

6-2006

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**Managing a Forest Reserve Severely Affected by Illegal Logging and Farming.
Based on Research in Haiti.**

Managing a Forest Reserve Severely Affected by Illegal Logging and Farming. Based on Research in Haiti.

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August 2006**

Abstract

Forest reserves in developing countries can have severe problems with illegal logging and farming, and addressing these problems is complex. I worked in Haiti in 1997 as a forestry consultant for the Forest and Parks Protection Technical Assistance Project, financed by the World Bank. I offered recommendations for the management of a forest reserve (Foret des Pins) that was experiencing the problems mentioned above. I prepared a detailed report that included recommendations and a draft management plan for the reserve (Buffum 1997). Since the reserve was in a state of crisis, I recommended that the project initially focus on issues that could be handled without increasing the already severe conflict with local villagers, and move on to other issues after a few years. In 2006, I produced this modified report about the Haitian reserve, which focusses on issues that are relevant for other countries, and is much shorter than my original 1997 report.

1. Introduction

I lived in Haiti for four years working on an agroforestry project (Buffum 1985, Buffum 1998) and later did a short term assignment for a National Park (King & Buffum 96). I returned to Haiti for a month in 1997 as a Forest Management Specialist for the Forest and Parks Protection Technical Assistance Project (financed by the World Bank), focusing on the management of a Forest Reserve in Southeast Haiti (Foret des Pins). The Reserve was in a state of crisis due to ongoing forest fires, illegal expansion of farming, and illegal logging and charcoal production. In the past, many farmers had legally leased land from the government for farming inside the Reserve, but the establishment of new illegal gardens in the Reserve was accelerating because the farmers expected that the Forest Service would soon enforce a ban on forest clearing.

Illegal logging and forest fires were also major problems. A group of loggers realized that the Forest Service planned to curtail their illegal logging, and the group started setting forest fires as means of intimidation. Forest fires had already damaged many forest plantations and areas of natural regeneration that would have been suitable for thinning operations

I did observe several positive aspects related to the recent start-up of activities in the Reserve. The recently hired Forest Service staff were well qualified and motivated, and the Project had made impressive progress in establishing a surveillance system. And the natural regeneration of pines in the Reserve was very encouraging in areas not affected by fire. It appeared that the Reserve would have potential to regenerate naturally if the Forest Service could implement an effective fire control program and stop farmers from illegally clearing more forest land for farming.

Considering the critical state of the Reserve, I recommended that the Forest Service initially focus on the urgent task of limiting further destruction to the two zones of the Reserve that were still forested. This would involve temporarily accepting the recent conversion to agriculture in the Reserve. Avoiding confrontation with some residents of the Reserve who were not posing a direct threat to the Reserve could allow the Forest Service to avoid a public relations disaster that could undermine the success of the Project.

I initially prepared a detailed report that included many recommendations and a draft management plan for the reserve (Buffum 1997). In 2006, I produced this modified report for distribution to agencies in other countries where I was providing advice for the management of forest reserves. This 2006 version focusses on issues that are also relevant for other countries, and it is much shorter than my original 1997 report. My recommendations are provided in the following sections.

2. Establishment of Zones

The Project planned to establish several management zones inside the Reserve. During the first year, the Project would hire a consultant to conduct a land tenure study and prepare a plan for the demarcation of the Reserve and its internal zones.

2.1 Core Zones

I recommended that the most urgent zones to establish were the core zones, which would include areas that still have reasonable forest cover and a limited number of cleared gardens. There are two large areas of intact forest in the Reserve, one in the eastern portion of the Reserve that includes the Forest Service chalets, and one in the west that includes Peak La Selle. The Forest Service should delineate the border of these two core zones as quickly as possible and establish strict surveillance measures to stop their rapid ongoing destruction.

Eventually the Forest Service should subdivide the core zones into two categories: protected zones that would be preserved without any utilization; and thinning zones that would be managed for production of wood products during thinning operations. However, the first and most critical step in this process would be to stop the ongoing illegal conversion of the forests into agricultural land. Therefore I recommended the following:

- Demarcate the two core zones of the Reserve as soon as possible. Involve local committees in the demarcation process to increase community understanding and acceptance of the process.
- Exclude large areas of cultivated land, especially old gardens on flat land. Exclude pockets of forest outside of the main core zones. Be pragmatic, and exclude areas that are likely to involve serious conflicts with the local population.
- Clearly mark the core zones with the construction of a foot trail around the entire perimeter. This would facilitate surveillance and serve as a fire break. Plant a row of eucalyptus trees (or other non-pine species) along the boundary of the core zones. Contract neighboring farmers to plant and maintain the trees, paying an incentive each year for surviving trees.
- Strictly ban on gardening inside the core zones. Inform farmers that agriculture tools of offenders will be confiscated. But make exceptions for old gardens in the core zones on flat land with no tree cover. Inform farmers that they would be allowed to continue farming on a temporary

basis if they strictly follow these guidelines: no expansion of gardens, no gardens on steep slopes, and no damage to surrounding forest.

2.2 Agriculture Zone

The history of migration to the Reserve and the resulting land tenure arrangements were complex. However the most general division of farmers in the Reserve was between those who had legally leased land from the government in the past, and those who were illegal. The Project legally had the right to expel all of the illegal farmers, but doing so would result in a public relations disaster that could undermine the success of the Project. And many of the illegal farmers were farming land that had already been completely cleared of trees, and were thus no longer posing a direct threat to the core zone. I recommended the following:

- Inform the illegal farmers living outside the core zones that they may continue farming on a temporary basis until the Project makes a thorough assessment of which land (if any) should be reforested.
- Immediately strictly forbid any construction of new houses by illegal farmers. Take swift action against any person who starts to construct a new house, including children of existing families.
- Postpone removal of any farmers living outside the core zone until after the Project has been able to effectively demarcate the core zones and stop all illegal farming inside them. This would probably not be achieved until at least Year 3.
- Conduct a delimitation of the legally leased land inside the Reserve. Inform legal farmers that they will be provided with long term leases if they refrain from illegal activities inside the core zones, and if they practice soil conservation measures on their land.

2.3 Buffer Zone

The Project was considering several methods of determining the buffer zone. The definition of the buffer zone was complicated because so many

farmers lived inside the Reserve. The Forest Service estimated that 1,867 households had legally leased land inside the Reserve. Many more households were living illegally in approximately 50 settlements inside the Reserve. Most of the communities inside the Reserve were heavily dependent on its forest resources.

Considering that the Project did not have the financial resources to work with all of the communities in or close to the Reserve, it made sense to prioritize the communities and select those that were either: most dependent on the forest; causing the most damage to the forest; or most likely to play a role in protecting the forest. In July 1997 the Forest Service prepared an initial list of communities to be included in the buffer zone. During my field trip, we visited all of the communities and made several adjustments, replacing one and adding two more.

3. Demarcation of Reserve Boundary

The Project planned to delineate the outer boundary of the Reserve. This activity was not as urgent in the Reserve as in the national parks, because the border was already well known, and the outer portions of much of the Reserve had been cleared for cultivation for many years. Therefore I recommended that the delineation of the outer boundary be postponed until after the core zones have been completely delineated.

4. Forest Protection

Stopping illegal logging, charcoal production and creation of new gardens in the Reserve would be a huge undertaking, and should be the top priority of the Forest Service during the initial years of the project. The Forest Service had already reestablished one check post and recruited the first group of forestry staff. I recommended the following:

- Establish a second check post to catch the wood being illegally brought out of the Reserve in another direction. Be strict with any vehicles caught transporting illegal forest products. Provide arms to the forestry staff, but monitor them carefully and punish any misuse.

- Strengthen the program of fire control by increasing the budget for construction of fire breaks and procurement of fire-fighting equipment.

5. Thinning Operations and Community Forestry

The Project planned to organize thinning operations on 50 ha during the first year. The Forest Service staff would mark the trees that should be thinned, and then allow villagers to harvest the trees for personal use or sale. The Forest Service would not have to pay these farmers because the farmers would be gaining valuable products (firewood or timber).

This proposed program could be more effective if expanded into a true community forestry program by making long term agreements with the farmers rather than contracting them for just one thinning. Having a long term agreement would encourage them to protect the plot from illegal harvesting by other farmers, and would provide incentives for long term, sustainable management of the plot. I recommended the following:

- The Forest Service should design and implement a pilot community forestry program, whereby a group of farmers would be given a long term lease to manage a specified area of the forest under strict supervision from the Forest Service. The pilot community forestry program should not be implemented until Year 2 after the Forest Service has introduced an effective surveillance program. The community forestry program should be used to supplement an effective Forest Service surveillance program, not to replace it.
- The Forest Service should select the initial groups carefully and ensure that they have the necessary management capacity. Each group should have a written plan specifying: a description the group organization (officers, election process, financial systems, etc.); how they will protect the parcel (either by hiring a guard or instituting a rotating system of surveillance by group members); how they will mobilize labor for thinning operations; and how they will distribute the benefits (e.g. division of products to members, group sales, etc.).

- The Forest Service should provide the group with a clearly defined and easily recognizable parcel of forest that is close to the homes of the community members. This would greatly strengthen their ability to prevent other farmers from illegally exploiting their parcel. The Forest Service should make a clear and specific management plan for the parcel. In the initial years the Forest Service should be directly involved in marking the trees that can be harvested. If the community does not follow the Forest Service management prescriptions, their lease should immediately be canceled.

6. Reforestation

Reforestation is a valuable activity to rehabilitate critical parts of the Reserve. However, in recent years forest fires have severely damaged most of the plantations established by Forest Service. It does not make sense for the Forest Service to invest time and funds in reforestation until the incidence of forest fires in the Reserve is drastically reduced. Therefore I recommended that Forest Service postpone the reforestation program until frequency of forest fires is reduced, but that they use the reforestation budget to plant a line of trees to demarcate the zones of the Reserve.

7. Expansion of Reserve

The Project planned to expand the Reserve to include forest stands that were currently outside of the Reserve boundary. However, it was not clear whether the quality of the outlying stands justified an expansion of the Reserve. One potential expansion area was highly degraded and almost completely covered with gardens. Therefore, I recommended that Forest Service postpone expansion of the Reserve until an effective protection system for the existing core areas is in place, and that they carefully assess the quality of the outlying forest stands, and only consider expanding the Reserve to include dense stands of trees with limited area of gardens.

8. Technical Assistance

One of the outputs mentioned in my TOR was recommendations for future technical assistance to the Reserve. I was informed that the Forest Service

was considering hiring an additional short term (10 month) Forest Management Consultant. I was asked to prepare a draft TOR for this short term position, and to also revise the TOR for the long term Forest Advisor.

After visiting the Reserve and discussing the buffer zone program with the relevant agencies, I agreed that the Forest Service would benefit from the additional short term Forest Management Consultant. There were several urgent tasks that the Forest Service should start without waiting for the arrival of the Forest Advisor in 1998. The Forest Service would benefit from technical assistance from the Forest Management Consultant in carrying out urgent tasks such as planning and conducting a participatory demarcation of the core zone; establishing a network of ground control points to allow proper scaling and orientation of the videography, and preparing a rough land use map of the Reserve and buffer zone to facilitate the planning of project activities until the videography is available.

The Project also planned to hire a team for one month to develop a plan for the demarcation of the Reserve. This would provide an excellent opportunity for collaboration between the Forest Management Consultant and the team planning the demarcation. The team should test their methodologies in the Reserve concentrating on the urgent task of demarcating the core zone. The team should also help the Forest Service select the local committee that will assist the demarcation process; train the Forest staff and the local committee in participatory demarcation, and test the demarcation process on a sample of the border of the core zone with the Forest staff and the local committee.

9. Interim Management Plan

The Project is complex and includes a range of activities to be implemented by a number of agencies. Many of the staff of the Forest Service and other agencies were not familiar with the roles and responsibilities of the other agencies. As part of the process of reviewing documents for this assignment, I was asked to prepare a draft Interim Management Plan for the Reserve. It should have been a useful tool for the field staff until the final management plan was prepared in 1998.

References

Buffum, B. 1985. Three Years of Tree Planting in a Haitian Mountain Village: A Socio-economic Analysis. In Proceedings of Planting Trees With Small Farmers Workshop. Port-au-Prince, Haiti, Pan American Development Foundation.

King, W & Buffum, B. 1996. Supporting Local NGOs for Integrated Conservation and Development: Lessons Learned in Project Park Macaya. Haiti. Biodiversity Support Program (funded by USAID), World Wildlife Fund.

Buffum, B. Final Report of Forest Conservation Specialist, Foret des Pins Reserve, Haiti. August 1997. Forest and Parks Protection Technical Assistance Project (financed by World Bank).

Buffum B. 1998. Recommendations for Agroforestry Programs in Remote Villages of Developing Countries, Based on Research in Haiti. University of Rhode Island, DigitalCommons@URI.