

## Organising to Protect: Protecting Landscapes and Livelihoods in the Nicaraguan Hillsides

Helle Munk Ravnborg

Danish Institute for International Studies, Strandgade 56,  
DK-1401 Copenhagen K, Denmark

E-mail: hmr@diis.dk

---

### Abstract

Social science literature on protected areas (PAs) has hitherto focused mostly upon how PAs have been designated at the expense of the interests of people living in and around the PA and how this has often resulted in conflict. However, there is a growing recognition that this dichotomised perception does not always adequately capture what is taking place in relation to PA establishment and management. Internal as well as external interests, *viz-à-viz* PA establishment and management are much more diverse and complex, and have to be understood in a wider context of interests and strategies not solely related to issues of conservation. This article reports a case from Nicaragua of small scale farmers struggling to have their area, Miraflor, declared a PA. Adopting a political ecology perspective, the article explores the underlying motives for this apparent paradox of farmers wanting to have their land recognised as a PA and thus accepting the potential restrictions on land use this entails. This article analyses how the formulation of the management plan for Miraflor as a PA, became the ‘arena’ for negotiation and alliance building between different segments of competing land users in Miraflor ranging from the virtually landless poor to the landed small scale farmers to the resourceful, largely absentee landowners; and how national and international external institutions—knowingly or not—were drawn into and took part in this negotiation. Hence, this article serves to illustrate the importance of recognising that this key instrument in PA management—the management plan—is much more than a technical document building on sound ecological principles. The issue at stake is not only protecting a landscape, but, perhaps more importantly, protecting livelihoods.

**Keywords:** landscape, livelihood, PA, management plan, political ecology, poverty, Nicaragua

---

### INTRODUCTION

SOCIAL SCIENCE LITERATURE on protected areas (PAs) has hitherto focused mostly upon how PAs have been implemented at the expense of the interests of people living in and around the PA (Adams & Hutton 2007; Büscher & Wolmer 2007). As stated by Ghimire and Pimbert, the establishment of PAs has ‘customarily led to extensive resource alienation and economic hardships for many social groups’ (Ghimire & Pimbert 1997: 2), and thus has often caused conflict. In recent years, such conflicts have nurtured the increasing recognition of the need for more people-centred approaches to the planning and management of PAs. As an example, the World Conservation Union’s (IUCN) World Commission for Protected Areas (WCPA) states that ‘...successful management of protected areas requires the support and involvement of local

people [...] WCPA advocates approaches to protected area management which involve working for, with and through local communities, not against them’ (IUCN 2001: 8). Desirable as this may be, the initiative to establish PAs is, however, still assumed to originate from outside the area itself, either nationally or internationally.

This, though, is not always the case. This article analyses a Nicaraguan example of small scale farmers struggling to have their area, Miraflor, declared as a PA. Exploring the motives underlying this struggle, this article proposes that having their region declared a PA and thus potentially restricting the ways in which it can be used, was conceived by small scale farmers as a strategy to make the region less attractive to resourceful people who had started to buy up land in the area. Through their organisation, the Union of Agricultural Cooperatives of Miraflor (UCA-Miraflor), landed small scale farmers ini-

tially succeeded in having Miraflores declared a PA, and furthermore in having it declared within the category of a 'protected landscape'. This category explicitly aims at protecting the landscape features *produced* through the interaction of people—in this case small scale farmers—and nature. Nevertheless, as the article describes in more detail, what started out as their strength—their strong organisation—ended up becoming their weakness. Their organisation, the UCA-Miraflores, collapsed and the finalisation of the management plan was left to a strategic alliance between the emerging group of resourceful farmers and the tacit support from the virtually landless poorest segment of the population of Miraflores. Discursively, this alliance was based on and gained strength from the widespread narrative of poverty as the major cause of environmental degradation. With the collapse of the UCA-Miraflores, the landed small scale farmers lost their strong voice, and their ability to mobilise external support and to thus build strategic alliances in support of their strategy to contain the emerging resourceful landowners' increasing control of Miraflores.

The article falls into five main sections. Following this introduction, the second section briefly describes the methodology for the field work upon which this article is based. The third section introduces the context in which the case takes place, while section four—the primary section—provides the results of the research by describing and analysing the process from declaration of Miraflores as a PA to the finalisation and approval of the management plan. The final section concludes by discussing the implications of the strategic positioning of the various involved actors in terms of landscape conservation in Miraflores. It also stresses the importance of recognising that a PA management plan, often considered a key instrument in PA management is much more than a technical document building on sound ecological principles. Failing to recognise this may significantly hamper the quality of the management plan and limit its ability to identify and address the actors whose practices are in conflict with the environmental objectives motivating the protection. This, in turn, may undermine the entire concept of local participation in PA management (Murray 2005).

### METHODOLOGY

This article is based on three periods of intensive field work carried out in Miraflores and in the city of Estelí during late 1999, from late 2000 to April 2001 and again from February to April 2004; and on frequent but briefer visits to the area and engagement with actors throughout the period up to 2006. The field work consisted of two parts. The first part aimed at gaining an insight into the organising practices, as well as the underlying motives, of the various actors' involved in the process leading to the declaration of Miraflores as a protected landscape and

the negotiation of a management plan for the area. This part comprised semi-structured and conversational interviews conducted with key actors from ministerial to the local level, in addition to participation in meetings and workshops held throughout the period to discuss the protection status of and the management plan for Miraflores. The second part of the field work aimed at examining the relationship between household poverty level on the one hand, and management of natural resources and organising practices, on the other. This was done through a questionnaire-based survey administered to a sample of 306 households drawn as a two stage random sample. First, 13 communities (a third of the total number of communities in Miraflores), were selected from the four micro-regions constituting Miraflores. These were drawn as a stratified random sample after taking into consideration the geographical distribution of the population according to the micro-regions (Ravnborg 2002). As the second step, a random sample of households was drawn from these 13 communities on the basis of complete lists of households living in the communities. This means that absentee landowners were *not* included in the survey and thus the survey data does not provide a full picture of issues such as land distribution. The number of households sampled from each community was determined on the basis of the community's share of the total population from the 13 communities. The quantitative information provided on the characteristics of families of Miraflores in 2001 thus stems from this questionnaire survey, unless other sources are indicated.

### LIVELIHOODS AT RISK

Since the beginning of the 1990s, many rural families in Miraflores, as elsewhere in Nicaragua (Broegaard 2005), have felt at risk of being squeezed out of or have actually given up farming.

Miraflores is one of the areas where in the 1980s significant portions of land were redistributed as part of the Sandinista land reform and where severe fighting took place as part of the civil war. Many families, who received land in Miraflores during the 1980s, either lost or sold their land during the 1990s (Lacayo & Montalvan 2000). During the latter part of the 1980s, the economic crisis escalated with inflation rates reaching more than 33,000 percent in 1988 (Enríquez 1997). There was also a sudden removal of subsidies on agricultural credit and inputs in 1988 (Enríquez 1997). These, combined with unfavourable prices on a wide range of agricultural commodities, meant that many small scale land reform farmers ended up heavily indebted or in deep financial problems during the first part of the 1990s. Also politically, small scale farmers were losing support. Following the shift of government in 1990, political signals on the status of land reform titles remained ambiguous through the 1990s (Brockett 1998; Walker 2000).<sup>1</sup> There was a

widespread feeling of tenure insecurity among land reform beneficiaries, many of whom feared claims made by former landowners wanting to get their land back. In Miraflores (Saalismaa 2000), as elsewhere in Nicaragua (Brockett 1998; Baumeister 2001), many small scale farmers were either forced to give back their land to the former landowners or felt tempted to sell all or parts of their land.<sup>2</sup> For Nicaragua as a whole, the Ministry of Agriculture and Forestry estimated that more than one million manzanas<sup>3</sup> (700,000 ha) (Baltodano 2001), corresponding to 12 percent of the land redistributed during the land reform between 1978 and 1988 (Baumeister 1995) was returned to the previous owners.

The exact magnitude of land sales and transfers taking place since 1990 in Miraflores is unknown. Many of the families who had given up land received during the land reforms have left the area. However, among the families still living in 2001, in those communities of Miraflores where land was redistributed during the land reforms, 19 percent indicated to have sold or lost land during the past 20 years<sup>4</sup> as compared to only 6 percent of families living in non-land reform communities. More than half of these families had sold due to debts and other economic problems. In Miraflores, only 10 percent of the households living in the area in 2001 were beneficiaries from the land reform taking place before 1990. An additional 5 percent of the households were beneficiaries of the land reform which took place after 1990 as part of the peace agreement intended to promote the social 're-insertion' of ex-combatants of the war from both sides.

However, not all land reform beneficiaries have been equally unfortunate. Some have not only managed to hold on to the land given to them during the land reform, but have also acquired more land through the 1990s. Of those families who had sold land, but are still living in the area, many sold to neighbours or fellow cooperative members (43 and 14 percent respectively).

More significantly, however, in terms of influencing the overall tenure pattern and, in particular, the level of land concentration, people from outside Miraflores have also bought up land in Miraflores. This has given rise to a new group of middle and large scale, resourceful landowners (Lacayo & Montalvan 2000; Saalismaa 2000; and authors interviews with inhabitants of Miraflores between 1999 and 2001). These new landowners have invested: (1) in cattle production in the lower part of Miraflores; (2) in intensive, often irrigated vegetable production in the upper part; or (3) in coffee production in the mid-altitude and upper part of Miraflores. Many of these new landowners are absentee landowners employing farm managers and/or caretakers. As an indication of the extent of absentee landowner-caretaker farming, 14 percent of the families living in Miraflores indicated that they were caretakers.<sup>5</sup> A socio-economic survey conducted in 2000 found that with an average farm size of 12 manzanas, 96 percent of the farms in Miraflores (=841 farms) controlled 39 percent of

the area, while the remaining 4 percent of the farms (=37 farms) controlled 61 percent of the area (Bachmann n.d.). Together with the economic and political problems of indebtedness, a lack of economic opportunities combined with tenure insecurity and the awareness of resourceful investors ready to buy up land in Miraflores, many small scale farmers and families in general began to feel the environmental consequences of the agricultural practices of the 1980s. Firewood collection was becoming ever more time consuming and difficult. Due to heavy reliance on agro-chemicals and the clearing of shaded coffee fields to give way for potato and vegetable cultivation,<sup>6</sup> many families and sometimes entire communities had experienced the contamination of their drinking water supply by chemical residues or had suffered from intoxication due to direct contact with agro-chemicals. Despite a decline in the use of agro-chemicals during the 1990s, due primarily to the overall decline in potato cultivation, an average of 14 percent of the families living in Miraflores in 2001 stated they had experienced contamination of their water source (whether spring, stream, well or piped) by agro-chemicals during the earlier 5 years. In the communities<sup>7</sup> where intensive potato cultivation had taken place during the 1980s (and continues till date although to a lesser extent), this percentage was as high as 50 percent.

## FROM DECLARATION TO CO-MANAGEMENT

### Miraflores Becomes a Protected Landscape

It was in this context that, in the early 1990s, the first seeds were sown to foster the idea of Miraflores as a PA. The initiative came from the natural resource commission of the UCA-Miraflores. UCA-Miraflores was established in 1990 as a second-order service cooperative to protect the interests of the members of the cooperatives that had been created during the 1980s in Miraflores, for example, as part of the land reform (Bachmann n.d.; MARENA-PANIF 2001). During its initial years of existence in the early 1990s, UCA-Miraflores had a broad membership. Approximately half of the families living in Miraflores were reported to be members of UCA-Miraflores through their membership of a first order cooperative (Bachmann n.d.).

One of the first major activities of the UCA-Miraflores was to initiate a participatory planning process, which included workshops held in each of the member cooperatives. This resulted in the formulation of a vision called *sueños dorados* (golden dreams), representing the cooperative members' visions for Miraflores (Bachmann n.d.). These *sueños dorados* had a strong environmental focus and as an immediate result of these visions, it was decided in 1993 to prohibit hunting, felling of trees, and extraction of fuelwood for sale outside Miraflores—at least among members of the UCA-Miraflores. A group of voluntary forest guards were formed to collaborate with the Ministry of Environment and Natural Resources

(MARENA), in enforcing this prohibition (Ramirez 1993; Saalismaa 2000).

In parallel with and in support of this vision-based, participatory planning process, the UCA-Miraflor approached the municipal council of Estelí to jointly explore the possible development of Miraflor, taking into account its high agricultural potential on the one hand and the environmental damage caused by high levels of agro-chemical use during the 1980s on the other. These joint considerations continued, and in 1993, the UCA-Miraflor organised 'The first environmental meeting of Miraflor' with participation from its own members, the municipal council of Estelí and other organisations in the area (Saalismaa 2000). At this meeting, it was decided to make a request to the national assembly of Nicaragua that Miraflor should be included in the National System of Protected Areas. In 1996, Miraflor received legal status as a PA.<sup>8</sup> A few years later, following the development and approval of the Regulation for Protected Areas of Nicaragua (RDN 1999) and the first draft of the management plan for Miraflor (MARENA-PANIF 2001), Miraflor was assigned the status as a 'protected landscape and/or seascape'<sup>9</sup> corresponding to the IUCN category V, i.e.,

*....area of land [...] where the interaction of people and nature over time has produced an area of distinct character with significant aesthetic, ecological and/or cultural value, and often with high biological diversity. Safeguarding the integrity of this traditional interaction is vital to the protection, maintenance and evolution of such an area (IUCN 1994).*

### Exploring the Motives for Protection Through the Flow of Actions

Obtaining the status of a PA, or, as in the case of Miraflor that of a protected landscape, has a number of implications. First it lends a specific identity and thus visibility to an area. In the post-Río era, Miraflor, as a protected—and inhabited—area, became an attractive target for external development and environment oriented funding that aimed at promoting sustainable development. On the basis of its vision-based planning process, the UCA-Miraflor managed to formulate proposals and attract funding to support its *sueños dorados*, i.e., its sustainable development strategy, from the European Union and from both German and Swiss non-governmental organisations (NGOs) (Bachmann n.d.). The activities financed as part of this sustainable development strategy did not relate narrowly and only to protection, but aimed more broadly at developing and promoting organic farming practices, such as integrated pest control for a number of important crops; agricultural processing and marketing; improving health and education, etc. Also, obtaining the status of a

PA provides the legal basis for claiming the attention of the government and its institutions, in this case specifically of the MARENA. The MARENA has the responsibility for ensuring that a management plan is developed and implemented either by itself or in a collaborative arrangement with other institutions such as universities, NGOs, environmental non-profit organisations or municipalities. If the owner of land within a PA does not accept the management plan, his or her land can be expropriated in return for compensation.<sup>10</sup> Due to Miraflor's special status as a protected landscape, the management plan for Miraflor should 'allow economic activities which are in harmony with nature and the preservation of the social and cultural fabric of the related communities' and should 'prohibit the introduction of exotic species, the use of explosives and poisonous substances within the limits' (RDN 1999: 39, author's translation).

Thus, in relation to the new liberal government, the status of a PA became, to small scale farmers, what the cooperatives were to them during the Sandinista government—a platform for claiming donor as well as government attention. The motives for wanting to claim donor attention are straightforward and well known in the area. As an absentee owner of land in Miraflor explained in an interview with Nina Saalismaa in 2000:

*Well, you know, there are many issues in fashion, for example working with street children, with women, and these things get money from outside. So 'protected area' [status] brings money for an organisation.... if I wanted to get money from outside, I'd look for a matter that's in fashion. And then I would try to convince people.... (Saalismaa 2000: 41).*

However, the motives for wanting to claim government attention by achieving the status of a PA for Miraflor are less obvious, particularly when such government attention is likely to take the form of restrictions on farming practices and resource use in general and increased enforcement of such restrictions. These motives, therefore, merit a closer analysis. In order to understand the UCA-Miraflor's underlying motives for seeking the intervention of government institutions through establishing a PA, the following section describes how different key actors have tried to position themselves in the development of the management plan for Miraflor.

### Actors are Positioning Themselves— Towards a Management Plan for Miraflor

The first to formulate and implement restrictions on natural resource use with the aim of protecting Miraflor was, as mentioned above, the UCA-Miraflor. In 1993, before the formal declaration of Miraflor as a PA, they had

already decided to prohibit hunting, felling of trees, extraction of fuelwood from the area and the use of fire for clearing fields before planting. If a person wanted to cut down a tree for the construction or maintenance of a house, he or she had to ask the local voluntary forest guard (and member of the Natural Resource Commission of the UCA-Miraflor) to inspect the tree. The voluntary forest guard would then elaborate an assessment and recommendation to the MARENA who would generally authorise this assessment. From 1995 to 1998, the UCA-Miraflor paid a MARENA technician to work with them as the technical advisor to their Natural Resource Commission, using funds obtained from a German NGO. Since 1998,<sup>11</sup> this technician has been the coordinator for PAs and biodiversity in the MARENA's departmental delegation in Estelí. Thus, in this early part of Miraflor's history as a PA, support was channelled through the UCA-Miraflor, who then paid for the services of the MARENA in order to advice and endorse *their* (UCA-Miraflor) management norms for Miraflor.

Opinions are mixed about the performance of the voluntary forest guards of the UCA-Miraflor during this period. Many people in Miraflor, irrespective of resource endowments, express the opinion that the UCA-Miraflor forest guards were too strict in their implementation of the rules, not even allowing people to cut down dead trees before they started to decompose. Thus, they were making life very difficult for people. Others—both small scale farmers sympathetic to ideas of protection and organic farming, and environmentally oriented observers from outside Miraflor, for example, from the municipal environmental commission, the MARENA, etc.—praise the UCA-Miraflor's efforts in effectively reducing the amount of fires and the damage caused by fires running out of control during the mid-1990s (interviews conducted during 1999 and 2001).

The late 1990s, however, marked a significant change in the UCA-Miraflor's position as a strong and the almost sole, legitimate actor in the governance of natural resource use in Miraflor. First of all, the UCA-Miraflor had internal problems. Members of the UCA-Miraflor complained about lack of financial transparency, while the UCA-Miraflor complained that members did not service their debts with the UCA-Miraflor. Thus, in 1996, a considerable number of cooperatives withdrew their membership from the UCA-Miraflor, some of them allegedly without getting their deposits back. As discussed above, many families lost or sold—a significant part of—their land. Therefore, whether or not they had been formally associated with the UCA-Miraflor, they lost the sense of the UCA-Miraflor as an organisation representing them. Of the families living in Miraflor in 2001, 19 percent indicated to be members of the UCA-Miraflor while an additional 10 percent indicated to be former members of the UCA-Miraflor. This membership drain obviously weakened the UCA-Miraflor's position as a

legitimate representative of the interests of the population of Miraflor.

Secondly, however, the UCA-Miraflor's success in generating donor and government support for Miraflor as a PA ironically also contributed to weaken its position. Following the request from the UCA-Miraflor (Barsev 1999), the MARENA started receiving funding in support of the management of Miraflor as a PA in association with the Finnish funded Environmental Cooperation Programme Nicaragua Finland (PANIF). Miraflor was regarded as a pilot project and one of the aims of the support was to explore the methods for developing a management plan for the area through a participatory process.<sup>12</sup>

The fact that it was now the ministry rather than a cooperative union leading the process of establishing a governance regime for Miraflor made it possible for actors outside the circles of the UCA-Miraflor and the MARENA to participate. Among those who joined the process were a group of emerging, largely absentee medium and large scale farmers who recognised the need to constitute themselves as legitimate actors. This resulted in the formation of the Association of Environmental Producers of Miraflor (APROAMI). Although some medium and large scale farmers were initially sceptical about declaring Miraflor a PA (MARENA-PANIF 1999), the declared objective of the APROAMI was to 'promote self-reliant community development to achieve sustainability for the protected area Miraflor and to improve the well being of producers and inhabitants' (MARENA-PANIF 1999). By 1999, the APROAMI had 64 registered members, the majority of whom, however, were living outside Miraflor, for example, in the nearby city of Estelí. Among the families living in Miraflor in 2001, less than 1 percent stated that they were members or associated with the APROAMI.

Nevertheless, the APROAMI gradually managed to position itself as a legitimate representative of what they termed *productores y pobladores* (producers and inhabitants) of Miraflor and through the PANIF project, the MARENA became increasingly responsive to the views of the APROAMI at the expense of those of the UCA-Miraflor. Some of the members of the APROAMI's management served as consultants to the MARENA-PANIF (interview with a MARENA technician, March 2001). Moreover, the APROAMI managed to convince the MARENA of the necessity to create an independent organisation of voluntary forest guards to act on behalf of/in coordination with the MARENA and thus replace the members of the natural resource commission of the UCA-Miraflor, who had hitherto undertaken this role. In 1999, this new organisation of voluntary forest guards became formally recognised as 'the only' forest guard organisation in Miraflor.<sup>13</sup> In 2000, the MARENA-PANIF-supported organisation of voluntary forest guards counted 88 members.<sup>14</sup> Among them were the APROAMI members and resident farmers who had left the UCA-Miraflor in 1996 following disagreements concerning

financial management. All voluntary forest guards received uniforms and training, and some were even sent to Managua and to Costa Rica for training. Thus, this group of forest guards became a vehicle for building popular support for the APROAMI. However, many of the UCA-Miraflor's forest guards continued to perceive themselves as such. In 2001, as many as 20 percent of the families living in Miraflor stated that one of their household members was a voluntary forest guard. With a total resident population of a bit more than a thousand households, this corresponds to a total of more than 200 voluntary forest guards, which means that in addition to the 88 forest guards registered with the MARENA, there were a hundred or more persons who perceived themselves as voluntary forest guards many of whom associated with the UCA-Miraflor. Of the households stating to be voluntary forest guards in 2001, 35 percent were current and 25 percent were former members of the UCA-Miraflor, while the remaining 40 percent had never been members of the UCA-Miraflor. A quarter of this latter segment of voluntary forest guards with no current or former formal association with the UCA-Miraflor had been encouraged to become forest guards by the MARENA through the PANIF project. These forest guards are voluntary and do not receive any form of payment, but in many cases they were equipped with uniforms (shirt, caps, etc.), received recognition both locally and with external organisations, and would often be the first to be invited for public events, such as meetings with representatives from international and national NGOs, ministries, etc.

As part of the participatory process towards developing a management plan for Miraflor, the MARENA-PANIF arranged three workshops in Miraflor between May and December 1999. At the first workshop, all but three participants were members of the UCA-Miraflor, while at the second workshop, more APROAMI members were participating and, as described by the regional MARENA coordinator for protected areas and biodiversity, "...they gradually took charge of the meeting with the MARENA participating as observers and resource persons" (*pers. comm.* November 1999). Following this second workshop, the UCA-Miraflor decided to withdraw its collaboration with the MARENA-PANIF, because, they felt that the MARENA was accepting a course of action which would not lead to the actual protection of Miraflor. In their view, the MARENA had become so flexible that more and more permits were issued, allowing people to burn their pastures and crop residues as part of land preparation, to cut down trees and turning a blind eye to increasing sales of firewood out of the area. All this, the UCA-Miraflor claimed, happened due to the new alliance between the well-educated leadership of the APROAMI and the external PANIF advisor to Miraflor. Hence, rather than fighting from within and struggling to get their views heard and accommodated in the participatory process facilitated by the MARENA, the UCA-Miraflor

decided to opt out in 1999 (interview with Porfirio Zepeda, Director, the UCA-Miraflor, February 2001).

The UCA-Miraflor, however, continued its efforts to influence the governance of Miraflor as a PA and due to its national and international relations, it could not be neglected by the MARENA. The UCA-Miraflor engaged in a process of strengthening the technical arguments for a more restrictive management plan, for example, by contracting external consultants to make inventories of (rare species of) orchids, birds and other flora and fauna. Moreover, they contracted consultants to help develop techniques for the organic cultivation of such crops as potatoes and tomatoes and thereby ensure that restrictions on the use of external inputs would be accompanied by viable technical alternatives. Also, they seized every opportunity to cast doubts with respect to the extent to which the MARENA was sincerely working in favour of environmental protection, given its relaxed attitude on issues such as deforestation and burning. Besides expressing these doubts to the minister of environment and natural resources, they were also expressed at a public event with the participation of international environmental donors (interview with Porfirio Zepeda, Director, the UCA-Miraflor, February 2001). The UCA-Miraflor also formally raised their concerns with members of the national assembly (Lacayo & Montalvan 2000). After these events, in March 2001, the MARENA asked for a meeting with the UCA-Miraflor to explore the possibilities for resuming collaboration. This request was made before the visit of the minister of environment and natural resources to Miraflor and before the presentation of the draft management plan for Miraflor.

### **The Management Plan—The 'Arena' for Negotiating Landscapes and Livelihoods**

The management plan for a PA is, as mentioned above, is an important instrument. It specifies the norms and technical recommendations which regulate which activities may and/or should be performed within the PA. Non-compliance with the norms established in the management plan may, at least formally, lead to sanctions and eventually to the expropriation of the land by the state.<sup>15</sup> In Miraflor, some of the controversial issues at stake with respect to natural resource use and the management plan were (and still are): (1) the extent to which existing patches of forest, ranging from humid, mountain cloud forest to dry tropical forest should be maintained at its present level or even rehabilitated to ensure that the forest maintains its ecological functions (for example, serving as corridors and conserving biodiversity); (2) the extent to which coffee cultivation should be permitted in the forest at the expense of the natural forest undergrowth; (3) the extent to which the introduction of new forage species should be permitted in Miraflor; (4) the extent to which the use of agricultural chemicals should be permit-

ted; (5) the extent to which irrigation should be permitted; and finally (6) the extent to which firewood extracted from Miraflores should be permitted to be used and sold outside Miraflores. As argued elsewhere (Ravnborg 2003), these are all issues where the natural resource management practices of the poorest segment of the population play an insignificant role due to limited formal as well as effective access to agricultural forest land and to capital necessary, for example, to install irrigation or to transport significant volumes of firewood.

The first draft for a management plan for Miraflores was published in February 2001 (MARENA-PANIF 2001). It was discussed at a number of workshops with the participation of various stakeholders in March 2001 and was officially presented at the municipality of Estelí on 4 April 2001.<sup>16</sup> The draft management plan was surprisingly restrictive with respect to most of the above mentioned controversial issues. As an example, it proposed not only to protect existing primary forest but also to rehabilitate existing intervened and degraded forest to reach a total of 4,000 ha of protected, rehabilitated forest, corresponding to 30 percent of the total area in order to ensure the integrity of landscape ecological functions. In practice, this implies prohibiting any further expansion of the agricultural area. Moreover, the draft management plan proposed that only certified agricultural chemicals should be permitted in the agricultural and pastoral zone and that the use of any agricultural chemicals should be prohibited close to forest patches in the intensively protected zone as well as in the forest rehabilitation zone.

The APROAMI adopted a dual strategy in response to the first draft of the management plan. On the one hand, the APROAMI members repeatedly referred to poverty as the main cause of environmental degradation in Miraflores, thereby deflecting the attention of external organisations and authorities, as well as insiders' attention, from the harmful environmental impact of their members' agricultural activities such as irrigated vegetable production, generally associated with high levels of agro-chemical use and large scale livestock keeping (Ravnborg 2003). As a leading member of the APROAMI said at a workshop called by the MARENA to discuss the management plan prior to its official presentation, "It is the poverty that is destroying the environment. They [the poor] enter into our properties and cut down firewood; they are destroying our land."

At the same time, the APROAMI members were objecting in technical terms to the contents of the draft management plan. Prior to the official presentation of the draft management plan, the APROAMI had sought to influence the MARENA to abstain from suggesting the restriction of the use of chemical inputs in the agricultural and pastoral zones and the ban on use of agricultural chemicals in zones of rehabilitation, but with no success (interview with a MARENA technician, March 2001). At the official presentation of the draft management plan,

the reaction from APROAMI was to cast doubts upon the technical validity of the concept of a protected 'landscape' recommended as the suitable protection category proposed by the MARENA, but never used before in Nicaragua. Thus, the APROAMI members clearly indicated that in their view, the negotiation of the management plan and the associated management principles were far from over and that whatever restrictions were put in place, these should be accompanied by alternatives and by economic compensation. "If the landowners do not agree to the management plan, you cannot approve it", one of the leading members of the APROAMI said, and although legally disputable [cf. the formerly quoted provisions of the general environmental law (217) and the regulation for PAs (14-99)] the MARENA representative reluctantly agreed to this.

The UCA-Miraflores also adopted a critical attitude towards the MARENA and the first draft of the management plan, but for different reasons. They claimed that the need for protection and rehabilitation was much bigger than indicated in the draft management plan. The draft management plan referred to a forest inventory, which identified 288 species of which 27 percent were found to be endemic to Nicaragua and Central America (MARENA-PANIF 2001). Based on its own inventories, the UCA-Miraflores contested the quality of this inventory and claimed that the total number of species, and that of endemic species, to be much higher. The UCA-Miraflores rejected the need for compensations; as the president of the UCA-Miraflores explained, "In my point of view, we have to protect the natural resources and that is what I am doing and I can't complain because, really, the one who is gaining, even economically, is me." Finally, the UCA-Miraflores representatives repeatedly expressed that they would like to see the MARENA assuming a much stronger and stricter role than they had during the last couple of years.

### **A Strategic Alliance in Search of a Strategic Consensus?**

After the official presentation of the draft management plan, it was clear to the MARENA that they would not be able to finalise the management plan unless consensus was reached and that this, in turn, would be difficult at that time in the prevailing context of two constantly opposed parties, the APROAMI and the UCA-Miraflores. Thus, the idea emerged to create a joint forum to serve as a platform for the finalisation of the management plan. This idea materialised in 2002, when leading APROAMI members took the initiative to form what they called the Foro Miraflores (Miraflores Forum)—the Association of Inhabitants and Producers of the Natural Reserve Miraflores-Moropotente. The Foro Miraflores was officially established in January 2002 and the municipality of Estelí gave legitimacy and the appearance of a democratic rep-

resentation to the Foro by allowing the use of the municipal council quarters for the event.<sup>17</sup> Despite the clear fingerprints of the APROAMI, for example, also visible in the name, repeating the APROAMI's distinction between *producers* and *inhabitants*, the new organisation also counted on participation from what was left of the UCA-Miraflor. Since April 2001, the UCA-Miraflor's financial situation drastically worsened and the UCA-Miraflor's powerful director, Porfirio Zepeda, had left the UCA-Miraflor. The fact that the UCA-Miraflor now also participated in the Foro Miraflor obviously contributed further to the perception of the Foro Miraflor as a truly joint forum.

One of the stated objectives of the Foro Miraflor was to create 'a platform for the discussion, evaluation and dissemination of the management plan for Miraflor'. Thus, the Foro Miraflor orchestrated an organisational process, arranging community elections for each community to elect its representative to the Foro Miraflor assembly. This obviously gave credibility to the Foro Miraflor's claims of territorial representation. Another objective of the Foro Miraflor was to provide the link between the so-called 'inhabitants' of Miraflor-Moropotente and external organisations in an effort to attract externally funded projects to the area to improve the social and economic well-being of the inhabitants of Miraflor-Moropotente. By the beginning of 2004, the Foro Miraflor had managed to mobilise external funding from a couple of European NGOs that enabled the establishment of community funds for which community members could make applications (approximately USD 1,250 per community) and a small fund for social projects like school rehabilitation or water supply maintenance, housing projects, etc. Although this second objective and the associated activities do not appear to be immediately related to the governance of Miraflor as a PA, the ability to attract and execute such projects obviously contribute to build public awareness of and support for the Foro Miraflor as an organisation.

The financial support from the PANIF ended in 2001 before the management plan for Miraflor was finalised, but in 2003 the MARENA managed to obtain funding from the Programa Socio-Ambiental y Desarrollo Forestal (POSAF) II, a multi-donor funded social forestry programme implemented through the MARENA, to finance the completion of the management plan for Miraflor. The Foro Miraflor participated in coordinating the conclusion of the management plan which had involved a number of meetings with different actors (interview with G. Quiros a MARENA departmental delegate, Estelí, February 2004) and the final draft was published jointly by the MARENA, the POSAF II and the Foro Miraflor in 2005 (MARENA 2005). Comparing this final version with the first draft from 2001, a notable difference was that the area proposed to constitute the protected landscape had more than doubled (from 132 sq km in 2001 to

294 sq km in 2005) to include, among other areas, large tracts of extensively managed livestock farms. Moreover, while maintaining many of the strict management norms for the areas in which small scale farming predominates (like restricting the use of inorganic pesticides in the 'low impact agroforestry zone', an area where the small scale cultivation of tomatoes was a widespread source of income), the management norms for the areas characterised by extensive livestock production undertaken primarily by large scale absentee landowners were much less restrictive (e.g., non-approved chemicals and pesticides were not permitted along the banks of water sources and rivers and at the hillsides close to water bodies). Similarly, the high-altitude plains of Miraflor, which were also increasingly in the hands of resourceful absentee landowners, and which contained rich patches of primary, biodiversity rich cloud forest and numerous water springs that provide water for a large number of downstream communities, had in the final version been defined as a 'low impact agro-silvopastoral zone'. Thus, rather than prohibiting the use of inorganic agro-chemicals, only the use of non-approved agro-chemicals had been restricted. Finally, the technical zoning proposal of the final version of the management plan contained a wide range of project proposals to be developed for external funding. For the livestock zones, these were primarily productive, while for the areas characterised by small scale farming, the proposals were oriented towards conservation and awareness building combined with the the generation of alternative sources of income for the population (MARENA 2005).

Judging from the outcome of the management plan, it seemed that the Foro Miraflor became, at least until the approval of the management plan, the organisational manifestation of a strategic alliance—a patron-client relationship in modern disguise—between 'the producers', i.e., the resourceful, mostly absentee landowners, who despite their resourcefulness, constituted a minority in the area and therefore needed numerous alliance partners in order to claim legitimacy, and, on the other hand, 'the inhabitants', i.e., the poorest part of the population, who tended to be virtually landless or marginal farmers. These marginal farmers were therefore rarely among the members of the cooperatives or otherwise connected to external organisations and were thus rarely able to present their own cause. Both parties, and increasingly also the Foro Miraflor as an independent actor, gained from referring to the narrative of the vicious circle relationship between poverty and environmental degradation. By documenting the deprivation which many households suffer in Miraflor, for example, by making reference to the poverty profile developed as part of the research partly reported in this article (Ravnborg 2002), the Foro Miraflor managed, as described above, to mobilise funding for social development in Miraflor. This in turn won the Foro Miraflor the support and thus the legitimacy necessary for

it to act as a facilitating and negotiating partner during the finalisation of the management plan. The result was, as described above, a significant relaxation of the management norms initially proposed for the parts of Miraflor associated with interests of the resourceful absentee landowners.

Despite their key role in the process leading to the declaration of Miraflor as a PA, the landed small scale farmers appear to have been left out from this strategic alliance. Thus, they seem to have paid the price in the form of strong restrictions on farming practices in the areas where small scale farming predominates. At the same time they were unable to reap the benefits in terms of restrictions on farming practices that would effectively contain the expansion of resourceful farmers at their own expense, or protecting the natural resources such as forest and water resources, on which their livelihoods depended.

### CONCLUSION

The elaboration of PA management plans is often regarded as a technical exercise, building upon sound ecological principles. However, as the above case illustrates, in practice it is much more than that. As soon as efforts are made to generate local ownership of a PA in general or specifically of a management plan, through processes such as public hearings, negotiations start which are not only about protecting landscapes and biodiversity, but also about securing and expanding livelihoods. Alliances are made and discursive strategies employed by various social actors to obtain a position from which to influence the environmental governance regime emerging from the PA declaration and the associated management plan. Lack of awareness of these processes, unproven assumptions about inherent contradictions between poverty and conservation, and a predilection for consensus rather than for facing conflicting interests jeopardise achieving the intended conservation objectives. It also undermines the entire case for promoting local participation in PA management.

Thus, from an environmental point of view, rather than assuming an inherent contradiction between poverty and conservation, the case of Miraflor illustrates the need for a careful understanding of the alliances forged and discursive strategies employed by various social actors during the establishment of PA management regimes, and in particular during the negotiation of the management plan. Only through such understanding, translated into carefully conceived and monitored stakeholder participation and negotiation of PA management, will it be possible to identify the overlaps between development and conservation agendas which stand the best chance of leading to landscape protection. The responsibility for facilitating the participatory processes involved in PA management and for ensuring the identification of genuine overlaps between efforts to protect livelihoods and efforts to pro-

tect ecosystems, cannot be left to directly involved parties alone. It ultimately rests with an environmental authority, tasked to promote what are considered to be public environmental concerns, and, at least ideally, possessing the necessary competencies and legal provisions to meaningfully assume this responsibility. In the case of Miraflor, it has yet to be seen if the MARENA will and can assume this responsibility.

### Acknowledgements

The author wishes to acknowledge the financial support provided by the Danish Social Science Research Council for the research upon which this article is based. The author gratefully appreciates the suggestions on a previous version of the article from Jim Igoe and Betty Faust as well as anonymous reviewers for the journal. Last but not least, the author wishes to thank the many people in Estelí and Miraflor who shared their views and experiences on Miraflor becoming a protected landscape.

### Notes

1. Agreement of 1995 was questioned again by Arnoldo Aleman who took office as president of Nicaragua in 1997. Not until later 1997, did the national assembly approve the Law of Urban and Rural Reformed Property [Walker (2000) quoting Nitlapán-Envío team (1997)].
2. It should be noted, however, that in Nicaragua as a whole, a significant part of the land reform beneficiaries were urban (Paige 1997). Thus, for some an additional reason for selling land obtained through the land reform was a dislike for farming as an occupation.
3. 1 manzana=0.7 ha.
4. Only one of these families (2.9 percent) indicated to have lost land *due to* the land reform, i.e., having (part of) their land redistributed.
5. Of the caretakers in Miraflor, 85 percent indicated to have no land of their own while an additional 7 percent indicated to own a house and the plot around the house (known as a *solar* in Nicaragua).
6. Saalismaa (2000) describes that an important reason for clearing the shaded coffee fields was to deprive the *contras* of hiding places during the civil war.
7. Puertas Azules and El Cebollal.
8. Ley General del Medio Ambiente (217), Article 154. URL: <http://www.ccad.ws/documentos/legislacion/NC/L-217.pdf> (last accessed January 2008).
9. República de Nicaragua 1999-Decree 14-99, Chapter V, Article 8/8.
10. Ley General del Medio Ambiente (217), Section III, Article 23.
11. And up until 2006.
12. In addition to the development of the management plan, the PANIF financed a number of research projects, mainly carried out by the Centro Agronómico Tropical de Investigación y Enseñanza, Costa Rica, on the agro-ecology and the biodiversity of the area, a number of consultancies on various topics including ecotourism, and the construction of a meeting and training centre in El Cebollal in Miraflor and a number of control posts and watch towers. The project is said to have spent USD 600,000 [URL: <http://www.laprensa.com.ni/archivo/2003/marzo/02/mosaico/mosaico-20030302-05.html> (last accessed December 2007)].

13. Official letter, 10 June 1999, from the MARENA-Estelí to the managerial board of the voluntary forest guards.
14. Lista de Guardabosques, MARENA-Estelí – Áreas Protegidas y Biodiversidad. 2000.
15. Decree 14-99, Chapter XIII, Article 61, and Ley General del Medio Ambiente (217), Section III, Article 23.
16. I was invited to participate as an observer in several of these events.
17. Extra-ordinary session no. 1, Municipal Council, Estelí, held at the Environmental Centre, El Cebollal, Mirafior, 29 January 29 2002.

## REFERENCES

- Adams, W.M. and J. Hutton. 2007. People, parks and poverty: Political ecology and biodiversity conservation. *Conservation and Society* 5(2):147–183.
- Bachmann, F. *n.d.* El aporte de una estrategia de género para el uso sostenible de los recursos naturales. Un estudio de caso de Nicaragua. *Mimeo*.
- Baltodano, M.E. 2001. Documento de avance. Información base del sitio de referencia del proyecto CIAT Laderas, Nicaragua. Draft. CIAT Laderas, Managua, Nicaragua.
- Barsev, R. 1999. Agricultura de laderas, áreas protegidas y agroturismo: Una alternativa para aumentar los ingresos de los productores en una zona con belleza escénica. Paper presented at Foro Regional de Pagos por Servicios Ambientales con énfasis en Agricultura Sostenible de Laderas organised on 27–29 October 1999 in Salvador, Brazil.
- Baumeister, E. 1995. Farmers' organisations and agrarian transformation in Nicaragua. In: *The new politics of survival: Grassroots movement in Central America* (eds. Sinclair, M. and J. Nash). Pp. 239–263. New York: Monthly Review Press.
- Baumeister, E. 2001. Peasant initiatives in land reform in Central America. In: *Land reform and peasant livelihoods. The social dynamics of rural poverty and agrarian reforms in developing countries* (ed. Ghimire, K.B.). Pp. 65–85. Colchester: ITDG Publishing.
- Brockett, C.D. 1998. *Land, power and poverty: Agrarian transformation and political conflict in Central America*. Oxford: Westview Press.
- Broegaard, R.J. 2005. Land tenure insecurity and inequality in Nicaragua. *Development and Change* 36(5): 1–20.
- Büscher, B. and W. Wolmer. 2007. Introduction: The politics of engagement between biodiversity conservation and the social sciences. *Conservation and Society* 5(1):1–21.
- Enríquez, L.J. 1997. *Agrarian reform and class consciousness in Nicaragua*. Gainesville: University Press of Florida.
- Ghimire, K.B. and M.P. Pimbert. 1997. Social change and conservation: An overview of issues and concepts. In: *Social change and conservation. Environmental politics and impacts of national parks and protected areas* (eds. Ghimire, K.B. and M.P. Pimbert). Pp. 1–45. London: Earthscan Publications Limited.
- IUCN. 1994. Guidelines for protected area management categories. IUCN Publication Services Unit, Gland, Switzerland; and Cambridge, UK.
- IUCN. 2001. World Commission for Protected Areas Draft Strategic Plan. IUCN, Gland, Switzerland.
- Lacayo, N. and L. Montalvan. 2000. Evaluación del proyecto agroecológico de la UCA Mirafior. Report developed for ACSUR Las Segovias, Casa del Tercer Mundo. *Mimeo*.
- MARENA (Ministry of Environment and Natural Resources). 2005. Plan de Manejo del Paisaje Terrestre Protegido Mirafior Moropotenté". Managua. Ministerio de Ambiente y los Recursos Naturales, Nicaragua.
- MARENA-PANIF (Ministry of Environment and Natural Resources-Environmental Cooperation Programme Nicaragua Finland). 1999. Documento de Avance del Plan de Gestión Ambiental. Ministerio de Ambiente y los Recursos Naturales (MARENA) and Programa Ambiental Nicaragua Finlandia (PANIF), Nicaragua.
- MARENA-PANIF (Ministry of Environment and Natural Resources-Environmental Cooperation Programme Nicaragua Finland). 2001. Plan de manejo del paisaje terrestre protegido de Mirafior-Moropotenté (First draft). Dirección General de Áreas Protegidas, Ministerio de Ambiente y los Recursos Naturales.
- Murray, G.D. 2005. Multifaceted measures of success in two Mexican marine protected areas. *Society and Natural Resources* 18: 889–905.
- Nitlapán-Envío team. 1997. An accord besieged by discord. *Envío* 16. No 196.
- Paige, J.M. 1997. *Coffee and power: Revolution and the rise of democracy in Central America*. Cambridge: Harvard University Press.
- Ramírez, A. 1993. *En torno a una estrategia de desarrollo para la reconversión del modelo productivo: Caso de Nicaragua. Ensayo Preliminar*. Managua: Multiformes R.L.
- Ravnborg, H.M. 2002. Perfiles de pobreza para la reserva natural Mirafior-Moropotenté, Municipio de Estelí, y el Municipio de Condega, Región I, Las Segovias, Nicaragua. CDR Working Paper 02.5. Centre for Development Research, Copenhagen.
- Ravnborg, H.M. 2003. Poverty and environmental degradation in the Nicaraguan hillsides. *World Development* 31: 1933–1946.
- RDN (República de Nicaragua). 1999. Reglamento de Áreas Protegidas de Nicaragua. Decreto No. 14-99. CIRA, Managua.
- Saalismaa, N. 2000. Local people and protected areas—A case study from Mirafior, Nicaragua. Masters thesis, University of Helsinki, Finland.
- Walker, T.W. 2000. Nicaragua: Transition through revolution. In: *Repression, resistance and democratic transition in Central America* (eds. Walker, T.W. and A.C. Armony). Pp. 67–88. Wilmington: Scholarly Resources Inc.

Supervising editor: James Igoe

Received 5 February 2008. Revised 10 October 2008. Accepted 16 October 2008.