



PROTECTION MOUNTS FOR VOLCANIC ISLAND

Areas of land may be officially designated as reserves, yet remain vulnerable, due to shortages of the resources necessary for their proper management. This has led to the problem of so-called 'paper parks': reserves protected only in name. In Nicaragua, FFI and MARENA (Ministry of Environment and Natural Resources) have been working together to address this issue on one of the world's largest freshwater islands, which is now set to benefit from a multi-faceted conservation project for its Natural Reserve.

The island of Ometepe, in Lake Nicaragua, is formed by two volcanoes linked by a wetland isthmus. The range of altitudes on the island, combined with its position between Nicaragua's dry tropical Pacific and wet tropical Atlantic coasts, subject it to a dramatic range of climates. For this reason all the major habitat types of Nicaragua can be found there, making it a significant store of biodiversity - potentially the most diverse of any area its size in Nicaragua. For example, it is a haven for bird species that have declined dramatically elsewhere, such as the yellow-necked parrot (*Amazona auropalliata*),

and surveys have revealed its importance for bird species migrating across the Americas.

The Maderas Volcano Natural Reserve has been vulnerable in the past to threats such as sport hunting, wildlife trafficking and agricultural encroachment on protected areas. FFI and its partners will address these through developing a comprehensive comanagement entity, which will be responsible for the implementation of the newly approved management plan. This will be made possible with the support of the Darwin Initiative, British American Tobacco (Central America) and the US Fish & Wildlife Service. The new management regime will be drawn from the island's key stakeholders, including local conservation NGOs (Fundación Entre Volcanes), representatives of all the communities and the municipal government.

The infrastructure of the Natural Reserve will be developed, with new personnel (park guards and area administrator), ranger posts and trails for visitation and access to the volcano crater. Awareness materials for the local area will be produced, and the reserve will be promoted in the media at national and international levels, with support from the Nicaraguan Ministry of Tourism. The planning process has been carried out in partnership with Friends of the Earth (Spain) and MARENA, who originally identified the island as a national biodiversity conservation priority.

Increasing numbers of tourists have been visiting the island in recent times, and the plans will ensure that the reserve can take advantage of this. Properly conducted ecotourism, in contrast to what was previously unregulated, should deliver self-sustaining income for the reserve from tourist gate fees. FFI has also been working with the indigenous communities of the wetland isthmus on the island since 2003, focusing on natural resource management and developing small-scale ecotourism, to ensure that they also reap the benefits from this positive initiative. Another essential element of work will be not only to conduct full surveys of the island's biodiversity, but also to continue to monitor it, ensuring that its biological integrity remains protected. The entire process of planning the management of the reserve has drawn lessons from other projects across Nicaragua, and will serve as a model for future work on other protected areas in the country.

Two of the largest birds recorded on Ometepe: Brown pelican (above); Magnificent frigate bird (below). The island is host to a high number of bird species and is believed to be important for those that migrate across the Americas.

