB), composed of a cross-section of local stakeholders responsible for the strategic direction of COMPACT at the level of the protected area, approved a range of small grants averaging US\$25,000 (funded by the GEF and UNF) to address invasive species and biodiversity protection. The SGP grants have *inter alia* addressed the following key areas of intervention:

- 20 km of waterways, previously invaded by *Typha australis*, have been rehabilitated as bird habitat by the neighbouring village populations living in the vicinity of the Djoudj National Bird Sanctuary in Senegal;
- Building on the traditional knowledge of fishing communities along the coast in *Djarwling* National Park in Mauritania, the passage of fish at the Berbar watergate has been facilitated to allow for greater ecological connectivity allowing juvenile fish to move between spawning pools across the shared *Djoudj/Djarwling* ecosystem;
- A large pool in the Wildlife *Ndiael* special reserve was restored thanks to a “re-flooding” initiative conducted by the outlying villages. Numerous bird species which had not been seen in the area have now returned to the wetland;
- In Mauritania, a community-run nursery of 25,000 seedlings was organised to serve the rehabilitation of 6 hectares of *Sporobolus robustus* fields, to be used to provide a sustainable supply of plant fibre for the women’s weaving cooperatives marketing traditional floor-mats;
- In Senegal, an anti erosive dam was built by community members to protect an endangered nesting and reproduction sites for marine birds on an Islet situated in National Park of the *Langue de Barbarie*;
- Nesting sites for endangered marine turtles in the National Park of the *Langue de Barbarie* have been documented, mapped and protected by local community volunteers with a view to further developing community-based ecotourism activities.

In order to reduce pressure on natural resources within the *Djoudj* and *Djarwling* Parks and wider landscape of the RBTDS, alternative source of energy and biomass-based production have also been encouraged. In particular, forage species have been promoted along with improved agricultural, agroforestry, and sustainable fisheries practices. The SGP grants have *inter alia* addressed the following key areas of community livelihood and empowerment needs:

- 24 hectares of fodder crops have been planted and sustained to fill the deficit and reduce the frequent incursions of livestock into the *Djoudj* Bird Sanctuary;
- 9 deposits of butane gas have put in place with the assistance of the park authorities in the vicinity of the park, allowing over 400 households to access alternative energy sources to firewood;
- A framework of regular community consultations has been put in place to address cases of illegal fishing practices;



A community-run nursery was organised by COMPACT to serve the rehabilitation of 6 hectares of *Sporobolus robustus* fields, to be used to provide a sustainable supply of plant fibre for the women’s weaving cooperatives.

- In Mauritania, 150 women have been trained in sustainable use techniques and environmental plans, and 50 women in project management and environmental education;
- A revolving business development fund of \$56,000 has been established to support business enterprises to improve income-generating activities with the interest generated. Concessions to date have been made for 15 solar kits for the electrification of three villages in *Ghabra*, *Sbeikhat*, and *Bariel*.

With regard to ecological monitoring, COMPACT has involved the local populations through the training of “ecoguards”. Key elements of the park infrastructure in the *Djoudj* Bird Sanctuary have been upgraded with the help of local communities, including the command post, watchtowers, observation stations, and panels for walking tracks. There are 160 CBO members of the villages who

now have tracking devices and have had training to use them in the different parts of the RBTDS.

### Prospects for the future governance of the transboundary protected area

In conclusion, the political willingness of the two state parties to the World Heritage Convention to cooperate in the governance, integration, and management of the RBTDS across the Senegal River basin offers a leading example of transboundary conservation. The RBTDS cooperation framework also presents significant opportunities to build upon the shared environmental challenges on both banks of the river (i.e. invasive plants, hydrological connectivity, salinity, loss of biodiversity), and to develop a range of concrete on-the-ground implementation and zoning activities to ensure that the collaborative framework is actually put into practice (Borrini-Feyerabend and Hamerlynck 2011).

## COMMUNITY DELINEATION AND PROTECTION OF MARINE PROTECTED AREAS

The marine protected area (MPA) of St-Louis is one of the core zones within the transboundary Djoudj/Djawling Biosphere Reserve. Through the support of COMPACT Senegal, the coastal populations living near to the MPA have been supported to install permanent

marker buoys to delineate the boundaries of the reef and the MPA, as well as to design, construct and place “artificial reef” structures for the aggregation and protection of juvenile fish using local available technology adapted to the capacities of the local fishing boats.



Some of the most remarkable results in the RBTDS in recent years have been achieved through the range of partnerships developed under the COMPACT programme since 2007. In particular, teams of “eco-guards”, consisting of both male and female volunteers chosen among local communities and supported by SGP and COMPACT, continue to ensure the ecological monitoring of the protected area in collaboration with the protected area authorities. In particular, the partnership between the government authorities and the local communities has resulted in the participation of village organizations in the annual bird survey (conducted in January each year).

In the case of the Saint-Louis Marine Park and the Wildlife Reserve of *Ndiaël*, community members from outlying villages have also established ‘wildlife management bodies’ to work in collaboration with the government technical staff. Coupled with their involvement in the collection and provision of data, local populations who share cultural ties are also assisting the elaboration of management plans for different protected areas with the RBTDS through the development and understanding of “participatory conceptual models” which graphically capture the ecosystem connectivities in the river delta.

### Conclusion

Looking to the future, the Senegal river delta populations near Saint-Louis (also recognised as a UNESCO World Heritage City) and united by a shared history, may act as a “regional hub” for renewed socio-economic development, and continue to provide an exchange platform between the diverse ethnic communities of the area. As exemplified through the COMPACT approach, considerable scope exists to build on the transboundary cooperation framework by working directly with the related communities of Wolof, Fulani, and Moorish who share strong trade relations and cultural affinities.

Since its inception in 2007, COMPACT has contributed to the conservation of the RBTDS by directly supporting community initiatives carried by the local populations through participatory methodologies. The cumulative impact of the network of inter-linked small grants has promoted a greater sense of civic ownership for the World Heritage site by the local communities. Moreover, the results of the civil society-led



advocacy networks established by the COMPACT programme between 2007 and 2012 have been much in evidence, as demonstrated by the recent *Journées du Delta*. This event is organized each year in January to bring together stakeholders with a stake in the future of the Senegal river from both sides of the border in Senegal and Mauritania.

According to mission recommendations made by Borrini-Feyerabend and Hamerlynck (2011) on behalf of IUCN CEESP, a further multi-donor project entitled ‘Towards the shared-governance: act and learn for the RBTDS’ may be launched through a partnership between IUCN Senegal and IUCN Mauritania; SGP COMPACT; the Spanish NGO IPADE (which operates in both countries),<sup>5</sup> as

*The active engagement of women’s associations has been a cross-cutting priority for COMPACT within each of the participating World Heritage sites.*

*In July 2012, the UNDP Administrator, Ms. Helen Clark, visited a cluster of COMPACT projects near to Saint-Louis, and met with local women's associations projects supported by the programme.*



well as academic institutions in both countries (i.e. the University Gaston Berger in Saint-Louis, and the University of Nouakchott in Mauritania). The proposed project would establish a task force to prepare, support and facilitate the operation of the shared governance of the RBTDS.

During an official visit to Senegal in July 2012, the UNDP Administrator, Ms. Helen Clark, also visited the cluster of COMPACT projects near to Saint-Louis in order to meet with the women's associations projects supported by the programme, noting the particular role played by protected areas as "natural solutions" to increase resilience to climate change and reduce poverty as a contribution to the achievement of the UN Millennium Development Goals (MDGs). Through its portfolio of demonstration projects, it is hoped that COMPACT has contributed to the long term efforts by the many local stakeholders, protected area authorities, and the respective governments to put in place a robust and effective shared governance arrangement within the transboundary Biosphere Reserve.

## Endnotes

1. The authors listed acted as the COMPACT Local Coordinators in Senegal and Mauritania respectively over the course of the programme implementation between 2007 and 2012.
2. Each protected area is a department entrusted with technical rules of management and access to resources by well defined legal instruments (i.e. forest code, environmental code, hunting code, fishing code). In the case of RBTDS, governance bodies including the committees of national and transnational committees are set up but the local communities is still marginal in decision making.
3. The RBTDS includes 562,470 hectares of terrestrial and 79,298 of maritime areas. This covers an area of 186,908 hectares on the Mauritanian side and 454,860 on the Senegalese side.
4. <http://en.prcmarine.org/>
5. In 2012, the SGP programme in Mauritania has developed a Memorandum of Understanding to co-finance projects with IPADE for the Djawling National Park.

**Chapter 10** Building the capacity of local small and medium-sized enterprises through business development services





## Building the capacity of local small and medium-sized enterprises (SMEs) through business development services

LORENA BUSTOS, TERENCE HAY-EDIE, NEEL INAMDAR, ANA LOPEZ AND FABIANO SILVA<sup>1</sup>

### Introduction

The international acclaim provided by the inscription of a protected area on the WH list offers the potential to multiply the number of partnerships connecting an array of local, national and international stakeholders (Fayall and Rakic 2006). In general, World Heritage designation can facilitate marketing efforts to “sell the site” to domestic and international visitors. Other factors, such as the capacities of local communities to benefit from the added value of tourism, in particular through the sustainable use and sale of products and services, also play a critical role in the socio-economic development of the wider World Heritage landscape and region (Boyd and Timothy 2006, UNESCO 2012).

According to Hitchins et al (2004), in complex market systems, the international World Heritage designation may help “aggregate support” for the property from a set of agencies, as well as define an appropriate role for both state and non-state actors. In order to avoid donor dependency, a variety of interventions focusing on income generation, sustainable livelihoods, as well as building the capacity of SMEs, are required for the long term sustainable development of the region. Similarly, multi-phase approaches which combine work with various partners over longer periods may be needed in order to provide sufficient time to “develop presence”, instill credibility, and promote adaptive learning. A precise understanding of the local institutions, the dynamics in key business

*WH-LEEP complements COMPACT by providing a “blended approach” through the provision of business development grants, combined with affordable loan capital, to enterprises with growth potential in the adjoining World Heritage landscapes.*

*Overleaf: While there are growing markets, especially in North America and Europe, for high quality biodiversity-based products from small-scale rural enterprises, a lack of financing channels to invest in inputs limits the growth potential of these businesses.*



subsectors, and an understanding of the norms and habits of the target producers and consumers, all constitute critical success factors.

Supporting the growth of small rural enterprises can foster economic prosperity and job creation. However, “one-off external assistance” has rarely been sufficient to help these businesses achieve economic independence and sustainability (Devaney 2011). Official Development Assistance (ODA) should ultimately work towards improving the enabling environment for the poor. In this context, agricultural cooperatives and small private enterprises constitute the base of many global value chains connected with the livelihoods of WH landscapes.<sup>2</sup>

While there are growing markets, especially in North America and Europe, for the products from small-scale rural enterprises, a lack of financing channels to invest in inputs (i.e. small-scale processing units, accounting skills etc) limits the growth potential of these businesses. Due to a lack of public investment, as well as constraints faced by local commercial banks, the financing needs of cooperatives and small private enterprises in many developing countries remain largely unmet.<sup>3</sup>

### World Heritage LEEP

Amongst the hundreds of local-level partnerships established by COMPACT in the eight participating World Heritage sites, many have included engagement with private sector groups including small and medium-sized enterprises (SMEs), utility companies, hoteliers, tourism associations, as well as foundations. In 2007, building on joint commitments made by Conservation International (CI) and the United Nations Foundation (UNF) at the 30th Anniversary of the WH Convention in 2002, the World Heritage Local Ecological Entrepreneurship Program (WH-LEEP) was created to leverage CI’s experience in supporting SME development via its *Verde Ventures* programme.<sup>4</sup>

LEEP may be considered to be a “natural evolution” of the COMPACT landscape approach since the programme was designed to provide market-based incentives to community enterprise development in and around the participating World Heritage sites. The *Verde Ventures* programme complements COMPACT by providing a “blended approach” through the provision of business development services (BDS) grants, combined with affordable



loan capital, to enterprises with growth potential in the adjoining World Heritage landscapes.

Based on research by *Verde Ventures* into potential approaches to blend grants and loans, the initiative found that the majority programmes related to BDS assistance and loan capital are implemented separately in the impact investment world. The review found that many organizations are specialized into either one of the activities, whilst very few have developed expertise in both areas. The following table, extracted from a study developed by Dalberg for *Verde Ventures* in 2012, provides a sample comparison of the range of technical assistance providers and organizations operating in the area of development assistance, BDS provision, and loans to SMEs in specific countries.

Even though documented evidence of the “blended approach” remains slim, certain organizations are combining BDS and capital provision to a limited extent. ‘Root Capital’ for example provides technical assistance to existing clients by strengthening the financial and accounting skills of the borrowers. A key difference with LEEP is however that Root Capital’s technical assistance recipients are already borrowers with a demonstrated baseline of financial maturity. According to its objectives, LEEP set out to work with community organizations trying to access markets which lack an established “track record” of financial experience.

Other European funds such as ‘Oikocredit’ provide advice and practical training which enables their partners and clients to build up their capacity so

*World Heritage designation can facilitate marketing efforts to “sell the site” to domestic and international visitors*

that they can service their credit more efficiently and effectively. Another major challenge identified for LEEP was that most existing BDS providers have been structured around a six month support time-frame (on average), which in turn represents a “small window” into to which an enterprise is able to successfully generate adequate business skills, access markets and become financially viable for a loan.

Established as a three-way partnership between UNF, GEF SGP, and *Verde Ventures*, the rationale behind LEEP was that most nascent SMEs struggle for sustainability due to an inability to access affordable credit with favorable repayment conditions. LEEP’s main objective was thus to create a loan financing facility to provide enterprise development support to community-based businesses and biodiversity-friendly loans in six target World Heritage sites. The programme aimed to ensure that quality BDS was delivered to select SMEs, and to identify appropriate local or regional intermediary financial institutions (IFIs) to engage in the long-term provision of affordable capital to local enterprises.

Between 2009-2013, the programme has been piloted in six countries: Belize, Dominica, Kenya, Madagascar, Mexico, and Tanzania. Based on an assessment of the local market opportunities in each site, *Verde Ventures* developed a series of approximately twenty-seven BDS grants (averaging \$10,000) to build the capacity of local SMEs. LEEP’s initial five-year agreement was for an investment of \$1 million by UNF, to

be matched with \$1M from CI, and leveraged with further GEF capacity development grants provided by COMPACT in the target landscapes. An important element of the design included a partial risk guarantee of [\$450,000] provided by UNF in the form of a legal agreement with CI to underwrite 80% of the risk of the loans provided by *Verde Ventures* to local SMEs.

Instilling the “fiscal discipline” that loans require is often critical to an enterprise’s ability to grow beyond being a project to being a thriving business with long-term growth potential. Building assets and a credit record is also essential to obtain other sources of investment financing from local commercial banks as the enterprise develops. Sievers and Vandenberg (2007) argue that within the overall set of conditionalities imposed by donor agencies, SMEs should be able to “freely choose” from a package of services on offer. In the case of LEEP, a fully subsidized BDS package was considered a prerequisite for the beneficiary enterprise to apply for a loan. Once the BDS was implemented, the beneficiary was however free to submit an application for, and/or accept, the subsequent loan offer.<sup>5</sup>

In most of the participating World Heritage sites, *Verde Ventures* opted to partner with local BDS providers to deliver technical assistance and tailor the service provision specifically to the needs of the SMEs.<sup>6</sup> In each case, a rigorous screening process was implemented to select organizations that were: (i) fully aligned with the mission of the LEEP programme (i.e. any community-based, income-generating enterprise with direct benefits to people and biodiversity conservation was encouraged to apply);<sup>7</sup> and (ii) reflect a sufficiently robust business opportunity for the *Verde Ventures* investment committee (including the CEOs of major Fortune 500 companies) to be considered for a loan. After applications were submitted, the pool of prospective recipients was narrowed down by using a set of ‘pre-selection criteria’. Some examples of target value chains included:

- *Agroforestry enterprises*: shade-grown and sustainable agriculture that buffers biologically important protected areas;
- *Ecotourism enterprises*: ecotourism products and services that protect biodiversity and provide conservation-oriented employment and income for communities living near protected areas;

*Instilling the “fiscal discipline” that loans require is often critical to an enterprise’s ability to grow beyond being a project to being a thriving business with long-term growth potential.*







- *Wild-harvest product businesses:* development and promotion of oils, nuts, fruit, plants, fibers and other natural materials sustainably harvested near to the protected areas.

### Markets as driving forces for conservation and livelihoods

The development of sustainable livelihoods depends upon the demand for goods and services. Poor people themselves usually also identify problems with market relations as critical to their livelihoods. If properly harnessed, markets can be a powerful growth mechanism promoting efficient exchange, coordination, and allocation of resources, goods and services. Historically, poverty reduction processes have however tended to depend on the assumption of equitable private sector growth, as well as the “goodwill” and participation of a variety of powerful stakeholders to share benefits.

Economic structures are complex however, and often involve market failures. In many instances, other ‘non-competitive’ or ‘non-market’ arrangements might need to arise in order to make coordination and exchange feasible (Dorward et al 2007). Similarly, clear “limits to development interventions” remain when focusing on income generation, regardless of the level of public subsidies involved. In particular, some systemic economic weakness facing rural communities elements include:

- Geographic remoteness;
- Scarcity of natural resources and/or ineffective natural resource management;
- Economic, social and political isolation;

- Inadequate physical infrastructure and lack of access to basic services (i.e. water, health, education, electricity and telecommunications);
- Weak social capital and absence of effective rule of law;
- Prevalence of conflict and insecurity;
- Dysfunctional land and property ownership structures.

Whilst poor and marginalized communities face numerous challenges for economic integration and growth, “negative scenarios” must not discourage the implementation of pro-poor development interventions. In this light, LEEP was designed in order to test a strategy that allows small local businesses to reach a scale that fulfills the needs of the community, and be environmentally sustainable. To meet its objectives, the programme carried out a series of market-oriented strategies utilizing a ‘Value Chain Framework’ (VCF)<sup>8</sup> approach to:

- Define a level of production/use of specific natural resources adequate to reach markets while assuring the conservation of the World Heritage site;
- Assess opportunities for enterprises to access capital at different scales, including other existing financing initiatives;
- Evaluate schemes for vertical and horizontal association in the World Heritage landscapes to facilitate access to markets and credits;
- Determine the structure of different alliances needed to be put in place between local, national, and international entities.

*The WH-LEEP programme carried out a series of market-oriented strategies utilizing a Value Chain Framework to analyze opportunities for SMEs around the World Heritage sites.*

### Business development services for SMEs

The provision of business development services (BDS) represents a suite of services aimed at small-scale businesses to allow them to compete effectively. The approach must be based on a “systemic view” of the business environment, identifying the underlying causes of underdevelopment, and should be focused on the local institutional context avoiding external ‘top-down’ solutions. The role of numerous stakeholders, including the state, must be assessed. Services ought to be market-appropriate, and aligned with local norms and institutions in order to assure local adherence and effectiveness. Finally, when planning the implementation of BDS, it is important to consider sustainability factors, such as the availability of other market players to take on the provision of services upon completion of the development intervention. The “ultimate goal” should be to enhance the efficiency of (rather than distorting) the target markets.

LEEP’s BDS strategy included a range of services requested by entrepreneurs to ensure the long-term financial viability of their business. These services included *inter alia*: (i) accounting/ finance training and software; (ii) marketing support; (iii) management training; (iv) guide training; (v) different forms of certification. Each BDS package was thus tailored to meet the needs of the specific enterprise, and to build on existing partnerships developed by COMPACT in the target World Heritage site. For every SME, an enterprise “needs-assessment” was conducted by experienced *Verde Ventures* staff in order to develop a BDS plan to be implemented by a pool of partners at the level of the selected World Heritage site.

Each element of the BDS package sought to complement the prior technical assistance provided by the COMPACT local coordinators to commu-

nity-based entrepreneurs, assuring an integrated approach. The assistance to targeted SMEs usually included: (i) basic capacity building for outputs-based project design; (ii) participatory planning; (iii) ecological monitoring; (iv) inclusive cultural and visioning processes; (v) biodiversity-based product development; (vi) regional supply chain formation; and (vii) cooperative/producer network extension. Once developed, the delivery of the BDS package was provided either by private sector partners, local non-profits, consultants, or could be purchased by the enterprises themselves. The exact amount of funding per enterprise was determined by the development support plan, but typically did not exceed 40% of the loan capital provided (ensuring sufficient funding for a broader portfolio of LEEP projects at the World Heritage site level).

### Leveraging COMPACT experience through loans

The affordable loan financing component of LEEP utilized the *Verde Ventures* model, partially adapted for the COMPACT enterprise portfolio. Initially, the average loan size for investments through LEEP was planned to be approximately \$25,000, within an investment range of \$20,000 to \$50,000. Projects that performed well were expected to have a potential for additional financing up to \$150,000, following the same approval process. The pricing and terms of the loans invested were adjusted for risk and tailored for the specific cash flow needs of the selected enterprises. The estimated average repayment term was expected to be 3-5 years, with an interest rate that enabled enterprise growth, but did not significantly undercut local financial markets. Results of the programme’s 5-year period are summarized in the table below.

As demonstrated in the table, there were a considerably higher number of applicants to the programme compared to the numbers of BDS

FIGURE 21. WH-LEEP PROJECT OVERVIEW / PHASE I & II

Table of Applicants	BDS Grants	Loans
Number of organizations applying	58	31
Total Value requested (US\$)	\$532,620.67	\$1,670,893.00
Number of organizations approved	27	5
Total value approved	\$255,985.72	\$655,000.00

grants and loans approved. Out of 58 applicants, 27 SME's were approved for BDS. This represents an approval rate of roughly 48%. Out of 31 SME applicants for loans, 5 were approved – which account to roughly 16% of the total pull of loan applicants. The differences in these numbers can be attributed to a number of factors:

- *High demand* – the large number of applications to LEEP was indicative of the growing demand for SME finance in the target World Heritage site. In keeping with a range of studies, all cite “access to finance” as a critical constraint to SME growth.
- *Lack of SME readiness for debt* – despite the high demand, many of the SMEs in the target World Heritage site were not ready for investment in the form of debt due to:
  - *Lack of equity* – most, if not all, would have benefited from a strong equity investment in advance of, or in tandem with, the proposed debt. In many cases, the lack of equity, and therefore the weak balance sheet, was a key concern when credit applications were reviewed.
  - *Lack of capacity* – many of the SMEs had weak organizational structures and management, with little capacity to implement market-focused business plans, nor sometimes to understand the implication of taking on debt.
  - *Lack of strong cash flows* – in the absence of assets to lend against, the presence of adequate and sustainable cash flows became critical in order to assess the ability of the SME to repay borrowed capital.

In many cases, the SMEs reviewed suffered from all three of the identified challenges. While the BDS resources provided addressed the lack of

capacity, the integration of the lessons learned into core business practices takes time. In some cases, the technical assistance was never fully absorbed into the SME. In others, the issues of lack of equity and cash flows, whilst identified through the BDS, could not be fully resolved, and may only be addressed in the medium to long term through the arrival new investors, or improved market access.

### Case Study I: WH-LEEP experience in Mexico

As described in an earlier chapter, COMPACT Mexico works in the Sian Ka'an Biosphere Reserve and Ecological Corridor of Calakmul covering an area of 4 million hectares of forests and coastal zones. In the case of Mexico, *Verde Ventures* received seven requests for support, and approved five BDS grants. The programme also received four loan requests, and approved one. A summary of the programme's activities in Sian Ka'an is presented in the table below.

One of the LEEP's beneficiaries in Mexico was the *Integradora de Pescadores de Quintana Roo* (or *Integradora* for short), a private company that gathers together six fishing cooperatives based in Punta Allen in the southern part of the Riviera Maya on the Yucatan Peninsula. About 300 fishing-related families benefit from the enterprise. A trademark named *'Chakay'* was created in partnership with a local NGO named *'Razonatura'* to brand their sustainably fished lobsters (see chapter 3). Through earlier support provided by COMPACT, the enterprise developed an extensive monitoring and management programme to ensure sustainable fishing techniques, and began supplying lobster to the large-scale tourism market found in Cancun. With assistance from the state, the *Integradora* also initiated the creation of a retail facility in the city of Cancun to help expand their business.

**FIGURE 22. REQUESTS SUBMITTED FOR TECHNICAL ASSISTANCE IN COMPARISON WITH LOANS APPROVED (MEXICO)**

Mexico - Sian Ka'an WHS	BDS Grants	Loans
Number of organizations applying	10	4
Total value requested (US\$)	\$ 75,166.67	\$ 101,688.00
Number of organizations approved	8	1
Total value approved	\$ 48,095.39	\$ 30,000.00



A WH-LEEP grant was approved which enabled Flor de Tajonal in Mexico to develop a business plan that included a strategic and marketing plan focused on the Fairtrade and Organic markets.

In order to build the capacity of the *Integradora*, and to increase lobster supply to meet demand, LEEP approved two “sequential” BDS grants. The first BDS support aimed at developing a business plan for the enterprise, including a strategic analysis and a commercialization plan. The plan included operational, organizational and financial analysis in order to evaluate the *Integradora*’s potential for additional funding. An operations and brand manual were also developed aimed at the standardization of their day-to-day management practices. The second BDS grant was designed to improve the *Integradora*’s accounting and financial management capabilities, boosting the organization’s capacity to manage a future loan. In addition, *Verde Ventures* continued jointly seeking market opportunities resulting in pilot direct sales of lobsters to the Marriott Hotel in Cancun.

Following the directives laid out by the business plan, the *Integradora* requested a loan of US\$30,000 to invest in working capital for a two month period to allow payment of lobsters for the cooperatives against product delivery, as well as to cover operational costs such as preparation, packaging and distribution of lobsters for hotels and restaurants. The loan was also intended to offer a 10 to 40 day credit to buyers in order to increase the *Integradora*’s competitiveness. However, even though the loan was approved by *Verde Ventures*, various factors including internal management conflicts, as well as potential cultural misunderstanding on the definition of “social collateral” guarantees requested by the *Verde Ventures* investment committee, meant that the loan was never ultimately signed.

A second LEEP beneficiary organization in Mexico, *Flor de Tajonal*, is a honey cooperative with approximately 70 members spread out across ten different communities adjoining the Sian Ka’an World Heritage site and wider region. The group manages a total of 1,629 hives where men focus on honey harvesting, whilst women develop a number of value-added products such as candles, soaps, shampoos and lotions. Initially, a BDS grant was approved by *Verde Ventures* which enabled *Flor de Tajonal* to develop a business plan that included a strategic and marketing plan focused on the Fairtrade and Organic markets. The BDS also included administrative support, with a special focus on computer training and financial projections, for the SME.

In 2012, following plans developed during the BDS phase, *Flor de Tajonal* work on a loan request to LEEP. The \$47,000 loan aimed at providing working capital to finance the honey harvest season, and the distribution of tools for agriculture and honey production. The high investment in working capital was meant to increase the cooperative's honey harvesting and processing capacity of organic certified honey in order to export a whole container load to the European market, consequently reducing costs and increasing their profit margins. Unfortunately, as is common in many community-based enterprises, *Flor de Tajonal* had limited staff capacity, heavily concentrated in field activities during the harvest seasons, hampering the group's communication capabilities. This lack of human resources was a contributing factor which ultimately made it impracticable for the disbursement and execution of a *Verde Ventures* loan.<sup>9</sup>

Finally, the Punta Allen '*Allianza Turistica*' which gathers together three local tourism cooperatives in Punta Allen, and involves 60 families, represents another LEEP beneficiary in Mexico. At the centre of its business plan, the *Allianza Turistica* provides excursions to tourist "ground handlers". The handlers bring visitors to the region, and the cooperative provides boats for snorkeling, marine and coastal visits. The community also rent their restaurant facilities by the beach for lunch and drinks. The three cooperatives partnered with each other forming the *Allianza Turistica* as a result of the BDS support provided by *Verde Ventures* and COMPACT capacity building support.

The BDS offered to the *Allianza Turistica* aimed at strengthening managerial skills by providing computer training to their members, as well as a wide set of planning and operational tools such as business and marketing plans, website development, English language skills, and financial training. Some of the services were "customized" specifically for the SME, whilst others services were developed to apply to the three cooperatives as a group. All strategic materials were developed considering the alliance of the cooperatives, while other marketing and communication materials were developed separately. Despite the investment of BDS, the *Allianza Turistica* did not ultimately request a loan from *Verde Ventures* after the conclusion of the technical assistance.



The Punta Allen '*Allianza Turistica*' which gathers together three local tourism cooperatives, and involves 60 families, also received WH-LEEP business development support in Mexico.

In Mexico, LEEP has had to build on the work of several local community groups to build and strengthen larger, more complex, and sustainable businesses. A series of interventions supported organizations, either with clear growth potential, or with significant positive environmental and socio-economic impacts. LEEP's experience in Mexico would suggest that a number of emerging SMEs continue to face ongoing human and financial constraints in order to meet stringent corporate requirements to reach sustainable profit margins.

Some of Desert Edge's product lines include honey, beeswax and apitherapy products.



### Case Study II – WH-LEEP experience in Kenya

As has been presented in chapter 4 of this volume, COMPACT has brought innovative tools and techniques in order to foster the development of livelihoods in the Mount Kenya World Heritage site. Working in the wider landscape surrounding the World Heritage site, including the Laikipia ranges, LEEP worked closely with several innovative local enterprises to promote sustainable businesses in the region. Of the fifteen BDS application request received, six were approved, as well as two loans (out of the eight requests submitted). In order to improve the quality of the investment information on the SMEs, as well as to streamline COMPACT's application process, LEEP partnered with 'Conservation Capital', a Kenya based SME specialized in innovative investment finance and strategy solutions in biodiversity conservation. A summary of the relevant activities in Mount Kenya World Heritage site is presented in the table below.

*Desert Edge*, one of LEEP's first beneficiaries in Kenya, was a not-for-profit limited liability company formed in 2009 aimed at consolidating the supply of bio-products for sale to both domestic and international markets. The company also conducts R&D and product development support in order to increase its margins. Some of Desert Edge's product lines include: (i) medicinal and ethno-botanicals; (ii) honey; (iii) beeswax and apitherapy products; and (iv) bio-fuels from invasive species and certification.

*Desert Edge* provides an alternative income stream to communities in northern Kenya which remain semi-nomadic, and pastoralists whose income focus on livestock. The company also offers the potential to mitigate environmental damage of charcoal manufacture and overgrazing. Through BDS support, LEEP assisted *Desert Edge* on financial management, including leadership mentoring for a senior finance professional. The BDS also aimed at developing financial plans, reporting templates, key performance indicators (KPIs), organizational

**FIGURE 23. REQUESTS SUBMITTED FOR TECHNICAL ASSISTANCE IN COMPARISON WITH LOANS APPROVED (KENYA)**

Kenya – Mount Kenya WHS	BDS Grants	Loans
Number of organizations applying	15	8
Total value requested (US\$)	\$ 131,454.00	\$ 487,578.00
Number of organizations approved	6	2
Total value approved	\$ 93,469.00	\$ 150,000.00

charts, skills-gap identification, and a series of working sessions to define the overall strategy, goals, and action plan. The support also included regular meetings with top management to discuss corporate performance and to monitor and prepare formal annual financial audits.

LEEP continued its support to *Desert Edge* with a 5-year term loan of US\$150,000 to finance its working capital needs, its trade agreements, and to acquire field equipments. The loan has allowed the company to build an inventory as well as pay harvesters immediately upon product delivery, rather than subjecting them to corporate cash flow cycles. As a result, the loan increased *Desert Edge's* operational capacity allowing them to meet larger orders.

Another organization that received LEEP support was '*Ten Senses Africa*', an export-only Fair Trade and Organic certified macadamia nuts producer in the Mt. Kenya region. The company provides training for farmers to crops which comply with international organic and fair trade standards. It also works on capacity building for farmers' associations guaranteeing minimum prices, volumes, and fair trade premiums that are reverted to collective projects that benefit the entire community. *Ten Senses Africa* also prospects and secures export markets assuring a stable income stream to over a thousand farmers. The company has engaged partner communities to plant 10,500 macadamia trees, which will cover over 300 hectares of land and will sustain farmers during the trees' 50-year lifespan. Finally, *Ten Senses Africa* also works to enhance their conservation and production systems through soil conservation and water use optimization and by producing premium shade coffee, which reduces farmer's dependence on coffee price fluctuations.

Through BDS support, LEEP provided technical assistance and training for macadamia framers, as well as management training to farmer's associations to enhance their governance and management practices preparing these organizations for Fair Trade and other ISEAL certification audits. These trainings initially focused on *Ten Senses Africa's* food safety controls and monitoring practices, whilst later moving to grower's production standards, as well as logistical and commercial routines.



*Warem has developed a drip irrigation technology for use in individual households to supply water for gardens and small-scale farming that results in water savings of up to 90%.*

Considering the significant social and environmental impact opportunities present by this company, particularly in promoting alternative incomes streams, LEEP approved a 2-year term loan of US\$75,000 to serve as working capital, and to cover 85% of acquisition costs of new production equipment. The new equipment tripled factory capacity from 300kg/day to 1,000kg/day, reducing the time of filling a container from 60 to 18 days. This result is expected to enable *Ten Senses Africa* to fulfill existing outstanding orders as well as improve its highly volume dependent business model.

Another beneficiary of LEEP in Kenya has been 'Water Resource Management Consultants' (*Warem* for short), which represents a small private firm established in 1997 aimed at promoting water conservation through the optimization of water usage in agricultural activities. *Warem* has developed a drip irrigation technology for use in individual households, to supply water for gardens and small-scale farming that results in water savings of up to 90%. Agriculture activities in the Mt. Kenya region have relied traditionally on irrigation water from rivers and streams, but with population and water demand increasing rapidly, many sources in the region remain dry for

Top Notch Ltd is a recycling company dedicated to collecting plastic waste to process it into plastic granules, and sell the materials to companies for the production of useful items (wash basins, buckets, crates, and fencing posts).



The WH-LEEP support to Top Notch Ltd has been aimed at developing a business plan and feasibility study for a new line of plastic products, including a market survey.



much of the year, resulting in loss of livestock and biodiversity, crop failure, as well as an escalation in conflicts between upstream and downstream users.

Through LEEP, *Verde Ventures* provided a BDS package to *Warem* that included: (i) the development of a business plan (including all of its subcomponents); (ii) a financial plan and analysis; (iii) a marketing plan including forecasts and communication strategies; (iv) sales trainings for local sale partner; (v) an environmental impact assessment; and (vi) the establishment of a patent for its irrigation system technology. A loan of US\$40,000 was requested by *Warem* and approved by the LEEP steering committee. This was however later declined by the organization who stated that they did not want to go through the full due diligence process required by *Verde Ventures*.

‘Top Notch Environmental Solutions Limited’ (Top Notch Ltd for short), is a recycling company dedicated to collecting plastic waste to process it into plastic granules and sell the materials to companies for the production of useful items (wash basins, buckets, crates, and fencing posts), was also incorporated to LEEP’s portfolio in Kenya. The company works directly with youth and women groups, as well as in horticulture and flower farms around Mt Kenya, increasing awareness regarding the dangers of burning plastic in open fires. The population has been encouraged to separate plastic from organic (and other) waste, for ease of collection and handling. Community groups are incentivized to collect all types of plastic waste, sort it, and sell to the company to generate income. As part of the SME’s environmental conservation plan, a tree nursery has been maintained, mainly for endogenous species, which are distributed free of charge to communities.

The BDS support to *Top Notch Ltd* has been aimed at developing a full business plan, a feasibility study for a new line of plastic fabrication utility including a market survey, an environmental impact assessment, a machinery needs assessment, advice on necessary management structure changes to accommodate increased production capacity, identification of computerized data management systems, a complete business and financial development plan, and a marketing plan. A loan request was submitted to LEEP in 2012 to acquire new equipment, improve its waste cleaning system, and develop plastic products moulds for their new production line.



The 'Nyala Dairy Multipurpose Cooperative Society Ltd' (*Nyala Dairy*) which provides a broad range of services that developed around the collection, bulking, and chilling of milk for onward sale to milk processors, is another beneficiary. The cooperative helps farmers obtain improved technology, such as green energy products, and water purification treatment systems. Among the services provided by the Cooperative include financial services, provision of farm inputs, animal health and artificial insemination services, as well as farmer trainings.

Initially, a set of BDS were designed and delivered to *Nyala Dairy* to structure, implement and administer a new loan facility to provide green energy products to their members. The BDS included the development of a study describing the facility's structure and required administration procedures, identification of partners to administer loans, definition of priority green products, development of a monitoring framework for environmental impacts and an Environmental Impact Assessment (EIA). The new structure was designed to provide household solar installations

for electricity generation, the sales of water purification systems, and energy-saving stoves. *Nyala Dairy* was expected to provide education and training on the benefits and uses of renewable energy, and contribute to climate change reduction efforts by reducing the demand for fuel wood and kerosene usage in the region.

A second round of BDS was deployed to better serve this new approach leading to a partnership with '*Juhudi Kilimo*', a newly established for-profit enterprise engaged in micro asset financing with a focus on rural economic development. A feasibility assessment, conducted in the *Nyandarua* area, found that there was a major market for farmers who want to start dairy farming and require technical training and a well-designed credit product. The presence of the *Nyala dairy* did not however fill the lack of financial assistance required to support the population of dairy farmers. Ultimately, it was therefore found that *Juhudi*



*WH-LEEP designed and delivered technical assistance to the Nyala Dairy to structure, implement and administer a new loan facility to provide green energy products to their members.*

The 'Kimahuri Youth United' Self Help Group, consisting of 25 members are engaged in two conservation-based enterprises (a sericulture project and a trout fish-farming project), received support for a business development plan.



would open a satellite office as soon as possible with one loan officer. *Verde Ventures* then provided the BDS support to *Jubudi* to determine the business viability of this expansion, and apply for a loan. However, having adequate loan capital, *Jubudi* did not eventually require the loan.

Finally, the 'Kimahuri Youth United' (KYU) Self Help Group, consisting of 25 members engaged in two conservation-based enterprises (a sericulture project and a trout fish-farming project), was supported. Through the sericulture project, KYU has been planting and raising mulberry trees to provide food for silkworms that are being reared by the group. Silk fibers are then harvested from the cocoons of the silkworms and processed to make silk garments. The fresh (or powdered) mulberry leaf is also used for human and livestock consumption. As part of the group's trout fish farming project, KYU constructed six fishponds containing approx 15,000 fish, as well as a clean water conveyance system. The group has also constructed a fish hatchery with a capacity of about

15,000 trout eggs, and 8,000 fingerlings, which are supplied to other fish farming groups and individuals who restock the rivers.

*Verde Ventures's* BDS support to KYU was aimed primarily at strengthening the organization's business administration and decision-making processes. The BDS package included a business development plan (for silk and trout), which included operational plan, industry analysis, competitive comparison, strategy & implementation, and organizational structure development. A financial plan, with a "break-even analysis" and a financial audit for prior years of activities, was also developed. Similar to *Nyala Dairy*, an EIA listing environmental threats and mitigation strategies, provided all the necessary documents and information for KYU's proper management. Finally, KYU received financial training and accounting software training, and was registered and certified by Kenya's Bureau of Standards (BBS).

The support provided by LEEP for KYU has also been dependent upon the successful implementation of the group's conservation objectives. These objectives include: (i) the planting and care of the mulberry trees that will help to restore forest cover and reduce soil erosion; and (ii) the rehabilitation and protection of the water catchment by reducing soil erosion and siltation of the river water, ensuring a source of clean water necessary for trout rearing. Both projects are alternative income-generating activities that reduce communities' reliance on natural resources from the Mt. Kenya Forest, thus creating a buffer zone between the Mt. Kenya WHS and the neighboring communities.

*Verde Ventures's* operation in Kenya demonstrates the potential that non-farm activities have both on environmental conservation, as well as on the income generation and socioeconomic development of traditional livelihoods. The projects described above indicate how innovative business solutions have great potential to shift communities towards sustainable practices, while offering tangible alternatives to the poor. LEEP's experience in Africa also makes clear that while innovative business solutions are possible, it is critical to keep in mind their environmental impacts, and how communities will change due to increasing economic opportunities.

### Initial lessons learned from WH-LEEP

During the period of LEEP's implementation since 2007, the programme has made important progress. Building on COMPACT's experience and network of field partners, the programme provided further support to selected SMEs engaged in businesses with significant social, environmental, and economic positive impacts. The approach also contributed to the consolidation of the target WHS by empowering local organizations, strengthening local institutions, and improving the enabling environment for sustainable development. A few lessons for similar interventions include the following:

Field assessments of projects that applied for LEEP support found widely varying linkages between their core business and biodiversity. This was one of the main reasons for the low approval rates of grants and loans by the CI approval body.

As a loan programme, LEEP applicants required cash flows adequate to service the debts they were applying for. The majority of applicants could not demonstrate this for a variety of reasons, both internal and external. The lack of a cash flow, as well as typically weak balance sheets, made it difficult for SMEs to access financing. One of the key tools in addressing the lack of cash flows was the use of value chain assessments which provided guidance both to the SMEs and *Verde Ventures* as to where best to focus BDS or loans. On the ground, the reality is that this takes time to implement, and time for cash flows to turn around.

Throughout the implementation of BDS in all countries served by LEEP, there were clear challenges in identifying appropriate local technical advisors to assist the COMPACT local coordinators in the implementation of projects.

In some instances, an inclusive planning process proved difficult to manage, and usually takes longer than initially expected. Through a "patient capital" approach, spanning four years from 2009 to 2013, each enterprise development plan was nonetheless either implemented in full, or closely followed the proposed schedule.

LEEP has identified that the duration of BDS support is often insufficient. In many cases, a single short-term contract of support has not been sufficient to build the level of SME capacity needed to access loan capital. Apart from the lack of audited accounts, some of the SMEs require ongoing support for accounting and book keeping in order to build "bankability" and long-term sales relationships. *Verde Ventures* and COMPACT have addressed these constraints by providing continuing field support, as well as by encouraging the appropriate budgeting for core business planning.

While in most cases the local or national BDS providers chosen by *Verde Ventures* for each SME were able to deliver acceptable outcomes, the quality of their products was generally not initially deemed "sufficiently professional" to share with the CI investment committee. As a result, in a number of cases, *Verde Ventures* was required to invest additional time and resources in order to supplement the quality of the local BDS providers.

## Endnotes

1. The authors would also like to acknowledge support provided by Curan Bonham and Bradford Castro working with the CI Verde Ventures team in the preparation of this chapter.
2. A value chain can be defined as “the sequence of value-adding activities, from production to consumption, through processing and commercialization. Each segment of a chain has one or more backward or forward linkages.” From Devaney C. Miller, A. and L. Jones (2011) *Agricultural Value Chain Finance* (Rome: FAO and Practical Action Publishing, 2010).
3. Recent interest by both economic development agencies and a growing number of “impact investors” suggests however that support for agricultural businesses is increasing. Impact investing, which is a type of investment strategy based on the generation of social and environmental benefits while also generating acceptable financial returns, has provided new opportunities to address rural poverty through market-based solutions.
4. Verde Ventures was established in 2001 to provide investment capital and post-investment support to growth oriented small businesses that directly contribute to biodiversity conservation outcomes in hotspots, tropical wilderness areas, and key marine ecosystems. Verde Ventures was chosen to partner with WH-LEEP given its expertise in performing business analysis, determining project viability, and its repayment track record. Verde Ventures’s investment committee is comprised of investment bankers and investors who have substantial experience in analyzing small businesses worldwide.
5. A few exceptions were made, based on a case-by-case evaluation carried out by Verde Ventures and SGP staff, where a few mature COMPACT partners were considered eligible to receive a loan even before the full realizations of their BDS plans.
6. As described below, in the case of Kenya, a for-profit enterprise *Juhudi Kilimo* was engaged in micro asset financing with a focus on rural economic development.
7. In addition, applicants were expected to: have been identified by the COMPACT local coordinator; have a board/business structure; have generated sales and/or demonstrate strong relationships with clients; addresses rural poverty; and show a willingness to grow and learn.
8. Value Chain Development - <http://microlinks.kdid.org/topics/value-chain-development>
9. COMPACT has however recently granted *Flor de Tajonal* a second grant to strengthen the financial capacity and confidence of the management team. This second BDS support was made possible by transferring the unused resources from *Integradora* to this group.

## **Chapter 11** Looking ahead: potential new opportunities for COMPACT to support the World Heritage Convention





## Looking ahead: potential new opportunities for COMPACT to support the World Heritage Convention

TIM BADMAN AND GUY DEBONNET

The World Heritage Convention acknowledged, from the outset, that securing the support of communities is absolutely crucial to achieve its conservation objectives: article 5 of the Convention stipulates that in order to ensure that effective and active measures are taken for the protection, conservation and presentation of the cultural and natural heritage situated on its territory, each State Party shall endeavor to adopt a general policy which aims to “*give the cultural and natural heritage a function in the life of the community*”.

The decision by the World Heritage Committee in New Zealand in 2007 to add ‘communities’ as the “fifth C” under the strategic objectives of the Convention,<sup>1</sup> reiterated the importance of local values, as well as the principle of equitable sharing of the benefits arising from World Heritage inscriptions. The role of local communities in

ensuring that World Heritage contributes to sustainable development was chosen by the World Heritage Committee as the central theme for the celebration of the 40th anniversary of the Convention. This theme gave recognition to the fact that local communities and indigenous peoples are, and have been for centuries, the custodians of many World Heritage sites. The focus on communities also celebrated how the Convention has played an important role in fostering local sustainable development.

At the same time, civil society organizations have been pointing out that the Convention could still do more to identify and recognize the cultural values, as well as the rights, of local communities and indigenous peoples under international instruments, including the UN Declaration on the Rights of Indigenous Peoples (Te Heuheu et al 2012).

*The territories inhabited by indigenous peoples, such as the Maya, are rich in biodiversity and traditional knowledge. The Convention has in many cases played a positive role for indigenous peoples by helping them protect their lands, cultures and heritage*

*Overleaf: Article 5 of The World Heritage Convention states that each State Party shall adopt measures to give the cultural and natural heritage a function in the life of the community.*



Following a discussion on the involvement of indigenous peoples in World Heritage nominations held at the UN Permanent Forum on Indigenous Issues (UNPFII) in New York in May 2011, a number of follow-up recommendations have been submitted by the World Heritage Committee. In particular, the 35th session of the World Heritage Committee in Paris in June 2011 which encouraged State Parties to:

*“Involve indigenous peoples and local communities in decision making, monitoring and evaluation of the state of conservation of the properties and their Outstanding Universal Value and link the direct community benefits to protection outcomes,*

*“Respect the rights of indigenous peoples when nominating, managing and reporting on World Heritage sites in indigenous peoples’ territories.”<sup>2</sup>*

As part of the events to mark the 40th Anniversary of the World Heritage Convention in 2012, an expert meeting was organized in September 2012 by the Government of Denmark on the topic of ‘World Heritage Convention and Indigenous Peoples’. Various experts and indigenous representatives at the meeting recognized that the Convention has in many cases played a positive role for indigenous peoples by helping them protect their lands, cultures and heritage, but also warned that in some instances a risk existed that growing misunderstandings and lack of consultations could jeopardize the rights of indigenous peoples under the Convention (Disko and Tugendhat 2013). This discussion will no doubt be taken up further by the World Heritage Committee as it strives to ensure that the Convention processes enable indigenous peoples to fully participate.

In this context, the benchmark publication for the 40th Anniversary ‘*World Heritage: Benefits Beyond Borders*’ explored a range of examples where sustainable development activities are taking place within natural World Heritage properties; cultural properties, including historic cities; as well as cultural landscapes.<sup>3</sup> Amongst the different country and individual site-based examples described in the volume, the COMPACT model presents a unique experience where a standardized methodology for landscape-level conservation, with an explicit focus on the livelihood needs of local communities living within World Heritage landscapes, has been

developed and tested over a twelve year period across the world. IUCN has also begun reviewing its practices, through a process of “learning by doing”, to ensure that increased community input to the evaluation of nominations is received (Larsen 2012).

There are clear opportunities to ensure that lessons learned from the COMPACT programme, with its experience of working in a range of World Heritage sites over many years, are adopted within the mainstream of the World Heritage Convention. In particular, some of the following elements and/or recommendations may be of relevance to the World Heritage Committee, and States Parties, to consider:

- a) adoption of a multi-stakeholder Local Consultative Body (LCB) for World Heritage sites to ensure the principles of accountability, transparency and good governance promoted by the IUCN for the management of protected areas;<sup>4</sup>
- b) developing sustainable financing schemes to fund small grants at the level of individual protected areas (as demonstrated by COMPACT) which offer potential to increase the local ownership, as well as the conservation effectiveness, of World Heritage inscriptions; and
- c) developing synergies and linkages between COMPACT and the ‘Enhancing our Heritage’ tool developed by the World Heritage Centre, IUCN and UNEP, to improve the management effectiveness and governance of World Heritage sites and their wider surrounding landscapes.

Building on the three-way collaboration agreement signed between the World Heritage Centre, the CBD Secretariat and the SGP in 2004, a number of new partnerships and institutional agreements have also been emerging to continue the work in the demonstration sites. In Belize, for example, the international Oak Foundation has agreed to provide funding to the UNDP to build on the community-based seascape conservation approach developed in support of the Belize Barrier Reef.

Efforts are already underway to promote the COMPACT approach in new initiatives within the work of the Convention. With support of

Spain and the Netherlands, a toolkit is under preparation which will make the tools developed by COMPACT to better engage local communities for the conservation of World Heritage sites available to the global network. Within the 'Africa Nature' programme, a capacity building initiative developed by the World Heritage Centre, IUCN and the African World Heritage Fund, significant opportunities exist to scale up and replicate the COMPACT approach by mainstreaming it in cooperations with the regular grant-making of the GEF Small Grants Programme.<sup>5</sup> In Ethiopia, following collaboration between the World Heritage Centre and the SGP, the UNDP Country Office has recently decided to provide support to apply the COMPACT approach for the Simien Mountains National Park. In Madagascar, plans are also underway with support from Norway to use the COMPACT approach to engage local communities living in and around two protected areas included within the Rainforests of the Atsinanana World Heritage site.<sup>6</sup> Both of these sites are currently included in the List of World Heritage in Danger.

As the advisory body responsible for the evaluation of natural World Heritage nominations, IUCN has taken a growing interest in the work of COMPACT as part of a screening and assessment tool to evaluate the engagement of local communities and indigenous people in the nomination process and the management of proposed sites (Larsen 2012), as well as to review the governance and management arrangements of World Heritage sites during state of conservation assessments. IUCN is also seeking new opportunities to link its work with ICOMOS and ICCROM. In this light, the COMPACT demonstration sites provide excellent opportunities to consider approaches to linking nature and culture within the Convention.

The many celebrations which took place to mark the 40th anniversary of the World Heritage Convention in 2012,<sup>7</sup> have given new impetus to the discussion on how the Convention can be used

more effectively to foster sustainable development to the benefit of local communities. The lessons learned from COMPACT and the planned toolkit to replicate the approach in additional World Heritage sites will be important practical steps to achieve the full and effective participation of indigenous peoples and local communities in the work of the Convention.

## Endnotes

1. The definition of 'community' is broadly interpreted as referring to "non-state actors" and builds upon the previous "four C's" approach (credibility, conservation, capacity-building and communication) adopted by the World Heritage Committee in Budapest in 2002.
2. Decision WHC-11/35.COM/20 p.271.
3. Launched in Kyoto, Japan, in October 2012, the publication reviews over twenty-five individual experiences of World Heritage Sites engaged in sustainable development activities – including two on the COMPACT approach.
4. See: Borrini-Feyerabend et al (2013). *Governance of Protected Areas: From Understanding to Action*. Best Practice Protected Area Guidelines Series No. 20, Gland, Switzerland: IUCN .
5. According to the SGP Central Programme Management Team, as part of its preparations 6th Operational Phase (OP6) running from 2015-2018, the SGP is in the process of incorporating the COMPACT landscape/seascape approach at a number of World Heritage sites, Biosphere Reserves, and other globally significant landscapes.
6. In Ghana, lessons learned from the COMPACT landscape approach are being replicated by the SGP with the government of Japan 'Satoyama Initiative' for globally significant agricultural landscapes.
7. A series of joint events were organized by UNESCO WHC, IUCN and the GEF SGP during the IUCN World Conservation Congress in September 2012, and CBD COP11 in October 2012.





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### Photo credits

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# COMPACT

## Engaging Local Communities in Stewardship of World Heritage

Since the year 2000, the Community Management of Protected Areas Conservation (COMPACT) programme has been testing an innovative model for engaging communities in conservation. An initiative of the UNDP-implemented GEF Small Grants Programme (GEF SGP) and the United Nations Foundation (UNF), the programme has been working with communities near eight current/proposed UNESCO World Heritage sites in Africa, Asia, Meso-America and the Caribbean. Through extensive on-the-ground experience, and a participatory methodology that integrates a scientific and cultural approach, COMPACT has been demonstrating that community-based initiatives can significantly increase the effectiveness of biodiversity conservation in globally significant protected areas.

The publication introduces the COMPACT model and reviews its 12 years of experience. Chapters from each target country illustrate how COMPACT is working in diverse settings, highlighting the underlying principles behind its community-driven approach and its key planning frameworks. It explores lessons learned from COMPACT regarding effective co-management and governance of protected areas, techniques of community engagement, linking conservation to local livelihoods, trans-boundary cooperation, as well as other issues key to sustaining the landscapes/seascapes recognized under the World Heritage Convention and protected areas generally.

*“As a flagship programme of the GEF, the SGP has been pioneering new and innovative approaches for transformational change in the governance of the world’s protected areas. The review of the COMPACT programme highlights a tremendous opportunity to scale up this approach for the protection of the global network of World Heritage sites, Biosphere Reserves, and other globally significant Satoyama landscapes and seascapes in the struggle to safeguard the global commons.”*

— Naoko Ishii, CEO, Global Environment Facility

*“Local communities and indigenous peoples have been the custodians of many World Heritage sites for centuries. Through the twelve years of the COMPACT initiative, we have learned a lot on how to engage these communities in addressing today’s numerous challenges for the protection and management of these globally significant sites and landscapes. Through this book, we hope these lessons learned can be extended to the entire global network of World Heritage sites.”*

— Kishore Rao, Director, UNESCO World Heritage Centre



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