

**Co-management of natural resources in Central America:
The road to “equitable distribution of the benefits of biodiversity”
or another empty discourse of the technical elite?**

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BASED MANAGEMENT AND CO-MANAGEMENT OF NATURAL RESOURCES AND
PROTECTED AREAS: focus on coastal and marine resources and Indigenous People’s
communities in Central America and the Caribbean**

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Overall study aim and objectives

This study is part of an EPP initiative that aims to contribute to enhancing equity in the relationship between indigenous and local communities and protected areas by providing key information to structure coherent and effective agenda and products for the V World Congress on Protected Areas (Durban, September 2003) and beyond.

This study, one of a number commissioned around the world, focuses on coastal and marine resources and Indigenous People’s communities in Central America and the Caribbean drawing key lessons, issues, needs, challenges and options for regional empowerment from a review of community-managed resources; community conserved areas and co-managed protected areas. The commissioned studies will together inform a global overview compiled by Grazia Borrini-Feyerabend to be presented at the V World Congress.

Summary

The Central American and Caribbean region are confronted with well known, acute socio-economic problems relating to poverty and poor governance. Governments are poorly funded and often overwhelmed with the burden of poverty alleviation and maintaining basic infrastructure. Conservation efforts have often concentrated on imported models of protected area systems that not unsurprisingly fail to be effective on the ground owing to lack of financial, political and sometimes popular support.

Sharing the burden and benefits of sustainably managing natural resources between local communities and other state and non-state actors, co-management (CM), would appear to hold much promise in the regional context. However, progress has been slow or non-existent in achieving this “equitable sharing of the benefits of biodiversity” (to paraphrase the Convention on Biological Diversity) and improved management of natural resources. There are some notable exceptions, and an analysis of these as well as the failures provides some useful options for action which may be broadly considered as:

- Integrate CM into the broader national realities, socio-economic and policy contexts in order to realize its potential to provide wider and more immediate social benefits from biodiversity.
- Recognize and work with indigenous peoples and their territories, bearing in mind the large proportion of the region’s natural resources under their stewardship and their marginalization to date.
- Make CM a fundamental cornerstone of the merging regional efforts towards Integrated Coastal Zone Management.

Suggestions are made with regard to policy and legislation, capacity building, and donor support.

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Overview

The present study identifies some of the key issues in the region which impinge on human well-being and protected areas and then after reviewing a wide number of cases compiled in the annexes examines some key challenges and options for action. The results of the questionnaire survey were sparse as is habitual in this and other regions and reliance was by necessity placed on information sources comprising published and un published literature and correspondence with regional actors, these are listed in the annexes.

Key Issues

The following key issues regarding protected areas and human well-being in the Central American and Caribbean region were identified based on the general literature and other regional sources.

Key issue - Regional instability and poverty

The past two decades have been tumultuous for Central America with a succession of wars, civil strife and natural disasters combining to place immediate survival as the highest agenda item for many rural communities. Political changes, both democratic and non-democratic, have led to large, and sometimes erratic, changes in national policies including those affecting the environment.

Key issue – Poverty alleviation, an overarching priority of cash-strapped governments

Given the urgent attention that combating poverty and (re)building requires in the region it is hardly surprising that almost no funds are available for implementing systems of conservation which in themselves are often more appropriate to affluent Western countries (see Box 1). Thus, the main problem facing classic conservation efforts is the lack of resources needed for their implementation in terms of operating costs, staff, staff training, land purchase, research, planning and legal and institutional support.

Box 1: Environment ministries running on empty: The Minister for the Environment of, arguably the most affluent of the Central American countries, Costa Rica, recently noted that the budget allocations to the regions' Environmental Ministries is barely a fraction of a percentage point of the national budgets; insufficient to maintain existing conservation efforts much less increase them. There is no prospect of this improving in the near future .

Source : Minister C.M. Rodríguez, SMBC Conference, 2002

Key issue – Exclusion of indigenous and rural populations

Indigenous peoples inhabit some of the most remote and inaccessible areas which also include the majority of the large tracts of remaining natural resources in the region. The geographical and political conditions conspire to ensure that socio-economic hardship and strife are common in these areas resulting in poor if any government inter-actions with these populations. Thus, realistic strategies are lacking for the sustainable management of a large proportion of the remaining important terrestrial and coastal ecosystems.

Key issue – Paper parks¹

Despite the unpromising backdrop, the number of designated protected areas has more than doubled over the last 30 years to over 400 or around 11 million Ha. However, the harsh realities of the region prevent many of these protected areas having the desired conservation impact. Commentators over the last 10 years have been warning that these protected areas, despite their declared legal status, are really only protected on paper, and lack any real means of preventing degradation.

Key issue – Land tenure and management

The increasing demographic pressures and the advance of the agricultural frontier have also meant that land is at an ever-increasing premium. Allocation of land rights has been hotly disputed and indeed central to a number of conflicts in the region, the allocation of land (or the power over it) is thus regarded in many areas as an extremely delicate matter.

¹ Sources for this and the final key issue: McCarthy and Salas 1998, CCAD. 2002. Campbell/GEF N.D. GEF 2000. Mack 1994. WRI 1998. CCAD and IUCN 1996

Key issue – Neglect of coastal environments

The situation in coastal areas is possibly amongst the most critical as they received little conservation attention until recently and the fragile ecosystems such as coral reefs, mangroves and sea grasses suffer not only the direct impacts of coastal populations but also the effects of terrestrial degradation transported by waterways from many miles inland.

Key issue – Implementing sustainable use and management of natural resources

In recent years Central America has begun to widely promote its biodiversity and natural resources as the basis for sustainable socio-economic development, most notably in the forum provided by the Mesoamerican Biological Corridor initiative. Unfortunately, the outcomes of these proposed policy changes are yet to be felt in many areas and getting past the rhetoric is proving elusive. National policy and legislation is in a number of cases sadly lacking and the capacity of overworked and under-funded Ministries to interpret these is low.

Relation of key issues to protected areas and human well-being

Given the potential of local and indigenous participation in the management of protected and biologically important areas (loosely defined as co-management or CM in the rest of this report) to provide sustainable livelihoods while at the same time reducing the cost of maintaining biodiversity, it is perhaps surprising that co-management (CM) has had a difficult genesis in the region.

Conservation “solutions” have often been generated by experts from outside the region (or trained outside the region) and as these solutions have often proven impractical in national situations, “conservation” has often become regarded as more of a problem than a potential solution by local populations and governments alike. Where CM has been promoted it has often been by small sectors of the conservation lobby thus garnering little political or local support from the outset.

The promoters of CM have so far had little success in integrating CM as part of the solution to the socio-economic woes of the region, with some notable exceptions. Based on the experiences to date from the region and elsewhere (summarised in Annex 4 and 5) a number of priority areas for action are identified and discussed below.

What can we do about it?

Three priority areas for realizing the considerable potential that CM has for the sustainable development and conservation of the region have been identified in this study, namely:

1. Promote CM in the national socio-economic and policy contexts
2. Recognize the vital importance of indigenous peoples and their territories
3. Consider CM as a necessary component of coastal zone management

Below each of these areas are considered separately, all require action in at least three general fields:

- Provide appropriate training and support
- Refine environmental legislation and policies to mesh with socio-economic needs
- Improve the targeting of donor and international support

SUB-HEADING 1. Promote CM in the national socio-economic and policy contexts

Local participation in the management of, and benefits derived from, protected areas and their buffer zones has the potential not only to improve the enforcement of core protected zones but also to fulfil a series of key national priorities such as improving livelihoods and local governance.

CM has been unable to present itself as an attractive option to a majority of the countries in the region. The aspects of CM most likely to be of interest are the potential economic benefits in terms of reducing long term conservation costs and providing sustainable livelihoods while meeting other development and governance objectives.

CHALLENGE - Promoting CM as an economically attractive option for the region.

A centralised approach to conservation (and indeed development) may be expected to have relatively low program design costs but high implementation, monitoring and enforcement costs. This scenario goes a long way to explain the proliferation of relatively ineffective protected areas in the region. A CM approach on the other hand may be expected to have high program design costs, as creating the right conditions for effective participation is time consuming, but once established is likely to have lower implementation, monitoring and enforcement costs. Cash-strapped environment ministries may consider following the lead of Nicaragua (see Box 2: Nicaragua integrating CM into the national policy context) in the promotion of CM as an affordable means of attaining conservation objectives.

Box 2: Nicaragua integrating CM into the national policy context:

The Nicaraguan Ministry of the Environment (MARENA) is pioneering the devolution of management of 6 national protected areas to co-management involving local communities, engineers and the state. This has required significant legal and policy change, much capacity building at every level including the state and the development of small-scale sustainable businesses.

Source: COMAP/MARENA

CHALLENGE - Promoting CM as an answer to national needs and not the exclusive domain of environment ministries and conservation “technicians”

There is a need to mesh conservation efforts more seamlessly with the harsh realities and poverty alleviation priorities of the region. CM if carried out appropriately may afford a means of improving livelihoods, governance, equity and other national priorities.

CHALLENGE - Identify and develop income-generating activities compatible with sustainable management

Box 3: Coastal protected areas in Belize:

A number of coastal and marine protected areas have developed over the last 15 years in Belize. Commonly these include a degree of partnership with local communities which involves local advisory councils and forms of alternative income generation such as tourist guides and sport fishing. In general, experiences are very promising and communities are deriving important benefits.

Source: Barborak et al. 2002, Maheia pers. Comm.

A number of successful CM experiences in the region depend on income generation through eco-tourism activities (Box 3: Belize). Other options are being used but in many areas eco-tourism does not present a realistic option and sustainable extractive activities may have to be considered such as the extraction of naturally fallen timber (Box 4: Fallen timber extractive reserves in Costa Rica) or wildlife ranching. The technical aspects of these operations need support as do reliable monitoring and control methods.

Box 4: Fallen timber extractive reserves in Costa Rica:

A local NGO, Fundacion TUVA, demonstrated in the 1990s the economic and ecological viability of harvesting naturally fallen, commercially valuable, hardwood resources in buffer zones and indigenous reserves in Southern Costa Rica. A number of local communities derived commercial benefit while maintaining the biodiversity of these reserves, the practices obtained ecological certification but suffered from unfavourable and at times directly damaging national policy.

Source: www.tuva.org

CHALLENGE - Assist stakeholders in CM processes in maintaining low transaction costs

In CM many of the costs of design and implementation are passed on from government to the stakeholders. These transaction costs can be grouped into three major categories namely information costs, collective decision-making, and lastly collective operational costs². This last comes in three forms: (i) monitoring, enforcement, and compliance costs (ii) resource maintenance costs, and (iii) resource distribution costs. The ability to minimize these transaction costs is therefore critical towards the sustainability of co-management. It is important for government stakeholders to be aware of this dynamic and be able to identify areas in which they are able to reduce transaction costs or at least not raise them. Established inflexible procedures may unnecessarily raise transaction costs, communities may find dealing with legal aspects much more burdensome than ministry officials do. See Box 11: A missed opportunity in Bocas del Toro, Panama, and Fig. 1.

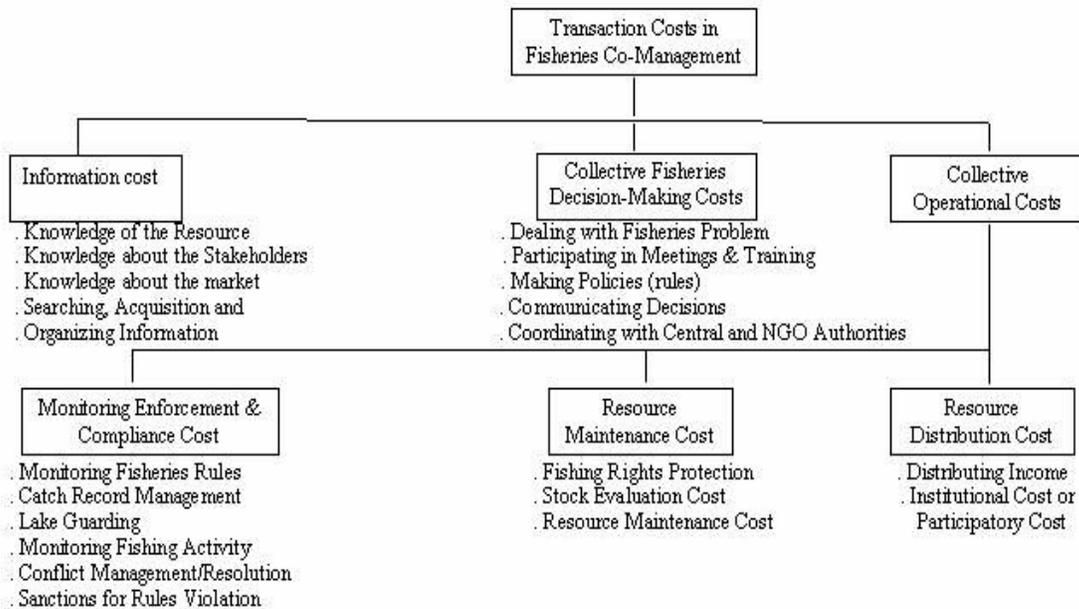


Figure 1. Transaction costs in fisheries CM (Murshed-e-Jahan et al. 1999)

² Nik Mustapha et. al (1998)

CHALLENGE - Ensure monitoring of effectiveness of CM approaches takes into account the variety of (non-conservation) objectives

If CM is attempting to address a wide range of national or regional priorities, monitoring and evaluation will need to take this into account. Thus not only will biological indicators need to be considered but also wellbeing, organizational, equity, and so on. The significance of this resides in the sharing of benefits of these initiatives such that while the conservation or social benefits alone may not justify the intervention, when all benefits are considered they may amply justify the investments made.

OPTIONS FOR ACTION AND ADVICE

- Compile and analyse information on the economic costs and benefits of a CM approach in the regional context (see Box 5: Bonaire Marine Park).
- Seek to disseminate these findings at a national and regional policy making level including the forums presented by the Mesoamerican Biological Corridor and the Plan Puebla-Panama.
- Make available experiences, possibly through technical support, in sustainable income generation from CM areas such as eco-tourism, sport fishing (see Box 3), fallen timber extraction (see Box 4) amongst others.
- Monitor the progress made by Nicaragua with its CM program and highlight the importance of this pilot (see Box 2).
- Design monitoring and evaluation frameworks that meet the broad objectives that CM needs to meet in the regional context while not supposing an unrealistic burden on relatively underfunded projects.

SUB-HEADING 2. Recognize the vital importance of indigenous peoples and their territories

The Mesoamerican region which include the territories of Mexico and the Central American countries is not only a biologically very rich area, but also presents a high diversity of cultures, housing over 100 main ethnic groups with an estimated population of about 18 million people³, (10 million if only Southern Mexico is included⁴, see Table 1).

Box 5: The costs of running Marine Parks – Bonaire and St Eustatius:

The Bonaire National Marine Park extends over some 3,000 Ha and 85km of shoreline. The BNMP is completely managed by an NGO without government involvement. The running costs are raised through diving fees charged by the local dive operators who together with the NGO are the main stakeholders involved in the management of the BNMP. Annual running costs are estimated at US\$300,000, around half of which are spent on personnel.

The St. Eustatius Marine Park is smaller and younger than the BNMP and is also run by an NGO. The SMP was established by Ordinance in 1996 without community involvement, a fact that has caused local friction and requires investments in community actions by the Park. The income from user fees is inadequate and the management has initiated a volunteer program that supplies much needed staffing. The annual budget is around US\$85,000. The costs of running these two marine parks are prohibitively expensive for many governments in the region, by devolving power to an NGO workable solutions have been found.

Sources: Fernando Simal, Kay Lynn Plummer

³ Toledo et al. 2002.

⁴ National Geographic and Native Lands 2002

Country	Ethnic group				Totals
Belize	Garifuna	14.061	Mopan	8.980	45457
	Kekchi (Q'eqchi')	12.366	Yucatec/Itza'	10.050	
Panama	Bribri	2.521	Naso (Teribe/Térraba)	3.305	284,754
	Buglere	18.724	Ngöbe	169.130	
	Emberá	22.485	Wounaan	6.882	
	Kuna	61.707			
S. Mexico	Chol	217.442	Mam	22.260	2,469,052
	Chontal	51.801	Tojolabal	61.052	
	Chuj	1.800	Tzeltal	442.444	
	Jakalteko	7.460	Tzotzil	386.626	
	Kanjobal (Q'anjob'al)	17.593	Yukateko	1.199.586	
	Lakandon	862	Zoque	60.126	
El Salvador	Cacaopera	N/A	Nahua/Pipil	N/A	500,500
	Lenca	N/A			
Guatemala	Achi'	60.000	Poqomam	140.000	6,538,000
	Akateko	42.000	Popti'	90.000	
	Awakateko	35.000	Poqomchi'	270.000	
	Ch'orti' (Chorti)	80.000	Q'anjob'al (Kanjobal)	220.000	
	Chuj	90.000	Q'eqchi' (Kekchi)	900.000	
	Garifuna	5.000	Sakapulteko	45.000	
	Itza'	2.000	Sipakapense	6.000	
	Ixil	140.000	Tektiteko	5.000	
	Kaqchikel	1.100.000	Tz'utujil	160.000	
	K'iche'	1.900.000	Uspanteko	25.000	
	Mam	1.200.000	Xinca	20.000	
	Mopán	3.000			
Honduras	Chorti' (Ch'orti')	6.000	Miskito (Miskitu)	64.000	492,859
	Garifuna	200.000	Nahoa	1.300	
	Indios de Texihuat	2.306	Pech	2.900	
	Isleño	80.000	Tawahka	1.353	
	Lenca	110.000	Tolupan	25.000	
Nicaragua	Chorotega	19.000	Nahua	40.000	393,850
	Creole	43.000	Nicarao	12.000	
	Garifuna	2.000	Rama	1.350	
	Matagalpa	97.500	Sumu/Mayangna	13.500	
	Miskitu (Miskito)	125.000	Sutiaba	40.500	
Costa Rica	Bribri	10.369	Huetar	1.620	36,449
	Brunka	2.869	Maleku	1.083	
	Cabécar	14.275	Ngäbe-Buglé	3.516	
	Chorotega	958	Teribe/Térraba	1.759	
TOTAL					10,760,921

Table 1. Population estimates of indigenous peoples in Southern Mexico and Central America (National Geographic and Native Lands 2002).

The indigenous peoples face considerable odds, and often lack the organizational skills and financial resources to confront them adequately. They have few allies and the spaces, where they exist, are generally small. In no country in the region are governments supportive of indigenous peoples; in several countries – especially Guatemala, Panama, Honduras, El Salvador – relations are extremely hostile, even violent⁵.

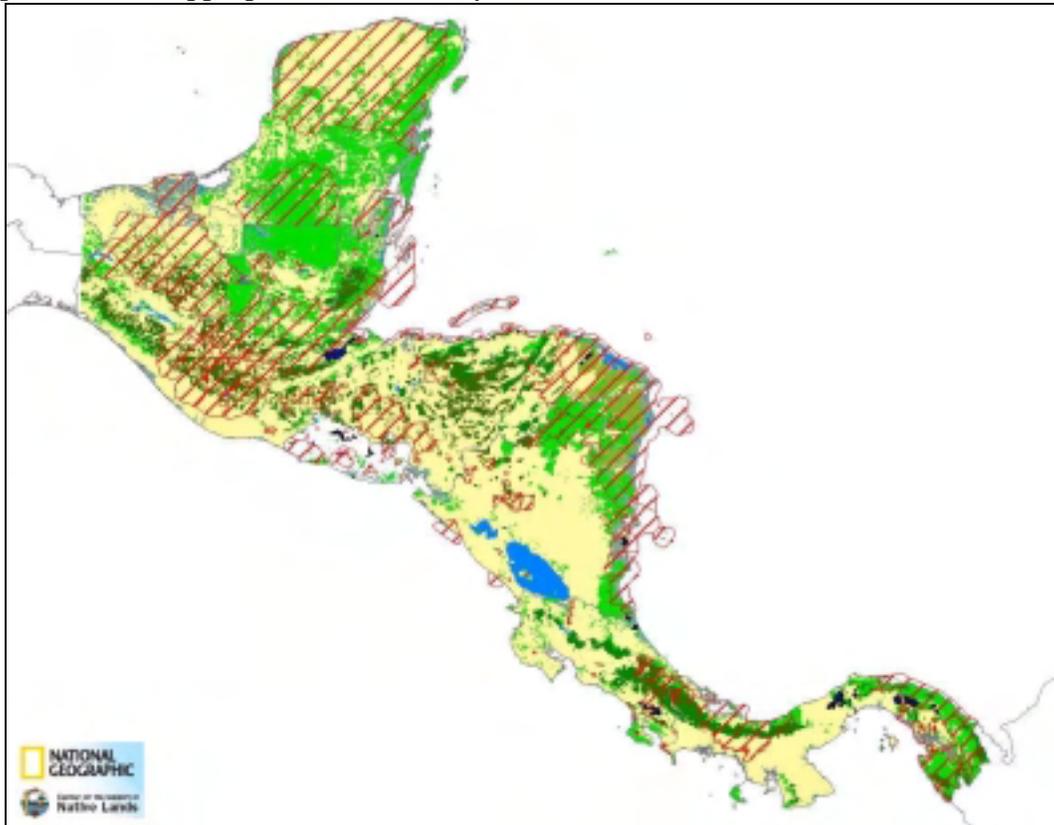
The continued existence of aboriginal cultures and languages in the region is proof of the incredible resilience of these indigenous peoples to colonization and impositions of the new arrivals. This resilience alone goes a long way to explaining the failure of western conservation paradigms in these areas.

However, that external attempts to impose “conservation” on indigenous peoples are strongly resisted does not mean to say that sustainable resource management is not taking place, or at

⁵ Native Lands 2000

least has not until recently. The areas occupied by indigenous peoples correspond with a majority of the areas with important forest cover and coastal habitats⁶ (Map 1.).The land and sea area occupied or used by indigenous peoples in the region surpasses 300,000 Km², more than double the area managed under protected area regimes in the region⁷. A number of promising collaborations between indigenous peoples and conservation organizations working towards combined models of indigenous territories and protected areas are emerging from the hitherto checkered history of failed attempts and even outright hostility.

The research accumulated in the last three decades by conservation biologists, linguists and anthropologists has converged toward a shared principle: the world's biodiversity will be effectively preserved only by protecting the diversity of human cultures and vice versa⁸. This precept must be taken very seriously by planners and conservationists wishing to influence the conservation of the region. The current discourse merely pays lip service to this idea but for effective actions to emerge the debate has to be taken to the indigenous communities and developed on terms appropriate to these very different cultures.



Map 1. Forest and mangrove habitats in Mesoamerica and areas occupied and used by indigenous peoples. Source: modified after National Geographic / Center for Native Lands / World Bank 2002.

⁶ National Geographic and Native Lands 2002,

⁷ Govan preliminary estimates based on National Geographic and Native Lands 2002; McCarthy and Salas 1998; Campbell/GEF N.D.

⁸ Toledo et al. 2002.

CHALLENGE - Develop appropriate mechanisms for dialogue with indigenous peoples

For CM to be implemented effectively with Indigenous Peoples the basis, methods and institutional framework for negotiation will have to be re-evaluated. The prevailing methods of negotiating and managing processes are overwhelmingly adapted to western needs. By and large current processes lack the holistic perspective, require decisions or action in short time-spans, are more reliant on simple voting rules and less consensus based than those customary in indigenous cultures.

Most of the activity by indigenous organizations has been carried out on an individual basis, with each group seeking its own set of alliances and collaborative arrangements with sources of technical, political, and financial assistance. The requirement by the dominant culture that indigenous peoples have a representative body with which to negotiate has in some cases resulted in the development of ineffective modern indigenous institutions which may even accelerate the erosion of more authentic and appropriate traditional institutions. In other cases traditional leaders are thrown into an entirely novel decision-making arena with little or no preparation. The indigenous peoples have not yet been able to form an effective, representative organization to coordinate activities and policies at the Central American level⁹.

OPTIONS FOR ACTION AND ADVICE

- National institutions need to examine the basis on which they work with indigenous peoples and where necessary reappraise policy and retrain staff and build capacity inter-institutionally.
- CM programs with indigenous peoples must ensure that they operate through the appropriate indigenous institutions and that these have at their disposal and command the necessary knowledge and skills.
- Where indigenous institutions lack the necessary capacity CM programs should include the strengthening of these institutions and the building of the necessary social capital which may include the strengthening of traditional culture.
- Given that frequently the indigenous view of “conservation” or “environment” will include aspects such as health or culture, for example, it will be necessary to liaise with other government institutions with relevant responsibilities.

Box 6: Non-implemented legislation, worth the paper it is written on? The case of ILO convention 169:

The International Labour Organization Convention 169 on Indigenous and Tribal Peoples has been ratified by 17 countries including Costa Rica, Dominica, Guatemala, Honduras and Mexico. This convention provides some of the strongest legal backing in the ratifying countries for issues such as the defence of territory or respect of traditional practices. However in many cases the convention remains to be applied in these countries needing considerable work particularly in terms of analysis and discussion of how to make operational the broad requirements underlined in the convention in terms of the national legal systems. In the meantime, much of the national environmental legislation in these countries may be of questionable validity in indigenous territories.

Source: Govan unpublished, Cajiao 2002

CHALLENGE - Secure indigenous peoples' effective rights to territory and resources

⁹ Native Lands 2000

With the exception of Costa Rica and, to a lesser extent Panama and Dominica, few indigenous groups have legally recognised territories. Even where the territories have legal recognition, such as in Costa Rica, there is little or no support for effective indigenous control of these territories resulting in large incursions by non-indigenous squatters and ineffective or even prejudicial legal support (see Box 6: ILO Convention 169). Despite this some indigenous groups have had notable successes in implementing control of their territories (for example the Kuna and Awas Tighni).

A central tenet of CM is that the boundaries of and rights over the resources to be managed have to be clearly defined. There is little incentive to invest in the good management of a resource if the benefits are unlikely to be received by the investor. This tenet applies to a far greater extent in the case of indigenous peoples who consider their whole existence to be inextricably linked to the land and have been campaigning tirelessly, and in some cases violently, for these rights in the region.

A high priority for promoting conservation in the region must be the negotiation and consolidation of effective indigenous rights over their territories. Ideally indigenous peoples, governments and NGOs would seek to form effective partnerships to this end but more piecemeal approaches may be the only way forward in some instances.

OPTIONS FOR ACTION AND ADVICE

- The external institutional actors (NGOs and government ministries) should clarify and agree policies with respect to working with indigenous peoples towards common goals of sustainable management of key areas (good examples may be seen in Colombia).
- The appropriate mechanisms for working with indigenous peoples in each country and in some cases region should be debated and defined in the light of decades of experience (see Box 7).
- Support for indigenous attempts at mapping (sometimes as a precursor to planning) should be given high priority using best practice examples available (see Box 8).
- Legal aspects should be given appropriate consideration, in many cases it may be necessary to provide appropriate legal training and external support (e.g. the Ngäbe in Costa Rica and Awas-Tighni in Nicaragua).
- The legal framework in many cases is not a sufficient tool without effective support in its

Box 7: Some considerations on protected areas and indigenous peoples in Central America:

- There is little indigenous participation in the administration of protected areas in the region
- There are policies and laws that adversely affect the integrity of Pas and indigenous territories
- The management plans of some PAs run counter to the traditional practices of indigenous peoples
- In some cases the creation of PAs has opened spaces for participation and political negotiation.
- There are various experiences of Comanagement but with varied results in terms of the types of participation and the benefits.

Source : II Jornada Indígenas” El Salvador, 2000

Box 8: Ethnocartography in Honduras, Panama and Nicaragua:

The early 90s saw indigenous communities in the Honduran Misquitia and the Panamanian Darien carrying out mapping of their traditional lands and resources by the communities themselves with appropriate technical assistance. These maps have served to marshal indigenous planning efforts and in some cases to defend indigenous access and rights or seek legal title. More recently a number of organizations have been supporting the Mayangna and Miskito in the Nicaraguan BOSAWAS region in the mapping and documentation of this co-managed area.

Source: Chapin & Threlkeld 2001, Buss 2001

interpretation and implementation (see Box 6 and Map 2). The ILO convention 169 may provide extremely useful tools and should be carefully examined (see Annex 2 for list of countries that have ratified). Efforts may be needed for institutional stakeholders to promote the constructive analysis of means of best implementing existing legal frameworks.



Map 2: Countries in the region of study which have ratified International Labour Organization Convention 169 on Indigenous and Tribal Peoples (shown in red).

SUB-HEADING 3. Consider CM as a necessary component of coastal zone management

The development of coastal and marine protected areas (MPAs) in the region reflects a growing acceptance of the need to include some form of stakeholder participation in the management process. The Caribbean (excluding Cuba) has some degree of stakeholder participation in the management of more than half its MPAs. Belize has relatively high degrees of stakeholder participation in most of its MPAs while the rest of Central America has perhaps more examples of stakeholder participation in coastal and marine protected areas than in terrestrial areas while not reaching the high proportions of the Caribbean¹⁰. This probably reflects the complex multi-stakeholder and economic issues surrounding such coastal areas.

Box 9: Results of study in the Philippines where there are over 400 community-based MPAs such 6 factors most important for success:

- Small population size
- Successful alternative income projects
- Relatively high level of community participation
- Continuing advice from the implementing organization
- Inputs from the municipal government
- A perceived crisis in terms of fish population

Source: Pollnac and Crawford 2000

Thus there seems to be a relatively wide acceptance of the need for stakeholder participation at some stage in the design or management of these coastal and marine areas (also in the rest of the world e.g. Box 9). However, there are many cases where stakeholder participation could have been implemented more effectively and it is clear that support and/or capacity are often sorely

¹⁰ CANARI 2001, Barborak et al. 2002, Geoghegan et al. 1999, this study.

lacking. Very commonly participation has been implemented after the area has been designated, often in response to negative reactions from the excluded stakeholders. Thus there is much room for improvement.

CHALLENGE - Ensuring that appropriate levels of stakeholder participation are included from the outset

Regional reviews and this study show that frequently problems arise from the exclusion (unintentional or otherwise) of relevant stakeholders from the design and management of MPAs. Evidence suggests that participation of all relevant stakeholders should optimally occur as early as possible in the process and at a level and quality appropriate to the objectives, to the legal and economic situation and the needs of the stakeholders. Where livelihoods are likely to be affected, as in the case of fishers, this is all the more vital.

Committees alone may not provide necessarily provide an adequate means of participation, particularly if they have little power or finance. It is also easy for donors and technical agencies to play a role that inhibits participation of other stakeholders. Even limited levels of participation may improve management planning processes especially if information is provided and transparency achieved.

OPTIONS FOR ACTION AND ADVICE

- Donors and conservation organizations should require projects to carry out preliminary stakeholder analyses and explore the feasible opportunities for different levels of stakeholder participation at the proposal and design stages. (to avoid the situation that arose in Ballena Marine Park, Costa Rica and St Eustatius for example)
- Institutional stakeholders should seek to allow as much flexibility as possible in designing and adapting planning processes to the specific circumstances at a given site.
- Economic impacts on stakeholders should be considered from the outset and realistic economic alternatives included as soon as possible (Box 3: Belize fly-fishing).
- The formation of CM institutions such as Advisory Committees should be carried out with care bearing in mind the representativeness of the members, mechanisms for liaising with constituencies, economic and technical viability of its future actions amongst others. (cf. Barborak et al. 2002)
- The role of outside agencies such as donors and

Box 10: Guidance extracted from Caribbean experiences in the planning and management of coastal and marine resources:

- Efforts and projects that appeal to the motivations (most often economic) of the stakeholders are the most likely to secure their participation;
- Coastal areas undergoing constant and rapid transformation, participatory planning must be a continuous process;
- Data collection on stakeholder communities does not equal participation;
- Continuity requires an effective institutional framework for participation;
- Participation requires the support of effective local organizations;
- Participation can require changes in both the cultures and the structures of the organizations involved;
- Participation requires changes in attitudes towards power and authority;
- More powerful stakeholders will circumvent participatory processes when it serves their interests to do so;
- Participatory processes cannot be prescribed;
- Implementation of participatory planning decisions and management actions requires political support and adequate technical and financial resources;
- The effective design of coastal management regimes employs both popular knowledge and scientific research;

Source: Geoghegan et al 1999

technical organizations should be carefully considered in order to avoid situations where dependencies are created or participation is dominated (e.g. Miskito Cays and CCC in Nicaragua)

- Projects should be encouraged to have a planned approach to stakeholder participation while maintaining flexibility in their capacity to respond to different eventualities in the process (see Box 10).

CHALLENGE - Securing adequate legal, institutional and economic backing for CM in each MPA

Although participatory approaches to MPA establishment and management in the region are increasing, little progress seems to have been made in terms of policy and legislation development. Ideally a legal basis is needed that is flexible enough for local situations but specific enough in terms of the powers of local committees/councils. However, the example of Belize suggests that only a very loose framework permitting public participation may be adequate provided that local institutions are inventive and keen on implementing CM and that government supports or at least does not actively oppose the concept.

CM is a long process requiring relatively high start up costs but also some long term commitment in advice to, and running expenses of, CM institutions. At the outset due consideration should be made to these long-term requirements including the policy and economic aspects.

OPTIONS FOR ACTION AND ADVICE

- Conservation organizations could usefully consider carrying out analysis of the legal and policy requirements for each nation in the region. Given that solutions may not necessarily be legal but also social, institutional or anthropological the team should comprise social and anthropological specialists as well as legal.
- Donors and support agencies need to consider the long term aspects of CM and design for self-sufficiency or long-term support.

CHALLENGE - Building the appropriate social capital in the implementing agencies and amongst local institutions and groups

The design and implementation of CM initiatives often suffers from the lack of social science and participatory process skills in management agencies and also often amongst the stakeholder groupings or CM institutions that develop (see Box 11: Panama). This social capital is often crucial to the success of

Box 11: A missed opportunity in Bocas del Toro,

Panama: In the context of Coastal Management attempts funded by Proarca-Costas five coastal villages (Ngäbe Indians) presented proposals to set aside sections of their fishing areas. These areas were described as “fish banks” to be left alone with no fishing activities but serving as emergency sources of food and as broodstock for other fishing areas. In effect the communities were proposing voluntary zoning including, usually hard to implement and enforce, no-take areas. The total area proposed surpassed that originally suggested in the ecological planning process.

Unfortunately the Ministry of the Environment officials were unable or unwilling to respond to this initiative, legal reasons given include the “impossibility of designating a common access area such as the sea as the “property” of a particular community. However it is also probable that a major factor was the officials incomplete understanding of the processes leading to successful achievement of conservation aims through community-based approaches as opposed to standard models of survey and protected area designation. Several years later [how many] the area is no the focus of uncontrolled development and it seems unlikely that comanagement approaches could prosper.

Source: Ricardo Soto

the enterprise and best results may be expected where it is strengthened or increased as part of the project.

OPTIONS FOR ACTION AND ADVICE

- Opportunities should be sought for improving the skills and capabilities of implementing agencies in the following areas:
 - Participatory techniques and facilitation
 - Participatory strategy and process design
 - Stakeholder analysis
 - Supporting or building local organizations and leadership
 - Passing on skills to local groups
 - Communication skills
 - Conflict management
 - Adaptive management
 - Ethnoecology (in some cases)
 - A general understanding of the dynamics of CM so as to avoid missed opportunities such as that in Bocas del Toro

- Seek opportunities to build local community social capital for example in:
 - Techniques for organizing and facilitating meetings consultations
 - Business and administration skills
 - Responsibilities or representatives and methods of reporting back to constituencies.
 - Obtaining information, working with scientists, communicating with other “neutral” support agencies.
 - Adaptive management

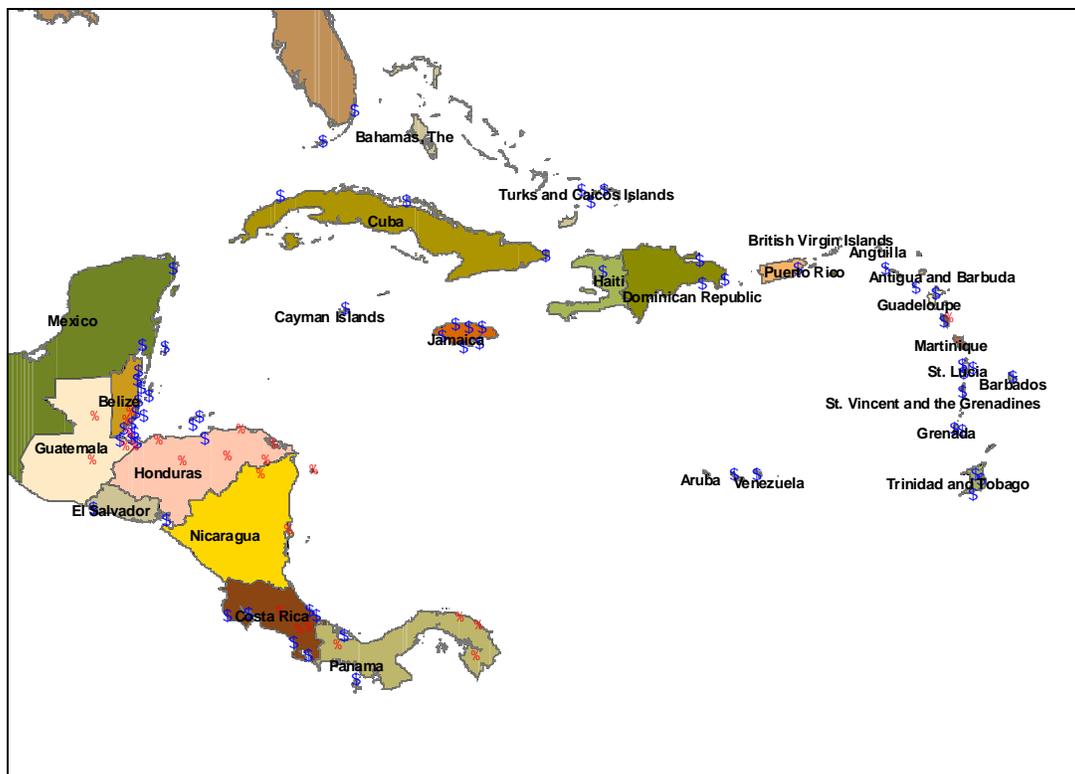
- Examine the possibility of implementing learning and capacity building activities such as:
 - Experience exchanges for resource users as well as MPA staff. Ensure that participants are adequately prepared to achieve the best results from such activities (e.g. reporting, interviewing, analysis skills) and report back to constituencies if appropriate.
 - Design workshop curricula and specific training for institutional staff in particular.
 - Networking: Existing networks should be examined to avoid the proliferation of new initiatives and to see if these can be supported or improved. Use a variety of communication media.

Annex 1 – Information sources

Sources of information and cases examined

A list of over 100 possible cases of coastal co-management (74) or indigenous managed areas (26) has been compiled based on published literature, contacts made through the Centre for the Support of Native Lands and the IUCN/CEESP Collaborative Management Working Group, such as the CMWG meeting in Cuba in December 2001 and the workshop organized by Solidar (2002) in San Jose, Costa Rica amongst others. Contact details have been obtained for most of the sites and contact actually established (as in replies) from about 50%. The CM workshop as part of the SMBC conference in San Jose allowed some further follow-up.

A number of regional reviews of co-management have been published such as McCarthy et al. [Protected areas in Central America UICN] 1997, Nuñez 2000 [Civil society participation in Pas of Central America], Luna 1999 [Comanagement of PAs Central America], Girot 2001 [Sustainable use of Natural Resources in Central America], Gutierrez et al. 2000 [Review of community wildlife management in Central America IIED], Barborak et al. 2002 [CM in PAs of the Mesoamerican Barrier Reef], Geoghegan et al. 1999 and 2001 [characterization of Caribbean Marine Protected Areas], I and II Jornadas Indigenas, 1999 and 2000, UAESPNN et al. 1999 [Contain case studies of indigenous peoples and territory in Mesoamerica]. A large number of individual cases are also available in the grey literature or in some cases published in local journals or other books. Many are superficial or rehashes of previously published results, locations of the cases pinpointed so far are shown in Map 3.



Map 3: Location of cases of marine and coastal co-management (triangles) and indigenous conserved areas (squares).

The indigenous management of natural resources is a special case dealt with separately. Firstly; there has been de facto community management of natural resources for millennia almost wherever Indigenous Peoples are still found in the study area. This makes thorough examination of the materials produced by the Centre for the Support of Native Lands mapping project vital; the geographic database should be up and running in the next few weeks. Secondly; information is much less readily available owing to the relative lack of attention paid to this field by researchers and the difficulties in communicating with leaders or residents in such remote areas.

Respondents and e-mail interviewees

Name	Country	Email
Adalberto Padilla	Honduras	mopawi@mopawi.org.hn
Amilcar Castañeda Cortez	Costa Rica/Peru	acastane@racsa.co.cr
Andy Caballero	Sint Maarten	naturesxm@megatropic.com
Concepción Guevara	El Salvador	claracon@hotmail.com
Deidamia Arjona	Panama	catsa01@cwp.net.pa
Emilio Ochoa	Ecuador	emilio@espolnet.net
Fernando Palacios	Nicaragua	comapdn@ibw.com.ni
Fernando Simal	Bonaire	marinepark@bmp.org
Geodisio Castillo	Panama	geodisio@yahoo.com
Greg Choc	Belize	kcbtol@btl.net
Guillermo Garcia	Cuba	ggarcia@ama.cu
Gustavo Arencibia	Cuba	gustavo@cip.fishnavy.inf.cu
James Barborak	USA	wcsfl@bellsouth.net
Johann Krug	Panama	jokrug@pananet.com
John Munro	British Virgin Islands	j.munro@cgiar.org
Jorg Grunberg	Guatemala / Nicaragua	grunberg@ibw.com.ni
Jorge Ventocilla	Panama	VENTOCIJ@tivoli.si.edu
Juan Carlos Sueiro	Peru	jcsueiro@cooperacion.org.pe
Juan Llanes	Cuba	jllanes@fec.uh.cu
Julia Fraga	Mexico	jfraga@kin.mda.cinvestav.mx
Kay Lynn Plummer	St. Eustatius	semp@goldenrock.net
Kelvin Guerrero	Republica Dominicana	ecoparque_pne@yahoo.es
Leda Menendez	Cuba	cenbio.ies@ama.cu
Leida Buglass	Republica Dominicana	leidabuglass@yahoo.es
Luis Tenorio	Costa Rica	luista@yahoo.com
Marcos Williamson	Nicaragua	uraccan@ibw.com.ni
Mario Gonzalez	Cuba	sibarim@cubarte.cult.cu
Marsha Kellogg	USA	kellogg@iconsprojects.org
Martin Bush	Haiti	Mbush@acn2.net
Miguel Martinez	Guatemala	mmartinez@flacso.edu.gt
Mito Paz	Belize	greenreef@btl.net
Patricia Lamelas	Republica Dominicana	lamelasp@hotmail.com
Patrick McConney	Barbados	patrickm@caribsurf.com
Pedro Alcolado	Cuba	alcolado@ama.cu

Peter Espeut	Jamaica	sweethantrini@hotmail.com
Rafael Puga	Cuba	rpuga@cip.fishnavy.inf.cu
Ratana Chuenpagdee	USA	ratana@vims.edu
Ricardo Soto	Costa Rica	Ricardo.Soto@avina.net
Robert Pomeroy	USA	robert.pomeroy@uconn.edu
Robin Mahon	Grenadines	rmahon@caribsurf.com
Stephen C Jameson	Jamaica	sameson@coralseas.com
Tania Crespo	Cuba	taniam@ama.cu
Valdemar Andrade	Belize	execdirec@bas.bz
Violeta Reyna	Guatemala	violereyna@yahoo.com
Wil Maheia	Belize	pgwil@btl.net
Yves Renard	Saint Lucia	yr@candw.lc

References and bibliography consulted

- Barborak, James R., Amanda D., Holmes, Gerald R., Mueller, y Jocelyn D. Peskin. 2002. Involucramiento Comunitario en el Establecimiento, Planeación y Manejo de las Áreas Protegidas Prioritarias GEF en el Sistema de la Barrera Arrecifal Mesoamericana. Informe final presentado al Banco Mundial por La Sociedad de Conservación de Vida Silvestre / WCS.
- Buss, Ralph A. 2001. Reserva de la biosfera Bosawas. Manejo participativo de áreas protegidas. 143 de Memoria (enero).
- Cajiao Jiménez, María Virginia. 2002. Guía Legal para reconocer el derecho de los pueblos indígenas al aprovechamiento y manejo de los recursos naturales en los territorios indígenas de Costa Rica. (Guía Legal No.2). Organización Internacional del Trabajo, San José, Costa Rica.
- Campbell, F. undated. Mesoamerica: Reviving Nature While Making A Living. GEF Notes.
- CCAD and IUCN. 1996. Reducción del efecto invademero mediante la limitación y absorción del CO2 en América Central. Propuesta Plan de Prevención y Combate de Incendios Forestales en América Central. Comisión Centroamericana de Ambiente y Desarrollo, Consejo Centroamericana de Bosques y Areas Protegidas, Unión Mundial para la Naturaleza, Oficina para Mesoamérica, San José, Costa Rica
- CCAD. 2002. Política centroamericana para la conservación y uso racional de los humedales. San José, C.R.
- Chapin, M. and W. Threlkeld. 2001. Indigenous Landscapes: A Study in Ethnogeography. Center for the Support for Native Lands. Arlington, ISBN 0-9723260-0-6.
- Chuenpagdee, Ratana, Julia Fraga, and Jorge Euan. Manuscript. Community's perspectives toward marine reserve: A case study of San Felipe, Yucatan, Mexico.
- Espeut, Peter. 2002. Community policing in the Portland Bight Protected Area, Jamaica. SPC Traditional Marine Resource Management and Knowledge Information Bulletin #14.
- GEF/UNEP 2000. Global Environmental Outlook 2000.
- Geoghegan, Tighe, Allan H. Smith, and Katy Thacker. 2001. Characterization of Caribbean marine protected areas: an analysis of ecological, organizational, and socio-economic factors. CANARI Technical Report N. 287. St Lucia.
- Geoghegan, Tighe, Yves Renard, Nicole Brown and Vijay Krishnarayan, 1999. Evaluation of Caribbean Experiences in Participatory Planning and Management of Marine and Coastal Resources. CANARI Technical Report. St Lucia.
- Giroto Pascal, 2001. Uso sostenible de recursos naturales vivientes en mesoamerica: Hacia una síntesis. SUI-Mesoamerica.
- Giroto, Pascal O. 2000. Raíz y Vuelo: El Uso de Recursos Naturales en Mesoamérica, San José: UICN-SUI.
- Gutierrez I, Ortiz N, Imbach A. 2000. Community Wildlife Management in Central America: A Regional Review. Evaluating Eden. EE DP 12 IIED Biodiversity Group. 78pp.
- I Jornadas indígenas Centroamericanas sobre tierra, medio ambiente y cultura, Mesoamérica, year 20, number 38, December 1999.
- IDB, 1998. Strategy for Coastal and Marine Resources Management in Latin America and the Caribbean. Bank Strategy Paper. Washington, D.C. December 1998 - N ENV-129.

- II Jornadas indígenas Centroamericanas. The Second Indigenous Conference on Land, Environment, and Culture in Central America, El Salvador, 26 July through 1 August, 1999.
- IWGIA, 1998. From Principles to Practice: Indigenous Peoples and Biodiversity Conservation in Latin America. International Working Group for Indigenous Affairs (IWGIA). IWGIA Documents no. 87, Proceedings of the Pucallpa Conference, March 1997. Copenhagen.
- Lemay, M.H. 1998. Coastal and Marine Resources Management in Latin America and the Caribbean. IDB Technical Study, Washington, D.C. December 1998.
- Luna, Rafael, 1999. El manejo de áreas protegidas en centroamérica. Memoria del Taller Centroamericano. Panama. (22-24 de Noviembre, 1999). PROARCA-CAPASAIID.
- Mack, Stephen A. 1994. Centro de Derecho Ambiental y de los Recursos Naturales [CEDARENA], Estudio Comparado de Legislación y Administración Mesoamericana sobre Áreas Protegidas.
- McCarthy, R. et al. 1997. Buscando Respuestas: Nuevos arreglos para la gestión de áreas protegidas y el Corredor Biológico en Centroamérica. UICN-CCAD-WCPA-PFA. 62pp.
- McCarthy, R., and A. Salas. 1998. Las áreas protegidas de Centroamérica. Área de conservación de bosques y áreas protegidas. UICN/ORMA.
- Mustapha, Nik, K. Kuperan, and C. Pomeroy. 1998. Transaction Costs and Fisheries Co-Management. Marine Resource Economics, (13) 103-114.
- National Geographic/Center for Support of Native Lands. 2002. Map of Indigenous Peoples and Natural Ecosystems in Central America and Southern Mexico. National Geographic Society, Washington DC.
- Native Lands. 2000. Indigenous Peoples in Central America: Organizations, Activities, and Priorities. Un-published report. Center for Native Lands, Arlington Virginia.
- Núñez Saravia, Oscar Manuel. 2000. El manejo y la participación de la sociedad civil en las áreas protegidas de Centroamérica. Fundación Defensores de la Naturaleza/The Nature Conservancy/PROARCA/CAPAS. Guatemala.
- Ochoa, E., S. Olsen, and N. Windevoxhel. 2001. Avances del Manejo Costero Integrado en PROARCA/Costas. Centro Regional para el Manejo de Ecosistemas Costeros, Ecocostas. Guayaquil, Ecuador, and University of Rhode Island, Coastal Resources Center. Narragansett, Rhode Island USA. 62pp.
- Plummer, Kay Lynn and Peter De Witt. In press. St. Eustatius Marine Park: A Case of MPA Problems and Solutions in the Caribbean. GCFI.
- Pollnac, R. B. and B. R. Crawford. 2000. Discovering Factors that Influence the Success of Community-Based Marine Protected Area in the Visayas, Philippines. Coastal Management Report #2229. PCAMRD Book Series No. 33. Coastal Resources Center, University of Rhode Island, Narragansett, RI, USA.
- Rijsberman, F. 1999. Conflict management and consensus building for integrated coastal management in Latin America and the Caribbean. Report to IDB.
- Solidar 2002. Seminario-Taller: Participación de las comunidades locales en el manejo de las áreas protegidas y la conservación de la biodiversidad: Instrumentos para la acción. VI Congreso Sociedad Mesoamericana Para la Biología y La Conservación, San José, Costa Rica. 19-20 de septiembre de 2002.
- Toledo, Víctor M., Pablo Alarcón-Chaires, Patricia Moguel, Magaly Olivo, Abraham Cabrera, Eurídice Leyequien y Amaya Rodríguez-Aldabe. 2002. El Atlas Etnoecológico de México y Centroamérica: Fundamentos, Métodos y Resultados. Etnoecológica Vol. 6 No. 8, 7-41 pp
- UAESPNN. 2001. Parques con la gente. Política de participación social en la conservación, avances 1998-2000. Bogotá, MMA-Uaespnn-GTZ.
- van't Hof, Tom. 1998. Social and economic impacts of marine protected areas: A Study and Analysis of Selected Cases in the Caribbean. Prepared in collaboration with The French Mission for Co-operation and Cultural Affairs in the Lesser Antilles and the Parc National de la Guadeloupe. CANARI Technical Report N° 252.
- WRI. 1998. Reefs at Risk: A map-based indicator of threats to the world's coral reefs. World Resources Institute, Washington DC.

Annex 2 - Ratifications of ILO Convention 169: 17 countries.

Country	Ratification date	Status
Argentina	03:07:2000	ratified
Bolivia	11:12:1991	ratified
Brazil	25:07:2002	ratified
Colombia	07:08:1991	ratified
* Costa Rica	02:04:1993	ratified
Denmark	22:02:1996	ratified
* Dominica	25:06:2002	ratified
Ecuador	15:05:1998	ratified
Fiji	03:03:1998	ratified
* Guatemala	05:06:1996	ratified
* Honduras	28:03:1995	ratified
* Mexico	05:09:1990	ratified
Netherlands	02:02:1998	ratified
Norway	19:06:1990	ratified
Paraguay	10:08:1993	ratified
Peru	02:02:1994	ratified
Venezuela	22:05:2002	ratified

* Relevant to the present study – 5 countries

Annex 3 - Questionnaire

ENGLISH

1. DETAILS OF AREA MANAGED

- a. Area of sea, reef, length of coast:
- b. Main conservation species/habitats:
- c. Main livelihood species/habitats:

2. STAKEHOLDERS AND PARTICIPATORY PROCESS

- a. Were all the appropriate stakeholders involved?
- b. Were the stakeholders involved at the right moment in the process
- c. Do you think that this has had a positive or negative impact on the results of the project, please explain?
- d. What (in general terms) were the steps in carrying out the project?
- e. What participatory techniques are or were regularly used?
- f. Would more or different techniques been useful?
- g. Are local communities able to take management decisions?
- h. What training and capacity building was carried out?
- i. What is needed?

3. LEGAL AND INSTITUTIONAL

- a. Is the national legal support for Comanagement adequate?
- b. How could it be improved?
- c. Are government staff adequately prepared to support CM initiatives?
- d. Are they willing to try and how could they be supported or induced?

4. ECONOMIC

- a. In general, would you say that the project represents a very cost effective approach for government:

Please give any estimates you can in terms of money, staff time, person days, in-kind contributions for the following investments and expenses of the process:

- b. Information costs: ascertaining stakeholder interests, baseline resource surveys, marketing information.

-“Community”:

-NGO:

-Government:

- c. Decision-making costs: participating in meetings, communicating results, coordination, policy formulation.

-“Community”:

-NGO:

-Government:

- d. Operational costs: monitoring and enforcement, resource maintenance, distribution of costs and benefits to participants

- “Community”:
- NGO:
- Government:

5. OVERALL

- a. Main obstacles in your process
- b. Main challenges in the process
- c. How well do you think conservation objectives have been met?
- e. How well are livelihood objectives been met?
- f. Are other benefits generated from the project (health, education, poverty alleviation etc.)
- g. Main lessons learned
- h. Main needs for future success

SPANISH

1. DETALLES DEL AREA MANEJADO

- a. Área de mar, arrecife, costa:
- b. Especies o habitats principales a conservar:
- c. Especies o habitats comerciales o de consume principales:

2. ACTORES Y PROCESOS PARTICIPATIVOS

- a. Se involucraron a todos los actores principales?
- b. Se involucraron a los actores en el momento adecuado?
- c. Afectó esto a los resultados del proyecto, favor explique?
- d. Que pasos principales se llevaron a cabo en la ejecución del proyecto?
- e. Que técnicas participativas se usaron?
- f. Hubiera sido útil usar mas o mejores técnicas participativas?
- g. Las comunidades locales actualmente toman decisiones de manejo?
- h. Que capacitaciones se llevaron a cabo?
- i. Que capacitación se necesita todavía?

3. LEGAL E INSTITUCIONAL

- a. Es adecuado el apoyo legal nacional al comanejo?
- b. Como se podría mejorar este apoyo?
- c. Está adecuadamente preparado el personal estatal para apoyar iniciativas de comanejo?
- d. El personal muestra interés en apoyar, como se podría mejorar este interés?

4. ECONOMICO

a. En líneas generales, se podría decir que el proyecto representa una opción muy costo-efectiva para el gobierno central?:

[Por favor estime lo mejor que pueda los gastos en cuanto a dinero, tiempo de personal, labor, donaciones de contraparte lo invertido en los siguientes aspectos del proceso]:

b. Costos de información: averiguar intereses de los actores, estudios ecológicos de base, información de mercado (turismo).

- “Comunidad”:
- ONG:

-Estatal:

c. Costos de toma de decisiones: participación en reuniones, comunicación de resultados, coordinación, formulación de políticas.

-“Comunidad”:

-ONG:

-Estatal:

d. Costos operativos: monitoreo y cumplimiento, mejoras al recurso, distribución de beneficios a participantes

-“Comunidad”:

-ONG:

-Estatal:

5. GENERAL

a. Obstáculos principales en el proceso

b. Retos y desafíos del proceso

c. Se están cumpliendo los objetivos de conservación?

e. Se están cumpliendo los objetivos de la comunidad en cuanto a bienestar o consumo?

f. Existen otros beneficios de este proyecto (salud, educación, reducción de la pobreza etc.)

g. Principales lecciones aprendidas

h. Principales necesidades para el futuro

Annex 4 - Survey of potential case studies of coastal and marine co-management regimes

Nombre	Lugar	País	Descripción	Part	I/C	Informa	Contacto y referencias
1. Sea egg fishery	Barbados	BA	Comanagement of Sea Urchin fishery	PDASB X?	C	P. McConn ey	
2. Bacalar Chico Marine Reserve and National Park		BZ	Public meetings and planning advisory committee in the early stages and the reserve was requested by local fishermen. No managed via a Policy advisory committee that includes fishermen and NGOs, cooperatives and landowners. Lack of funds hampers functioning. Marine part managed by the fisheries department	IPC?	C	Mito Paz, W. Maheia	Barborak et al. 2002, Isaias Majil (manager at Bacalar Chico) bacalarchico@hotmail.com, James Azueta (MPA coordinator) species@btl.net
3. Corozal Bay Wildlife Sanctuary		BZ	Nearby residents were consulted prior to designation but no local involvement in management so far	P?	C		Barborak et al. 2002
4. Gladden Spit/Silk Cayes Marine Reserve		BZ	Consultations were held with the local 5 communities prior to establishment and through the planning process. An NGO was set up whose board acts as the advisory committee.	PCDS X	C		Barborak et al. 2002
5. Glover's Reef Marine Reserve and World Heritage Site		BZ	Meetings and questionnaires prior to creation including zoning, Advisory Committee has been formed and meets sporadically but the reserve is far of shore and logistics and lack of funds are a problem.	PC?	C		Barborak et al. 2002
6. Half moon Caye marine reserve and Blue Hole National Monuments		BZ	BAS manage the marine reserve and NP. Community stakeholders are represented on the Local Advisory Committee and make recommendations for management	CP?	C	W. Maheia. Belize Adubon Society	Valdemar Andrade base@btl.net
7. Hol Chan		BZ	very small. managed by the fisheries department. some what autonomous. Hol Chan has a trust fund and an advisory committee that manages the funds	?	C	Mito Paz	Miguel Alamilla hcmr@btl.net,
8. Port Honduras Marine Reserve		BZ	Initial proposal came from community, the management plan was a collaboration between representatives of local communities and NGOs. An advisory board meets and includes local representatives. Manager and rangers are locals.	IPCDA B	C	W. Maheia TIDE	Barborak et al. 2002

Nombre	Lugar	País	Descripción	Part	IC	Informa	Contacto y referencias
9. San Pedro	Belize	BZ	Small reserve	?	C	W. Maheia GREEN REEF	Mito Paz email greenreef@btl.net
10. Sapodilla Cayes Marine Reserve and World Heritage Site		BZ	Prior consultation with users groups and workshops to update the management plan. Fisheries Dep. And a local NGO signed a CM agreement. Advisory committee includes NGOs village councils, fishing cooperatives and tour guides.	PCBX?	C		Barborak et al. 2002
11. Sarstoon-Temash National Park		BZ	No initial consultation caused local opposition. Gradually became more inclusive and an NGO (SATIIM) was formed which is now taking charge of participatory planning and aims at management.	PS	C I		Barborak et al. 2002 Greg Choc his email is kcbtol@btl.net
12. South Water Caye Marine Reserve		BZ	Local participation consisted of interviews prior to creation. Plan and committee have yet to be adopted.	I?P?	C		Barborak et al. 2002
13. Golfo de Honduras	Belice, Guatemala, Honduras	BZ GT HN	Proarca-Costas – programa amplio que incluyó aspectos de áreas protegidas alternativas económicas y marco legal	SB	C	Ochoa et al. 2001	
14. Marine Park System	Cayman Islands	CI	“Formal stakeholder participation mechanisms”	P?	C	Geoghegan et al. 2001	
15. Golfo de Nicoya		CR	Intentos de coordinación interinstitucional y comunal – algunos dicen fracasados.	?	C	R. Soto	
16. Golfo Dulce		CR	Primeros intentos de fomentar la participación de los principales actores locales en planificación hacia el Manejo integrado – foro de actores.	P	C	H. Govan	
17. PN Cahuita	Costa Rica	CR	Años de conflicto eventualmente resulto en un comité local y legislación mas favorable para el comanejo del parque. Se critica todavía un manejo un tanto pesado por parte del gobierno.	CBX?	C	M. Fonseca R. Soto	
18. PN Marino Ballena		CR	Un ejemplo de los conflictos creados por la imposición de un parque y la imposibilidad legal de permitir el comanejo de un bien de patrimonio nacional. Intentos mas recientes de establecer un comité de comanejo pueden ser prometedores.	C?	C	V. Solis, M. Fonseca	

Nombre	Lugar	País	Descripción	Part	IC	Informa	Contacto y referencias
19. RVS Gandoca-Manzanillo		CR	Algunos intentos de aproximación a la comunidad	?	C	Ochoa et al. 2001	
20. RVS Ostional		CR	Uso racional de fauna silvestre (huevos de tortugas), conflictos pero marco legal existente	BCX	C	IIED etc.	
21. Proyecto Sabana Camaguey		CU	zona costera norte de Cuba como parte del	¿	C		
22. Reserva Ecológica Siboney Juticí		CU	Tiene como objetivo el CM	¿	C		
23. Rincon de Guanabo	Cuba	CU	Organización de instituciones incluyendo municipalidad hacia el manejo sostenible de zona costera, planificación	P	C	M. gonzalez	
24. Puerto Parada, Isla Rancho Viejo e Isla La Pirraya, parte oriental de la Bahía de Jiquilisco	El Salvador	ES	Planificación de manejo de recursos pesqueros	CPA?	C	Oscar Molina	
25. Reserve Naturelle du Grand Cul de Sac Marin	French Antilles	FA	"Formal stakeholder participation mechanisms"	?	C	Geoghegan et al. 2001	
26. St. Barths Marine Reserve	French Antilles	FA	"Formal stakeholder participation mechanisms"	?	C	Geoghegan et al. 2001	
27. Lobster fishery	Grenada	GR	Attempts at fisheries comanagement		C	CAMMP	
28. Seine net fishery	Grenada	GR	Attempts at fisheries comanagement		C	CAMMP	
29. Asociación Chuiririn	Pacífico	GT	Co- manejo de manglares, tortugarios e iguanarios	?	C	V Reyna	
30. Comunidad?	Pacífico?	GT	un manglar en forma comunal, lo usan, tienen normas de exclusividad en su uso y lo administran y defienden en forma comunitaria	?	C	V Reyna	
31. Parque Nacional Punta de Manabique		GT	Proceso de planificación incluyó a representante de las comunidades.	PB?	C		Barborak et al. 2002

Nombre	Lugar	País	Descripción	Part	IC	Informa	Contacto y referencias
32. Parque Nacional Sarstún	Guatemala	GT	Comunidades no han tenido participación activa en la designación o planificación previa. Ahora se contemplan más actividades de extensión hacia las comunidades.	?	C		Barborak et al. 2002
33. Golfo de Fonseca		GT NI ES	PROGOLFO – actividades de resolución de conflictos, educación ambiental y legislación	?	C	Ochoa et al. 2001	
34. Cayos Cochinos		HN	Muchos conflictos y lecciones a aprender	?	C	R. Soto	
35. Omoa-Baracoa		HN	Incipiente	?	C		Barborak et al. 2002
36. Sandy Bay-West End Marine Reserve	Honduras	HN	?	?	C	M. Bush	Nelia Badilla Forest (nelia@socrates.berkeley.edu or nforest@igc.org)
37. Utila/Turtle Harbour		HN	Participación en la planificación y zonificación y un comité asesor propuesto.	P?C?	C		Barborak et al. 2002
38. Golfo de Fonseca			CODDEFAGOLF	IPS?	C	J.Varela	
39. Les Arcadins	Haiti	HT	WWF and UNESCO? Defunct.	?	C	Yves Renard	WWF?
40. Discovery Bay		JM	MPA	?	C	JL Munro	Norman Quinn, nquinn@uwimona.edu.jm
41. Montego Bay Marine Park	Jamaica	JM	Does not appear to be CM	?	C	M. Bush JL Munro	Stephen Jameson or Jill Williams (sjameson@coralseas.com or jill@n5.com.jm)
42. Negril		JM	MPA “Formal stakeholder participation mechanisms”	?	C	JL Munro Geoghegan et al. 2001	
43. Port Antonio		JM	MPA	?	C	JL Munro	

Nombre	Lugar	País	Descripción	Part	IC	Informa	Contacto y referencias
44. Portland Bight Protected Area		JM	MPA – Advisory Committee	PCA?	C	JL Munro Espeut 2002.	Peter Espeut sweethantrini@hotmail.com
45. Bahía Chetumal Santuario del Manatí?		M X	Versiones contradictorias sobre el grado de participación	?	C		Barborak et al. 2002
46. Bancos Chinchorro Biosphere Reserve		M X	Pescadores locales promovieron la creación de la reserva. Planificación muy participativa y un comité técnico asesor incluye pescadores y su presidente es pescador. Pescadores contribuyen un porcentaje de la pesca al programa	IPBAC X?	C		Barborak et al. 2002
47. Celestun Marine Protected Area	Mexico	M X	?	?	C	M. Bush	Eduardo Galicia (egalicia@coreo.uqr.oo.mx)
48. Reserva Marina "Actamchuleb" San Felipe, Yucatan		M X	Marine reserve created by community without mandate from government.	IAB?	C		Chuenpagdee et al. cooperativa pesquera de San Felipe Tel.986-86-22060
49. Parque Nacional Marino Xcalak		M X	Propuesto por la comunidad y ahora hay un comité técnico que incluye representantes.	IPC?	C		Barborak et al. 2002
50.	Sint Maarten, Netherlands Antilles	NA	MPA – may be some participation	?	C	JL Munro	Andy Caballero naturesxm@megatropic.com
51. Bonaire Marine Park	Bonaire, Netherlands Antilles	NA	MPA – "Formal stakeholder participation mechanisms"	?	C	JL Munro, M. Bush, Andy Caballero o Geoghegan et al. 2001	Tom v'ant Hof (vanthof@megatropic.com) or Kalli de Meyer at marinepark@bmp.org

Nombre	Lugar	País	Descripción	Part	IC	Informa	Contacto y referencias
52. Marine Park	Saba, Netherlands Antilles	NA		?	C	Andy Caballero	smp@unspoiledqueen.com
53. Marine Park	St. Eustatius, Netherlands Antilles	NA	No active participation although outreach activities	-	C	Plummer and de Witt in Press. Andy Caballero	semp@goldenrock.net
54. Plan de Manejo de Laguna de Perlas		NI	Planificación participativa pero ha llevado a la gestión participativa??	?	IC	II Jornada Indígena	
55. COMAP		NI	6 sitios con manejo entre instituciones, comunidades, ONGs y el estado. Cambios legales y políticos, capacitación y generación alternativa de ingresos.	PSBCX	IC	MARENA / COMAP	
56. Costa Miskita		NI HN	Proarca-Costas	P?SB	C	Ochoa et al. 2001	
57. Bocas del Toro		PA	PN Isla Bastimentos? Oportunidad perdida	P?S?	C	Ricardo Soto Ochoa et al. 2001	
58. Rio Bayano		PA		IP?	C	SMBC 2002	

Nombre	Lugar	País	Descripción	Part	IC	Informa	Contacto y referencias
59. Comarca Kuna Yala		PA	Manejo costero e indígena	PDCA BT	IC	IWGIA 1998, II Jornada Indígena, UAESP NN et al. 1999, G. Castillo	
60. Isla Canas		PA	Tortugas. Versiones contradictorias	BC?S?	C	UICN, Solis	
61. La Parguera	Puerto Rico	PR	Sea Grant College Program at the University of Mayaguez	?	C	Yves Renard	
62. Parque Nacional 63. del Este		RD	Ecoparques	?	C	P. Lamelas	Kelvin Guerrero ecoparque_pne@yahoo.es ecoparque@codetel.net.do
64. Parque Nacional Jaragua	Suroeste de la isla	RD	Grupo Jaragua	?	C	P. Lamelas	directora Ivonne Arias: jaragua@tricom.net
65. Santuario de Mamíferos Marinos Bahía de Samaná		RD	CEBSE	PCD?B A?	C	P. Lamelas L. Buglass	http://www.rabbitgraph.de/inwent/
66. Desbarras Turtle Watching Project	Saint Lucia	SL	nesting beach, and related conservation and tourism	?	C	Yves Renard	slhpt@candw.lc
67. Mankote mangrove	St. Lucia	SL	Charcoal and management	DB	C	Yves Rrenard	www.canari.org
68. Soufriere Marine Management Authority	St. Lucia	SL		?	C	JL Munro, M. Bush	Yves Errki Siirila (erkki.siirila@vyh.fi)) www.smma.org.lc www.canari.org

Nombre	Lugar	País	Descripción	Part	IC	Informa	Contacto y referencias
69. Sustainable Integrated Development And Biodiversity Conservation In The Grenadine Islands	St. Vincent and the Grenadines	SV	To develop a participatory integrated sustainable development planning framework for the area and to implement those components of the plan that are directly associated with uses of the marine resources and environment.			CaMMP proposal	
70. Tobago Cays Marine Park	St. Vincent and the Grenadines	SV	"Formal stakeholder participation mechanisms"	?	C	Geoghegan et al. 2001	
71. Northwest Caicos Marine Park	Turks and Caicos	TC	"Formal stakeholder participation mechanisms"	CD?	C	Geoghegan et al. 2001	
72. Princess Alexandra National Park	Turks and Caicos	TC	"Formal stakeholder participation mechanisms"	?	C	Geoghegan et al. 2001	
73. West Caicos Marine Park	Turks and Caicos	TC	"Formal stakeholder participation mechanisms"	?	C	Geoghegan et al. 2001	
74. Caroni Swamp Wildlife Sanctuary	Trinidad	TD	?	?	C	M. Bush	Contact Peter Bacon, UWI. (pbacon99@hotmail.com)
75. Matura,	Trinidad	TD	nesting beach, and related conservation and tourism	?	C	Yves Renard	
76. Florida Keys National Marine Sanctuary	Florida	USA	?	?	C	M. Bush	http://www.fknms.noaa.gov/staff/welcome.html june.cradick@noaa.gov

Nombre	Lugar	País	Descripción	Part	I/C	Informa	Contacto y referencias
77. Key West National Wildlife Refuge	Boca Grande Key, Florida	USA	?	?	C	M. Bush	Contact Tom Wilmers, Wildlife Officer, US Fish and Wildlife Service, Big Pine Key, Florida. (no email address).? E-mail: nationalkeydeer@fws.gov
78. Laguna de Tacarigua National Park	Venezuela	VZ		?	C	M. Bush	Jose Ramon Delgado (jrdelgadovzla@hotmail.com)

Annex 5 - Survey of potential case studies of indigenous management regimes

Nombre	Lugar	País	Descripción	Part	I/C	Informa	Contacto y referencias
1. Sarstoon-Temash National Park		BZ	No initial consultation caused local opposition. Gradually became more inclusive and an NGO (SATIIM) was formed which is now taking charge of participatory planning and aims at management.	PS	C I		Barborak et al. 2002 Greg Choc his email is kcbtol@btl.net
2. Aguacaliente Wildlife Sanctuary		BZ	Aguacaliente Management Team from 12 local communities. Objectives include promotion of community participation in planning	I?PB?	I	II Jornada Indigena	Rosaria Sanchez KCB kcbtol@btl.net , or Pedro Kukul pedro@btl.net
3. YCT yache land Trust		BZ	Community based land management	?	I		Bartolo Teul yct_ffl@btl.net or sagetol@btl.net
4. General	24 Indigenous territories	CR	Marco legal existente que apoyaria el manejo communal o comanejo de areas indigenas y sin embargo no se aplica.	X?	I	HG, TUVA	

Nombre	Lugar	País	Descripción	Part	I/C	Informa	Contacto y referencias
5. Parque Int. La Amistad		CR	Intentos de planificación territorial indígena pero ya no.	P?	I	H. Lazaro, L. Tenorio	
6. Reservas Extractivas de Madera Caida		CR	Uso comunitario racional de recursos forestales dentro de reservas extractivas/indigenas		I	HG, TUVA	tuvaadm@racsa.co.cr
7. Plan de manejo territorial	Territorio Indígena de Bajo Chirripó	CR	Participación de algunas comunidades en la planificación territorial. Descontinuado.	P?	I	UICN-ORMA, Ixacaav a	
8.	Dominica	D M	Reservation managed by the Caribs	?	I	JLM	Garnet Joseph Waikada@cwdom.d m.
9. Garifuna	C. Atlantica	GT	Pesca artesanal, manejo ??	?	I	V. Reyna	
10. kekchies	lago de Izabal	GT	pescar y cangrejar	?	I	V. Reyna	
11. mam	lagos o lagunas	GT	laguna de Chicabal, municipio de San Martin Sacatepequez, lugar sagrado	?	I	V. Reyna	
12. Maya-Q'eqchi	Reserva de la Biosfera Maya	GT	Posiblemente consulta y acuerdos con los PPII??	?	I	Georg Grunberg	
13. Q'eqchies y Poqomchies	Reserva de la Biosfera Sierra de las Minas	GT	Conservación y programas de desarrollo sostenible – Planificación participativa (DRP) y talleres de decisores	P?D?S?CA	I	I y II Jornada Indígena, Defensores de la Naturaleza	Cesar Tot - Defensores
14. tzutuhiles	lagos o lagunas	GT	Lago de Atitlan - mucho conocimiento de las fluctuaciones del nivel del agua dentro del lago y la forma de pesca	?	I	V. Reyna	

Nombre	Lugar	País	Descripción	Part	I/C	Informa	Contacto y referencias
15.	Plaplaya	HN	Protección comunitaria de la tortuga marina por una comunidad garifuna manejado por un comité comunal. Es el primer proyecto de protección de la Tortuga en Honduras	PCAB?	I	A. Padilla	
16. Brus Laguna	manejo y protección de la iguana verde	HN	participación de indígenas miskitos cazadores, estudiantes, maestros y líderes comunitarios, así como el gobierno municipal	P?	I	A. Padilla	
17. Golfo de Honduras		HN	experiencias de pesquería y protección del manatí con comunidades garifunas	?	I	A. Padilla	
18. Reserva de la Biosfera Río Platano	comunidad de miskitas y garifunas	HN	Proceso de planificación de la laguna de Ibans. Participación de comunidades y municipalidades en definición de objetivos etc	P?	I	A. Padilla, UAESP NN et al. 1999	Nota 1
19. Reserva de la Biosfera Tawahka Asangni	Departamento de Gracias a Dios	HN	comanejo tawahka Sumo-Tawahka. Títulos de 5100 Ha en manos indígenas de las 230,000 totales.	P?	I	AC, IWGIA 1998, II Jornada Indígena	
20. Reserva de la Biosfera Bosawás	(miskitos y Mayangnas),	NI		PAB??	I	AC	
21. Reserva Marina de Cayos miskitos		NI		?	I	AC	
22. Comarca Embera/Wounan – Parque Nacional Darien		PA	Iniciativa presentada en 1999, resultados?	P?	I	II Jornada Indígena	Indra Candanedo, billport@orbi.net

Nombre	Lugar	Pa is	Descripcion	Part	I/C	Informa	Contacto y referencias
23. Comarca Kuna Yala		PA	Manejo costero e indigena	PDCA BT	IC	IWGIA 1998, II Jornada Indígen a, UAESP NN et al. 1999, G. Castillo	
24. Comarca Ngäbe-Bugle	Chiriqui	PA	Autonomia y manejo	PDCA BT?	I		
25. Comarca? Wargandi	Kuna	PA	Propuesta de planificacion y conservacion	P?T?	I	I Jornada Indígen a	
26. Refugio de Vida Silvestre de Montaña Verde	Intibucá, Lempira y Santa Rosa	HN	Comanejo Lenca - Planificacion del manejo del area, negociacion con el gobierno, fortalecimiento de instituciones locales	PS?BA CX	I?	AC, I Jornada Indigena	
27. Plan de Manejo de Laguna de Perlas		NI	Planificacion participativa pero ha llevado a la gestion participativa??	?	IC	II Jornada Indigena ,	