

## CONSERVATION STRATEGIES IN NESTING AREAS

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Tortuguero (Costa Rica) is one of the main nesting areas worldwide for green turtles, with occasional sightings of other species (leatherbacks, hawksbills and loggerheads). Plastic waste, light pollution, nest and hatchling predation by dogs, and vegetation loss have been identified as the main local threats for sea turtles and their habitats. The present work establishes several strategies aimed to minimize the negative impact in Tortuguero by focusing on: light pollution mitigation, waste reduction on the beach, no plastic policies for local businesses (bars, restaurants, hotels, etc.), increase of vegetation density next to the beach, and controlling the dog population through neutering campaigns. To achieve this, we have implemented a specific action plan for each of the identified threats. Red Light Program: Through monthly light surveys we identified the light sources that had an impact on the beach and could potentially jeopardize sea turtle orientation during the nesting and hatching processes. The establishments identified were informed and lectured about light pollution and its consequences on the sea turtle lifecycle. We facilitated the change process to red LEDs and light deflectors. Moreover, we contacted ICE (Costa Rican Electrical Institute, the public company in charge of urban light) to make the switch to “turtle-friendly” streetlight. As a result, we have observed a decrease in light pollution in areas close to the beach. In addition, the participants in this program (small hotels) were rewarded with a diploma to recognize their effort. ‘Desembolsate Tortuguero’ Program: We collaborated with local groceries through meetings and agreements to establish a payment policy for plastic bags. We managed the production and distribution of alternative fabric bags, and cooperated with the groceries’ owners to make the fabric bags available in their stores. As part of the program, more than 450 bags were distributed in the local groceries. The program started thanks to external economic support but currently it is financially independent, yielding a profit that is reinvested in the community. Veterinary campaigns: We organized veterinary campaigns to make up for the lack of a veterinarian center in the area. These campaigns are mainly focused in neutering dogs and cats to control the population, but also include educational sessions for the community. The campaigns take place at least twice a year with an average of 50 sterilized animals. Blue Flag Program: This Costa Rican governmental program is often met with a lukewarm reaction from the local communities. To improve their involvement, we organized beach clean-ups, and started a tree nursery program with native species aimed to reforest the most degraded areas. As a result, the response of the population improved noticeably. To sum up, the involvement of the community in actions aimed to the preservation of wildlife is key for the success of any program. All the programs and campaigns must be monitored in order to identify the key successful strategies that would allow to achieve the long-term goals.