

## ABSTRACT

This thesis presents a proposal to model the processes of decision making in Waraira Repano National Park management in Venezuela. This research includes the identification of key management factors, linked actors and their relationships within the management system, as well as the prioritization of strategies to improve the compliance of the conservation objectives. To achieve the purposes of the investigation, the DPSIR approach (FPEIR in Spanish) is addressed to analyze the driving forces, pressures, states, impacts and responses of the management system. The Social Network Analysis (SNA) is developed to study stakeholders and their relationships within the network. The Analytic Network Process (ANP) is used to model the decision making system.

The study includes the analysis of the management problems of national parks, with emphasis on Waraira Repano in Venezuela. It also sets out relevant factors in the management of the National Park and proposes a number of indicators to monitor main attributes of the protected area, in particular those linked to biodiversity conservation and environmental goods and services preservation. Similarly, this thesis also studies stakeholders linked to protected area management, both internal and external to their managerial system. It also discusses the relationships among stakeholders in the National Park to document the flow of information within the management network.

Finally, the research builds a model representing the decision problem, capturing main interactions occurring in the area, taking into account their natural and social complexity. This analysis also includes the identification of key decision criteria, grouping the elements into components with common characteristics. It also analyzes relationships among elements within the network.

To achieve the research objectives, a group of experts with extensive knowledge of the protected area and their managerial programs was consulted. Using diverse methodological techniques, including focus groups, key information was gathered and validated. Data analysis was supported by using software such as Superdecisions® and UCINET®. Both computer programs provide tools to calculate and graph the results and to facilitate the analysis.

This research enables the identification of 54 relevant factors in the management of the National Park, which were prioritized after their evaluation and validation by a panel of experts. This prioritization was based on their relevance to reach protected area objectives. This dissertation also includes analysis of 64 actors and their relationships to each other, within the decision-making processes related to protected areas management.

Finally, the research establishes the decision model consisting on five clusters, which grouped 18 criteria and 7 alternatives. This model helps to prioritize the most important management strategies for this area, and it could also contribute to develop and apply similar models in other protected areas in Venezuela and the world.