

MPA in Labor: Securing the Pearl Cays of Nicaragua

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Abstract Implementation of Marine Protected Areas (MPAs) has always a step-zero, i.e., an initial phase when the idea is incepted, communicated and negotiated among stakeholders. What happens during this phase is likely to have an impact later on. If not done right, the management of the MPA may encounter problems at later stage that will be difficult to correct. Inspired by this working theory, this article describes the effort to establish the Pearl Cays off the Caribbean coast of Nicaragua as a protected area. This case-study illustrates the critical actions to be taken during step-zero, i.e., what needs to be considered and done before an MPA is formally declared. The area investigated consists of a number of small islands (cays) and coral reefs, fishing grounds and marine turtle nesting areas. Throughout history, the cays have played an important role in sustaining livelihoods of nearby communities. Although the idea of an MPA was originally conservation, the communities saw it as an opportunity to regain ownership and control of the cays. By Nicaraguan law, in order to establish protected areas, consultation and approval from local people is required. In the case of the Pearl Cays, this has proved difficult. The article demonstrates how MPA initiatives must sometimes relate to already ongoing complex social processes in the area where they are to be instigated.

Keywords Marine protected areas · Implementation · Stakeholder involvement · Governability · Nicaragua

Introduction

Marine protected areas (MPAs) come in many forms and may fall under different names such as parks, reserves and sanctuaries (Charles 2001; Pomeroy and others 2004). Typically, MPAs are created as an attempt to protect and conserve the function and integrity of marine and coastal ecosystems; as for example, by preserving endangered species (e.g., fish, turtles, and birds), biodiversity, and habitats (e.g., spawning/breeding grounds, mangroves, coral reefs). MPAs often have an explicit socio-economic purpose (i.e., maintaining or enhancing a living natural resource base for human use), and are also often perceived as a more effective fisheries management tool than other mechanisms that seek to reduce fishing effort and achieve sustainable yields (Lauck and others 1998; Shipp 2003; Hilborn and others 2004). The idea of MPAs has spread fast globally and is commonly perceived as a “simple yet elegant” (Anonymous 2006, p. 2) solution to resource management problems and ecosystem conservation; and an effective remedy to governing failure in fisheries and coastal areas (Pomeroy 2003). Indeed, MPAs are consistent with the present move towards ecosystem management regimes (Pollnac and Christie 2009; Rudd and others 2003).

The US National Oceanic and Atmospheric Administration developed guidelines in ‘How is your MPA doing?’ to assess MPA effectiveness (Pomeroy and others 2004). It offers a range of relevant ecological, social, economic and governance indicators (cf. also Himes 2007). However, a question that has not been sufficiently addressed, and one which is the primary focus of this article, is on the initial

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steps; i.e. those that are taken before MPAs are declared, including the inception and initial communication of the idea (see Chuenpagdee and Jentoft 2007). Although there is no guarantee that getting the first step right will guarantee success at later stages, it is still likely that MPAs which do not have a good start are prone to face problems at later stages that may be difficult to correct (cf. Chuenpagdee and Jentoft 2007).

As Hill and Hupe (2002, p. 4) state, the act of implementation “presupposes a prior act, particularly the “cognitive act” of formulating what needs to be done and making a decision on that.” It is precisely this “cognitive act” leading up to the actual declaration of MPAs that is of interest in this article. This prior act is what we call step-zero. The article builds on a case study of an MPA in the making on the Caribbean coast of Nicaragua, where the process is followed from its beginning when the idea is launched, positions are clarified and goals negotiated. Like Sumaila and others (2000), we consider this process as fundamentally political; as it must be assumed that stakeholders may have very different ideas and expectations about what the MPA is, what it is for, and how it should work. Stakeholders are inclined to exert particular powers in advancing and protecting personal interests even when these interests are in conflict with those of others, in some instances with the effect that the MPA process is inhibited. Bringing stakeholders together, building capacity through information sharing, learning interactively from their knowledge, forming group solidarity and creating collective identity are therefore necessary (Friedlander and others 2003; Gerhardinger and others 2009; Oracion and others 2005; Pietri and others 2009; Christie and others 2009). Since support from affected local communities is key to success, they must be convinced about the merits of the MPA (Dalton 2005; Jameson and others 2002; Halpern and Warner 2003). If not, they are likely to demonstrate resistance. How these processes develop from the very beginning may seal the fate of the MPA. If the initial steps are not done correctly, it could be difficult later to compensate for the initial mistakes (Evans 2008).

In this article, we describe the way the MPA concept was introduced and conveyed to stakeholders, and what responses the idea received among stakeholders in the Pearl Lagoon area. Before entering the field, we expected the situation to be ambiguous and fluid; and that problems and solutions might not yet have been coupled. We further expected that it would have taken some effort to clarify what an MPA is (or can possibly become), as well as what sacrifices are implied and what benefits may be expected. This article contributes to the MPA management research agenda, as for instance outlined by Christie and others (2003) and Jentoft and others (2007). Both research teams emphasize the need to examine the characteristics,

behaviours, preferences and knowledge of local constituencies and the governance approaches and mechanisms that are pursued.

The next section details how the data presented in this article was gathered, and the following presents the Pearl Cays, their ecosystem characteristics, human uses, and traditional and present ownership. In Section Four, the initial planning process relating to the MPA for the Pearl Cays is described, and we discuss how the initiative has been received in affected local communities. The discussion section draws on implementation theory (Pressman and Wildavski 1984; Palumbo and Calista 1990; Hill and Hupe 2002) to discuss what general lessons can be learned from this case study. In specific, we acknowledge the challenges of initiating MPAs as a conservation and management tool in a culturally diverse and complex society, where the local people have more at stake than conservation. We conclude that MPAs—and the management thereof—need to take into consideration the broader conditions influencing people’s lives.

Methods

Much of the information presented here was gathered during a two week investigation in February 2009, when the authors traveled to the Pearl Lagoon, visited five of the communities involved, as well as the actual cays designated for a future MPA. Based on a set of prepared “step-zero” questions (see appendix), the two authors interviewed government officials, a representative of an environmental group, university researchers, community leaders, and fishers using the cays. The authors also participated in a meeting between members of the MPA technical commission, government officials, and community leaders at the regional council premises in the regional capital Bluefields. Also attending the meeting was a group of representatives of the Tasbapauni community, who had remained skeptical to the idea of an MPA in the cays. In November 2009, in order to get an update of the situation, a return trip to Nicaragua was made, where the authors again met with SERENA (Secretaría de Recursos Naturales—Department of Natural Resources) at the Regional Government RAAS (The South Atlantic Autonomous Region—Región Autónoma del Atlántico Sur), which is responsible for leading the MPA planning process. Since 2009, we have also from a distance through e-mail and telephone kept informed about the development. It should be noted that the first author, as a representative of the URACCAN (Universidad de las Regiones Autónomas de la Costa Caribe Nicaragüense) Bluefields campus, is a member of the technical commission set up for steering the MPA project and that a part of the information included in

this article comes from work being done as part of this commission. The second author, for the last ten years, has been a frequent visitor to the area, working with URAC-CAN and various indigenous communities in the region.

The Pearl Cays

With their tall palm trees, gentle breezes, coral reefs and crystal clear blue waters, the eighteen Pearl Cays fit all the characteristics of a tropical paradise. The web-based magazine *International Living* (2007) describes the cays as “arguably the set of Caribbean islands still ‘undiscovered’, as it were. They are pristine gems, still isolated from the tourist hordes—a limited commodity. This makes them valuable... If you’re looking for a long-term investment, this is the place to come.”

Regardless of their touristic potential, the cays have always been an important source of livelihood for the Miskito, Garifuna and Creole people who inhabit the adjacent local communities. Outsiders, like the readers of *International Living*, would see a different potential. Thus, for one foreign businessman the Pearl Cays were too lucrative an opportunity to let go of. He was able to buy seven of the cays, the consequences of which took immediate effect: Access to those cays was blocked, signboards informing people that the cays were private property came up, and photographing them was banned. Fetching water on Water Cay is no longer free of charge, while armed private guards make sure these rules are upheld.

Eco-System

The Pearl Cays are located 30 kilometers to the east of the community of Pearl Lagoon in the Nicaraguan Caribbean Sea; comprising an insular marine area of 32,000 hectares or 320 km² (see map, Fig. 1). The cays are formed by coral reefs, and are part of the largest marine ecosystem in the central-western Caribbean from Belize to Panama.

While about two hundred people live on the cays during the fishing season, they are now exposed to considerable further anthropogenic pressures. According to the Mayor’s office in the town of Pearl Lagoon, 2,000 people visited the cays in 2007, of which 800 were there to fish. The number of outside foreign visitors has been growing during the last few years as the cays are favorable for sport fishing and eco-tourism.

Fisheries

There are fishers operating from nine of the cays. On these cays there is also a fish buyer stationed. The number of fishers residing there increases significantly during the

lobster season, which is at its peak in August-September. Altogether, according to the latest information provided by the Pearl Lagoon Mayor’s office (Alcaldia), 478 fishers (excluding divers) on 133 boats are fishing lobster from the cays. To protect the lobster from overfishing, a “veda” (fishing closure) is enforced, usually from March to July. Concerns have also been raised over certain fishing methods. Divers often use liquid Chlorine bleach to extract lobsters from their hiding places, a method which is also damaging to other fish and invertebrates that come in contact with the chemicals, and to the coral reefs (Ryan and Zapata 2003).

Although the actual levels are yet to be quantified, as statistical information on fish stocks is scarce or non-existent in this region, over the past years it has become increasingly clear to local authorities and those who fish in the area that marine resources (e.g., lobster, shrimp, and fish) are being severely over-exploited (González 2006). Fishers notice the change when they have to spend more time, travel longer distances, and use more sophisticated gears to catch what they caught before with much less effort. One fisher who was interviewed said: “We used to get big snappers around the cays, but now we need to go far out into the sea to get them.” (See also Christie 2000).

Local fishers blame the industrial fleet that comes from outside the Pearl Lagoon area, mostly from Bluefields, El Bluff and Corn Island (González 2006), and this has also been one of the major concerns expressed during the MPA consultancy process. Fishing pressure is also generated from inside the Pearl Lagoon communities as more and more local people now fish around the cays. Also, fishers from outside the Pearl Lagoon area are moving into the cay fishery. Part of the reason is a transition from agricultural and hunting activities to fishing (Hostetler 2000). Fishers criticize the regional and national government for ignoring what is happening around the cays. Regulations are inadequately enforced, and not highly respected, especially regarding mesh size. The National Institute of Fisheries (INPESCA), however, has a vast area to control with very limited resources. The hope of those initiating the MPA proposal is that it will help solve this problem.

Wildlife

The cays are the most important nesting site for the marine turtles in Central America; several species of which are now critically endangered (for more information about the situation with the turtles on the Caribbean coast, see for instance Lagueux and others 2005; Archbold 2008). The hawksbill turtle, which is the most imperiled species of them all, uses the cay beaches to lay its eggs and reproduce. Although a marine turtle monitoring program has been in

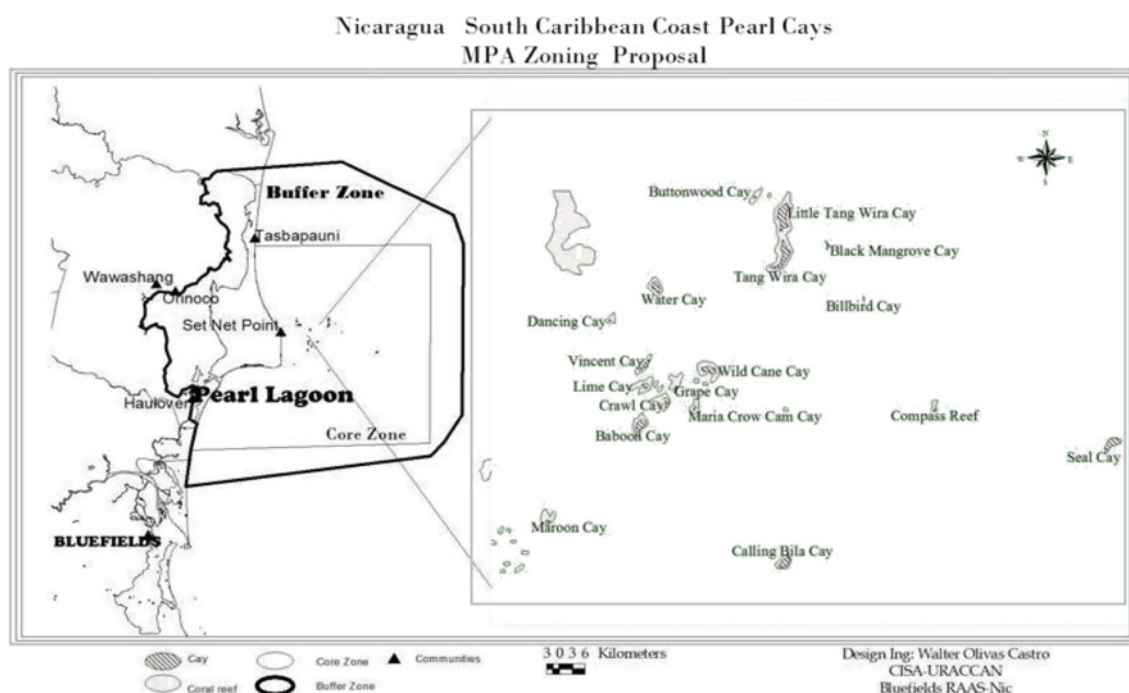


Fig. 1 Nicaraguan south Caribbean coast Pearl Cays MPA zoning proposal

operation since 1997, few scientific studies concerning ecosystem health and biodiversity in the Pearl Cays have been carried out.

The current use of the cays has caused environmentally irreversible damage, and the wildlife and coral reefs are now in peril (Ryan and Zapata 2003; Lagueux and others 2005). On the seven cays (Grape, Lime, Wild Cane, Baboon, Crawl, Vincent and Water Cay) acquired by the aforementioned businessman, buildings and swimming pools have been built, in some instances on top of turtle nesting sites. Extraction of sand is also causing damage to the beaches. Cutting of palm trees and mangrove and other fragile vegetation has added to the environmental damage. Alien plants and domestic animals have been introduced, together with artificial lights, septic tanks, electric generators, wired fences, and wharfs. A helicopter field is also in use in the area.

As these activities would seem to be squarely in contradiction with the Law of the Environment No. 217 and the Law of Environmental Crimes No. 559, a commission drawn from several government agencies (SERENA, MARENA [Ministerio del Ambiente y los Recursos Naturales – Ministry of Environment and Natural Resources], the attorney general, and members of the two regional universities URACCAN and BICU (Bluefields Indian and Caribbean University) visited the cays in January 2007 to inspect the situation. Its report, documenting the environmental damages, has not yet been acted upon and this lack of response creates frustration among local people.

Ownership

The controversy over the ownership of the cays started when the businessman, with the help of a lawyer in Bluefields acquired old titles to seven of the sixteen cays. Many of these titles belonged to people no longer resident in the Pearl Lagoon area, some of whom had long left the country, and in some instances, they were not apparently aware that they still owned the cays. Once the businessman acquired the cays, they were advertised for sale on the internet. It did not take long until they were sold, mostly to foreigners. According to one of our interviewees, the businessman bought the cays for a total sum of 70 000 USD, whereas the sale price for some of the islands was up to 2.5 million USD each.

What has happened with these cays has invoked strong emotions and resistance in Pearl Lagoon communities. Not only do people see this as a threat to their livelihoods, but also as a violation of their legal communal rights. Municipal authorities launched a legal and civil process to claim the cays back, but lost in lower courts. This released vociferous popular protests, with people demonstrating in Bluefields' streets in November 2008. After the court ruling, the two universities BICU and URACCAN, the NGO CEDEHCA (Centro de Derechos Humanos, Ciudadanos y Autónomicos—Center of Human, Citizen and Autonomic Rights), the territorial and regional government, and other institutions formed a team (steered by the BICU legal aid center—“Bufe Jurídico de BICU”) to investigate the legal

issues pertaining to the Pearl Cays. Their first action was to file an appeal, which at the time of writing this article, is still in the courts.

People in Pearl Lagoon are not sure if they really have the support of the government, despite three legal documents (The Nicaraguan Constitution (January 9, 1987); the Law of Autonomy (Law No. 28) (September 2, 1987); The Communal Property Regime Law for the Nicaraguan Atlantic Coast Autonomous Regions' Indigenous Peoples and the Ethnic Communities, Law No. 445) (January 23, 2003) all stating that the local communities have inalienable rights over their territories—that would include the cays. Article 32 of the latter law, for example, reads: “The property rights of, and historic occupation of, the indigenous and ethnic communities shall prevail over the titles issued in favour of third parties who have never possessed said properties and who have intended to occupy them since 1987.”

One would think that with this legislation, the people in Pearl Lagoon are strongly placed. However, Law 445 was enacted after the cays were sold to the foreign businessman, and after some of the other cays were also sold by members of the local community. This has seriously weakened the position of the local people in retrieving ownership of the cays. Also weakening their position is that the constructions taking place on the cays were authorized by a former mayor of Pearl Lagoon, who (historically) has an assumed right to unilaterally license the harvesting of natural resources within the municipality—although this authority has been challenged by Pearl Lagoon residents, for instance in the case of logging in communal forests (see Christie 2000, p. 150). The mayor at the time argued that the sale of the cays to the new owners would bring development, create 300 new jobs, and generate tax revenues.

What this would mean for a future declaration of the cays as an MPA is not fully clear. Communal property rights might be helpful, but are hardly necessary for a well-functioning MPA. The technical commission is therefore ready to go ahead with the MPA regardless of the ownership status of the cays and does not see the private purchase of the seven cays as a major hindrance. However, since the view of the communities and the lawyer representing them is that the cays have been illegally acquired, the new owners are not accepted to be bona fide stakeholders, and they have therefore not been consulted in the planning process so far. Some of the people we interviewed in the communities expressed the hope that if the conservation measures are strict, the new owners might prefer to leave.

Step-Zero

The MPA process started from the bottom up, which usually bodes well for community support of MPAs (Bjørkan

2009). The first time the MPA issue came up was in 2002 in a meeting of fishers from many communities along the Caribbean coast. The idea was to have a reserve from Rio Grande to el Bluff, with the Pearl Cays included. The main concern was then about resource decline. During the next couple of years several meetings were held, also with participation from environmental groups and experts, among them the US organization the “Costa Atlantica Communities and Conservation”, the World Conservation Society, and with experts from Mexico and the Caribbean. Several proposals were later submitted to the regional and national government. However, lack of financial support hindered the process from taking off. During this process, the private take-over of the cays, and the claims that they should be returned to the communities, became a prominent focus. The ownership question was also raised by the communal and territorial governments of Pearl Lagoon area with the regional (RAAS) government, in connection with the communal land demarcation process (which we will return to). At the regional government's requests, representatives of the national authorities came to Pearl Lagoon to discuss the issues with regional, territorial, municipal and communal authorities and with the local universities (URACCAN and BICU). Later, in a declaration in 2007, the president (Daniel Ortega) made a statement in support of returning the control of the cays to the communities. Table 1 summarizes the main events that have taken place in the initial MPA process, from when the idea was first introduced until the end of 2010. The table is based on interviews with two key informants who participated from the beginning and who are current members in the technical commission.

Led by the national Ministry of Natural Resources (MARENA) and the Department of Natural Resources from the Regional Government (SERENA), a technical commission for the MPA initiative was established consisting of representatives from the regional delegations of MARENA and SERENA, as well as URACCAN and BICU, WCS (World Conservation Society), the territorial government and the regional environmental attorney, as well as delegates from local communities. Law 445 and the Protected Area Decree 01/2007 (article 26) both require that in order to establish protected areas, consultation and approval are needed from the affected communities and user-groups. Thus, as of February 2009, more than thirty meetings and working sessions have been held between the technical commission and the affected communities and fishers using the cays. Many people had not heard of MPAs until the commission introduced the concept at the first meeting in their community. After two meetings in the twelve affected communities, all with the exception of one—Tasbapauni—signed an agreement to move forward, including the cay fishers.

Table 1 Step-zero for the Pearl Cays MPA

2002–2003	Idea launched at a meeting in Bluefields among fishers from the entire coast. Agreed to go for a reserve from Rio Grande to El Bluff, the Pearl Cays included. No direct follow-up.
2003–2004	Pearl Lagoon (PL) communal government and fishers made contact with Costa Atlantica Communities and Conservation (US NGO). Several workshops held, also with foreign expert participants.
2005–2006	Communal government informed regional branch of MARENA that they wanted the MPA established. Territorial government of PL basin and the PL communal government made several petitions to the RAAS government regarding the legality of the sale of the cays and the environmental damage done. No direct action made from the RAAS government. Territorial and communal governments raised the MPA issue with the RAAS authorities. MARENA raised the MPA issue in an environmental survey.
2007–2008	Territorial PL government made a legal claim on the cays a bigger issue (early 2007). The World Conservation Society (NGO) working on the conservation of the turtles in the Pearl Cays supports the MPA idea. Workshops and meetings held. Regional branch of MARENA and SERENA invited the central MARENA agency and the general environmental attorney to PL for a meeting with the territorial and communal government to learn about the legal claim on the cays. The central government of Nicaragua expressed support for the legal claim. Territorial and communal leaders and fishermen raised the MPA issue again. The central MARENA expressed support and proposed the establishment of an interdisciplinary commission to begin the process. Technical commission established with members from MARENA, SERENA, the two local universities URACCAN and BICU, WCS (World Conservation Society), the national police, the navy and the regional environmental attorney, as well as delegates from local communities.
2008–2010	Consultation and workshops held in all 12 PL communities. Approval and support to the process given by 11 communities. A law proposal for the establishment of the MPA drafted by the technical commission to be approved by the regional and central government. Further discussions with regional government and affected local communities. Approval and support to the process was given by the regional government. The law proposal was presented to the central government for approval.

Source Interviews with two key informants

A Hard Sell

Tasbapauni is the northernmost of the communities affected by the MPA, and is situated on a narrow strip of land between the lagoon and the sea (see map, Fig. 1). It was established by Miskito settlers from a community further north (Sandy Bay) in 1860 (Jamieson 1995). Today, it has a mixed Creole and Miskito population of about three thousand, for whom fishing and hunting are the most important sources of livelihood and income. Tasbapauni is known to assert its communal property rights. Nietschmann, a long time visitor to Tasbapauni, holds that the common perception of rights to land among the Miskito is that only their communities have the right to *wakanka*; that is, to govern the resources and territory (Nietschmann 1997, p. 205). According to Kindblad (2001) who also studied this community, “individuals are not allowed on their own account to sell pieces of land to outsiders or destroy resources that should benefit all” (Kindblad 2001, p. 204).

The conservation values and principles that underpin the MPA initiative and which are communicated to the people of Tasbapauni from the technical commission sound familiar

but also somewhat redundant, as people are fully aware of them already (Roe Hulse 2008). They have addressed the technical commission with some tough questions as to what the MPA might imply for their community. Will the rules of the MPA and the rules of the community support or contradict each other? (cf. Jentoft and others (2009) on the issue of “legal pluralism”). In Tasbapauni the issue is more complex: Although Nietschmann (1997, p. 199) may be correct in stating that most of the traditional Miskito management approaches are “bottom-up” and “based on community consensus”, Tasbapauni has for some time been a community in conflict with itself. As a consequence, it has been unable to speak with one voice, which has complicated the MPA consultation process.

Despite the extra effort made to convince the Tasbapauni community about the MPA, it has remained reluctant. “We are not negative to the idea as such, but we need to know what shoes we are putting our feet in. We are not an obstacle; we are just people who want to bring to the next generation what is our heritage,” said one of the Tasbapauni representatives at the meeting in the regional government in Bluefields on February 12, 2009. This statement echoed the claim made during our interviews with fishers and other

leaders in Tasbapauni during our visit there. What the Tasbapauni people insist on is to know more about what the MPA would mean *for them*. Since the exact rules and regulations, including the size of the reserve, as of November 2010, have not yet been determined, they are left with no definitive answer.

Treaty Rights

Tasbapauni is understandably in a very different position relative to the other Pearl Lagoon communities: In contrast to these other communities, Tasbapauni already has communal title for the cays that they are using, a right which was granted to them as part of the 1906 Harrison-Altamirano Treaty between Nicaragua and Great Britain (Hale 1994). The Harrison-Altamirano Treaty, which gave sovereignty over the coast to Nicaragua, established procedures for legal recognition of land rights that eventually led to the granting of 30 collective titles. In addition, it guaranteed “lands for all Indians who lived inside the boundaries of the old Mosquito Reserve” (Hale 1994, p. 48).

This communal property right, which the treaty determined as non-transferable, is still intact. Contrary to the seven southern cays which were acquired by the foreign businessman, Tasbapauni has kept the ownership to its cays. Neither do they intend to part with them. One interviewee said, “We will never sell out our islands. It will never happen.” Thus, for the people of Tasbapauni it is not clear what they will risk or gain from the MPA. While the Pearl Lagoon communities are hoping that the MPA will help restore rights and access to the cays, the Tasbapauni people on the contrary are afraid that the MPA will cause them to lose their rights and access. This fear is not without merit. Since Great Britain’s colonization of Nicaragua’s Caribbean coast around the mid 1600’s, there has been a constant struggle for ancestral lands and autonomy (Kindblad 2001; Henriksen 2008). The British presence along the Caribbean coast ‘ended’ in 1860 with the establishment of the Mosquito Reserve, which lasted until 1894 when the coast was annexed into Nicaragua (Von Oertzen and others 1990).

In the minds of the Tasbapauni people also looms the land demarcation issue. This matter affected the entire Nicaraguan Caribbean coast following the ruling of the Inter-American Court on Human Rights in 2001 on the *Mayangna Awas Tingni vs. Nicaragua* case concerning a timber-cutting license to a Korean company on indigenous land (cf. Acosta 2006; Anaya 2004). The ruling in favor of the Mayangna community subsequently led to Law 445, and demanded the Nicaraguan government to carry out communal land demarcation. With this still in progress, legal control over land in many areas, including the cays, is still uncertain. However, the people of Tasbapauni also

have issues with the demarcation process itself. During the MPA meeting in Bluefields on February 12, 2009, a Tasbapauni leader read out loud from the 2007 UN Declaration of the Rights of Indigenous Peoples and questioned: “Why do we need to demarcate when international law says that we already own it?”

Land Demarcation

The MPA for the Pearl Cays is not the first time the issue of protected areas has come up in this region. In the mid 1990s the Nicaraguan government declared the Wawashang natural reserve. Although the reserve (350,000 hectares) has not prevented local people from entering the area, they are now banned from exploiting its natural resources. But while accepting the reserve and respecting its rules, locals have witnessed the arrival of thousands of Mestizo peasants migrating from the Pacific side of Nicaragua and settling in Wawashang. A Tasbapauni leader expressed:

We are extremely troubled with what is happening to our land. We see that we are being abused. The land is being taken away from us. Eighty percent of our land is now occupied by other people, and there is no action from the government to stop it. That is also why we are worried about the cays.

The encroachment on communal land is causing widespread concern throughout the entire Pearl Lagoon basin, but it is far from new. Gordon (1998, p. 65) quotes from a letter dated April 1911 from people of Bluefields and the Rama Indians complaining about the “Spaniards” taking possession of their land and turning it into pastures, and mentions the Pearl Lagoon specifically.

The “agricultural frontier”, as the settling area of the Mestizo campesinos is called, now extends into the hinterland of all the Pearl Lagoon communities. The immigration seems to be out of control, and the situation is quite tense (Henriksen 2008). Yet, the police and the army are reluctant to take action, and there is fear that confrontation may become violent. As of November 2009, the titling of communal land in the Pearl Lagoon area, including the cays, is still pending. The only territory titled in RAAS is the Rio Grande delta, which has several indigenous Ulwa and Miskito communities (Koskinen and others 2008).

Trust or Mistrust

In our interviews in the communities, people frequently expressed doubt as to whether the government can be trusted, stating:

We have a hundred year long experience with corrupt government in this country.

We do not see the government comply with anything in relation to the indigenous community.

The government is playing a game and those Spaniards are taking eighty percent of our land.

The government is behind the agricultural frontier.

It is a government policy pressing them (the Mestizo peasants –‘Spaniards’) to come and settle here.

The government is breaking the rules themselves.

The government just makes our life impossible.

Interestingly, for some of the people interviewed this lack of confidence in government leads them to suggest that the universities should run the MPA process. (See also Christie (2000) on this point).

This mistrust should also be seen against the backdrop that historically, Nicaragua has been a divided country; the political power was in the west, dominating the Caribbean region in the east—where the natural resources were up for grabs (Henriksen 2008). The Sandinista revolution in 1979 largely confirmed the skepticism among many “costeños” towards the Pacific political and economic elite. Many members of the indigenous communities on the coast, including people from Tasbapauni, joined the contra forces in the civil war that followed. However, one outcome of the strife and emblematic of the problem, was the 1987 constitutional amendments that gave the coast regional autonomy with the formation of RAAS (Region Autónoma del Atlántico Sur) and RAAN (Region Autónoma del Atlántico Norte) (Frühling and others 2007).

The general lack of trust is also nourished by what locals see as government’s negligence about what is happening with the Pearl Cays. They are discouraged by the lack of response from higher authority when complaints have been filed. In conversations with local people, it is enough to just mention the word cays and they will start expressing their frustration, which has reached a level where some are contemplating the possibility of taking the law into their own hands. As one of the Pearl Lagoon leaders expressed in an interview, and which he repeated at the February 12 meeting: “We want to proceed according to the law, we do not want to stir violence, but if we cannot get back what is rightfully ours, we will if necessary go out there and take them back.”

Discussion: The Challenge of Step-Zero

Hill and Hupe (2002, p. 1) hold that “implementation inevitably takes different shapes and forms in different cultures and institutional settings.” MPAs are no exception; they are rarely introduced in a political, social, institutional or cultural vacuum—or in a “terra nullius.” Indeed, ignoring the local and institutional settings when implementing MPAs is a likely recipe for failure (Christie and others

2009). In an ethnically and culturally diverse area such as the Caribbean coast of Nicaragua, which not too long ago was caught up in civil war and since then has struggled to realise a regional autonomy granted to them within the country’s constitution (González 2008), contextual and situational factors specific to the area raise significant issues that influence the installation of the Pearl Cays MPA.

Those in charge of the MPA planning process have been frustrated by all the time and effort it has taken to get all parties on board. Still, they also understand the reluctance that they have met in the communities. As one commission member admitted: “The position of the Tasbapauni community is fair. They have reason to be skeptical. The reserves have after all been much of a failure so far.” Judging from implementation theory, the process should not be expected to be straightforward. Rather it is prone to be ambiguous, messy and tedious. The members of the technical commission seem to be well prepared for this. The same commission member stated: “If the community (Tasbapauni) says it needs more time and information, it must get it. We are after all dealing with people, not trees.” The commission has been in operation since 2007, and the expectation was that the planning process would be finalized before the end of 2009. However, the consultancy process was assumed to take no more than six months, which has proven to be too optimistic. During the last part of 2009, the technical commission also decided that it would, from an ecological point of view, be wise to include the entire Pearl Lagoon basin into the buffer zone of the MPA, rather than just the outer coast line as originally planned. The meetings with the communities have therefore continued throughout 2010, and the MPA is still not declared. The commission has also met with the regional authorities to further build the support for the MPA. What remains is to get the central government’s approval and to develop a management plan. This is not likely to happen until 2011.

Thus, as in the Pearl Cays MPA case, the step-zero is an incremental process, in which flexibility and agility are required as new actors are drawn in, additional concerns brought forward, and unexpected problems often emerge. The step-zero is the point when the problem to be solved needs to be fully defined. It is when stakeholders and decision-makers must agree on what the MPA is about and not about, and whether an MPA is the best solution to the problem as it is perceived by stakeholders. In many instances, the Pearl Cays being an exception, it seems as if the solution comes before the problem (cf. Degnbol and others 2006). Sponsors of MPAs, like those of the environmental movement or the research community are often already convinced about the merits of MPAs, even prior to step-zero. For affected communities, user-groups and other stakeholders, on the other hand, the perspective may be quite different. For them, the MPA may be a new concept, which does not necessarily address their concerns as they

see them and as they believe they should be handled. Therefore, it is essential to concentrate on the questions and interests of all stakeholders during the pre-implementation process, rather than hurriedly imposing a predetermined plan (cf. Agardy and others 2003; Walters and Butler 1995).

In the case of the Pearl Cays, people have huge stakes. The MPA does not only implicate their livelihoods, they see it also in relation to their ancestral rights and existence as distinct indigenous and ethnic peoples. This is not only the view of the Miskito, but of the Garifuna and Creole as well. It is therefore not surprising that people in Pearl Lagoon would draw on legislation pertaining to human rights and indigenous peoples when they discuss the MPA, as the future of the cays is also their own.

Cognitive Act

From a distance, MPAs may seem like a simple and obvious solution to conservation problems. The insiders' point of view is not necessarily as straightforward. Rather, to them, the MPA involves conflicting issues, legal complications, and sacrifices that they would have to make. Their worries cannot be ignored but must be taken seriously. If they are not dealt with from the outset, they may haunt the process at a later stage. But the process cannot be dragged out either. Shortcuts may prove detrimental, but lack of momentum can inhibit progress and create disillusionment.

A way to deal with the questions that trouble stakeholders while keeping up the enthusiasm is to make the process into a learning exercise; "a cognitive act" as Hill and Hupe (2002) talk about, that involves stakeholders in an interactive process (Himes 2007). Teaching about MPAs can be stressful, particularly when progress is hampered by new stakeholders who keep coming in and need to be taught the basics. But for those involved, learning is also a positive experience; it is personally enriching and collectively strengthening. It builds both human and social capital. Learning about an MPA before it is declared, when a proposal is still being entertained, and when it is still at an experimental stage, is in any case better than learning the hard way, after it is a fact, when mistakes have been made and cannot be easily reversed. But learning must be an ongoing process, as MPAs must be adaptive systems. It does not stop after step-zero.

Local Perceptions

In Pearl Lagoon, some communities see the MPA as a way to restore communal ownership and control of the islands. For them, the MPA is primarily an issue of territoriality. Conservation is further down on their list of concerns. They

are aware of the legal complications involved, but still they are hopeful that "one of these days, our dream will come true", as one interviewee put it. Although fishers agree with this view, they do not necessarily support the MPA strategy, as they fear that the MPA would ban them from using the cays as fishing base. Instead, they rely on the demarcation process to bring the cays back. For the people from Tasbapauni, the MPA represents the prospect of losing rather than gaining control, as they fear that the MPA would mean that the government would confiscate the cays and exclude them from using them. Those in favor of the MPA, on the other hand, have been criticized for being against economic progress. This was also what the previous mayor of Pearl Lagoon claimed when he welcomed the new owners of the cays. In an area like Pearl Lagoon, where unemployment and poverty is widespread, "and the focus of attention is meeting the immediate needs of the day, not the long-term, seemingly abstract needs of resource management" (Christie 1999, pp. 347–348), this argument easily hits home.

A major step-zero challenge is for individuals and for the communities to clarify what the MPA is all about, and perhaps even more important, what it is not. For instance, an expectation expressed in the meetings with the fishers and the communities is that it will involve a no-take zone, and that they will be expelled. There is a fear that the other parties may have a hidden agenda, and that what they say is not really what they want. Since building trust among involved parties is essential during step-zero, then transparency and authenticity are a must.

The territorial claim advanced by the Tasbapauni community in the demarcation process has made the MPA issue more sensitive among the involved parties. The MPA is not only a contentious issue between the government and the communities, but also between the communities. It is, however, quite remarkable that after only two meetings, eleven out of twelve communities signed the agreement to go ahead with the MPA. This would indicate that the commission has done a good job convincing people about the advantages of the MPA. It may, however, also suggest that people do not care all that much, because they consider the ownership of the cays as a lost cause, so that whatever the government proposes can only improve the situation as it currently stands. Both factors seem to be at play here. What is also likely is that local people trust the technical commission since it is made up of people who do not represent the government, and many members (including some representing the government), were born and raised in the local communities, and still have family there. People tend to trust their own. It matters who is initiating and leading the MPA process, and who is supporting it (Chuenpagdee and Jentoft 2007). Sometimes the messenger is as important as the message. Even if people in Pearl

Lagoon mistrust the government, they may still have faith in the people representing them in government.

The Way Forward

Insufficient funding has so far been a problem. In some instances, meetings have therefore had to be cancelled after they had been convened. It has also happened that the commission forgot to announce the meeting on the radio or information did not reach the communities in time. With the lack of a coastal road system, travel has to be made by boat (panga). Cancellation or delays are understandable, but it does not leave a good impression within the communities.

A main hindrance to a swift step-zero is that demarcation has stumbled. If it had been possible to separate these two processes and also to reduce the MPA to a conservation issue, a smoother pre-implementation process might have been possible. But since both processes harbor the ambition of communal ownership and control, the two processes are closely intertwined. In the February 2009 meeting at the regional government office, the argument was made by a SERENA representative that the MPA process is separate from the property rights issue and the demarcation process: “MPAs are a management tool, the design of which should run its own course; and we may well have the MPA without the communal title.” But even while everyone can see that the two are linked, they seem to agree that the lack of communal title should not be allowed to inhibit MPA formation.

An option discussed within the technical committee is to go ahead and establish an MPA without including the cays that the Tasbapauni owns, at this point (yet keep the option open for including them at a later stage). While the Tasbapauni community is still reviewing the process, they sent a letter to the director of SERENA dated February 20 2009 stating:

We are aware and concerned about the necessities and dangers that are currently threatening our environment and the biodiversity. As a Communal Government, we would like to request the opportunity to undertake several environmental education programs on the need to raise awareness in our youth about the need to preserve and manage in a more sustainable way our Natural Resources as a primary task to develop our community.

For this reason our Directive Board proposes to create co-management of two of our communal cays which are located in the southern part of the community: Big Thawira and Little Thawira. This would serve as a pilot program to better the understanding of the Marine Protected Area project. (Authors’ translation from Spanish)

The technical commission is not against this proposal, as it would also make it possible to separate the demarcation process and the MPA process. What the Tasbapauni leaders are talking about is co-management, not a property right, as the latter for their cays is an already settled issue. This management right must be sanctioned by the government and could be instigated on short notice; whereas the property rights to the cays that were lost remain in the courts and are awaiting the demarcation process. Should those two processes fail to return the cays, the MPA would have regardless served its conservation purpose.

Conclusion

This case study illustrates the complex and challenging governance issues that MPAs sometimes raise, both from the perspective of local communities and for MPA planners and promoters (Kooiman 2003 and Kooiman and others 2005). As frequently pointed out in the research literature, in such a situation, involving local communities and resource users is essential, both from an instrumental and an ethical point of view. That would also be the case from the “legal pluralism” perspective when principles and rules of the state and those of indigenous communities need to be harmonized as in the case of the Pearl Cays (Jentoft and others 2009; Cinner and Aswani 2007; Glaser and others 2010). But that may not be sufficient to guarantee consent and support unless one from the very beginning of the planning process is willing to respect, listen and learn about the many related concerns that communities have with regard to the MPA. For local people, such as those of Pearl Lagoon, MPAs are often about other more urgent matters than just conservation. These issues should not be overlooked or postponed. Neither should they be rushed. Paying attention to these signals at the early stage is central to step-zero and to successful implementation at a later stage (Chuenpagdee and Jentoft 2007).

MPAs do not always represent a win-win solution. Local communities may have much to gain, like those of the Pearl Lagoon area—for whom the MPA may be a means to also restore control of the cays. But local people may also have things to lose, as in the case of Tasbapauni. MPAs are, after all, intended to limit human activities and minimize impacts on ecosystems (Mora and others 2006). Neither should local peoples’ ambivalence necessarily be interpreted as anti-conservationist. Based on their own experiences and ecological knowledge, they may have reasons to believe that they are themselves better equipped to manage resource uses than government.

In Nicaragua, people on the Caribbean coast would naturally regard MPAs in a historical and political context of external domination, exploitation and violation of rights

to land and natural resources. MPAs cannot therefore come with a narrow conservation agenda or be implemented only as a practical resource management instrument. MPA planners need to take into consideration the broader conditions influencing people's lives, many of which are highly contextual. This argument is also consistent with the findings of Christie and others (2009) on MPA success factors in the Philippines. Local people need to see that those who champion the MPA are also interested in these other issues. If not, the community support that the research literature claims is essential to success (Kelleher and others 1995) will not materialize or will erode quickly. Then the MPA project will have been lost before it is launched.

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Appendix: MPA Assessment Questionnaire: Step Zero

(Source: GOBAMP Project: <http://www.pescatur.org/pgobamp.html>)

- Where did the idea about the MPA come from, in what form was it communicated and to whom?
- Who initiated the discussions about the MPA? Were these discussions formal or informal?
- Who participated in these initial discussions, and what were the issues raised? Who supported the idea, and why? Who were against it, and why?
- How many meetings/discussions took place before an agreement was reached? How much time did the whole process take?
- What preparations were carried out before the MPA was implemented? For instance, were there seminars/workshops held, were experts and local stakeholders

consulted, were agreements signed, were capacity assessed, and were feasibility studies conducted?

- How was the situation in the fishery when the idea came about? For example, was the fishery in crisis? Were there conflicts between user groups?
- In hindsight, what are the important lessons that could be drawn from the process? What proved to be a good starting move, and what should have been done differently?
- What other elements and issues that should be considered before the MPA is implemented?

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