

Outline of Management Plan for Serra Das Aranhas

By Rita McGrath, BSc.(hons) Environmental Science, National University of Ireland, Galway.
8th October 2004/4th November

What is the purpose of the Management plan?

The purpose of the management plan is to implement management strategies for the protection of the Area of Environmental Protection (APA) in Serra Das Aranhas, in the region of Rosario de Limeira, Minas Gerais, Brazil.

The management plan should incorporate the needs of the inhabitants of the APA with the sustainable and effective conservation strategies for the maintenance of biodiversity and cultural heritage.

What are the outcomes Expected from the Plan?

1. An account of the Current Management strategies in the APA
2. An account of the significant biotic, abiotic and cultural factors that currently exists in the area. In particular the forest in Zone 1 Serra das Aranhas
3. The Preparation of a GIS that shows the current land uses of the APA and their relative area. This will be done by Zoning areas in terms of preservation/conservation priorities.
4. A new management strategy to be agreed by a local community council as a future direction for the benefit of all who live in the APA and also to protect Biodiversity culturally and biologically.
5. The Eco-tourism potential of the area will be assessed and included in the plan as a strategy for sustainable development
6. Environmental Education strategy for the future of the APA will be given a new priority, under law.
7. The cost of implementation of the new strategies will be accounted for and budgeted with a long-term view of sustainable development.
8. Activities which threaten the biodiversity and ecological processes will be identified and assessed for damage. Mitigating measures will be put in place for such.

The layout of the proposed plan should be as follows: (subject to review)

1. Preface/Introduction

- 1.1 Physical Description of the location of the APA
- 1.2 International and regional laws pertaining to the conservation of the APA (why a conservation plan is needed)
- 1.3 The importance of the area as a buffer Zone for State park and its own importance in Mata Atlantica for conservation of plants, animals, genetic heritage and cultural heritage
- 1.4 Socio-economic status inclusive of the environmental economic value of clean water and nutrient rich soils
- 1.5 The current Budget for the protection of the APA

2. Descriptions of the Current Biotic and Abiotic Aspects of the APA

- 2.1.1. The Geology of the Area (Fiona Lawlor, Iracambi Files)
- 2.1.2. The Soils of the area (Iracambi Files)
- 2.1.3. The Water Catchments System (map)
- 2.1.4. The Vegetation of the area inc. Mosses, Lichens, Ground Flora, Shrub layer, Trees and Canopy Trees and their rareness as per Red Data Book. (Iracambi Files and Surveys of Biologists) rare Bromeliad found by Tuta.?
- 2.1.5 The fauna of the APA, including any rare birds/animals that are on the red data list. (surveys previous and potential by Zoologists, Iracambi files) Some birds are on the red list.
- 2.2.1 Description of the Cultural Aspects of the region: The Number of Farms, Houses, men. Women, Children living in the area. Schools, churches and other infrastructure that is seen as relevant. (swimming pool?)
- 2.2.2 Description of Cultural heritage of the region. Any Puri Indian sites (GPS Marks) or Sacred areas in the APA. Including why they are important. There is said to be a site of a village near the church in Aranhas

3 Management. (Including Maps from GIS, with GPS points)

3.1 Current Management In the Area – Agriculture/ Agroforestry

3.1.1. Overview of land use area and forested area in terms of Area (km²)

Zone1 – all AtlanticRainforest. Catalogued by municipality as Important Area for Preservation. Locals are no longer cutting down trees. Hunting in the area is seen as a problem for the animals that live there.

3.1.2All farms grouped according to size and the management practices in each. It appears that all the farms are small family run farms with the main produce being beef, milk, coffee, sugarcane. All farms are required by law to keep 10%-20% of their land as forest.

the farms are mostly in Zone2

3.1.3Large farms (Greater than ---- ha) What type of farming or integrated farming methods. (coffee/arable/cattle/horses) Is management overseen by owner, is owner absent most of the time? How is the protection of Forest and Water springs incorporated into the current management? in Zone 2 there is a large farm owned by Miguel de Barros. His current management is coffee fishing .. he wants to expand to ecotourism and has built a swimming pool area in his property. He has a waterfall (casheira) also on his property. Very keen to be involved in the plan!

3.1.4Smaller Farms (less than ---ha) What type of farming currently in place? How protection of the forest is carried out. it is probably more difficult for these farmers to give space

3.1.5 Areas that are not managed for whatever reason: Rocky out-crop/ land too steep etc.

3.1.6. The current Status of Eco-Tourism in Serra das Aranhas. The location and status of nearest visitor centre including number of visitors per year etc. Provision for Campers/Tourists in terms of facilities

3.1.7 List and quantity of plants used in the APA for Food, harvesting and sale, craft&tool making, medicinal use (not necessary for the plan but could help with management strategies)

3.2 Suggested Management Strategies (will become official)

3.2.1 An assessment of the Eco-Tourism potential of the APA including infrastructural development for a camping area, bed and breakfast facilities, access and transport for potential tourists, food and water, sanitation facilities, visitor centers and potential for researchers of biodiversity and cultural heritage of Mata Atlantica.

3.2.2 management strategies for the conservation Zones in particular protection of the forest and water sources. (GPS, GIS)

3.2.3 Management strategies for the buffer Zones for the high priority conservation Zones (GIS, GPS)

3.2.4 Management strategies for the protection, improvement and maintenance of the Puri Indian sites of cultural interest.

3.2.5 The community management council names and involvement levels. The facilitator of the meetings and communication between people involved will have a specific agenda for success of the council. Arrangement of meeting times, how communication will occur and mitigation measures for the unlawful use of the protected areas will be outlined.

3.2.6. Management strategies for special areas that are not currently effective in preserving areas for biodiversity and cultural heritage.

3.2.7 Strategy for Environmental Education provision of the Adults and Children of the APA and its continued implementation.

3.2.9 the budget for the Management plan, broken down into each specific project suggested.

3.2.10 The outcomes expected from the implementation of the new strategies including assessment of future economic potential for the area and predictions of how the management will affect biodiversity levels.

4. Mitigating measures

A description of how the management strategy minimizes the threats to biodiversity and maintenance of cultural heritage.

5 Implementation

How each of the management strategies will come about. Costings per activity estimated and exactly who will be in charge of the operation. Short term and long term.

6 Monitoring

How the management strategy will be monitored to ensure most effective use and most beneficial outcome for the locals and the local biodiversity.

7. Assessment

The plan will be assessed before implementation, during implementation and afterwards on a 5 yearly basis to ensure that it is maintaining biodiversity and helping the local people gain alternative income.

8. Review.

The local committee will review the Plan and if in agreement, they will sign the plan and it will be effective under law immediately. All members of the committee should be fully aware at this stage of the potential effects of the plan and if there is not an agreement, the plan must be revised and updated so that its implementation will be immediate.