

Bridging people and sea turtle conservation through a circular economy: a long-term model for sustainability

Augusto C. C.D. da Silva, Jaqueline C. de Castilhos, Ana C. J. Marcondes, Alexsandro Santos, Berenice M. G. da Silva, Jose H. Becker, Tuta Burtet, Luciana Medeiros, Valeria R.F. Silva, Bruno Giffoni, Maria Ângela Marcovaldi, Gustavo Stahelin

Fundação Projeto Tamar, Brazil; neca@tamar.org.br

Introduction

The Projeto Tamar has experienced great success protecting sea turtles in Brazil since its creation in 1980. Currently, four populations of turtles (*Caretta caretta*, *Eretmochelys imbricata*, *Lepidochelys olivacea*, and *Dermochelys coriacea*) that occur along the Brazilian coast show a consistent growth trend. At the same time, the *Chelonia mydas* population is stable. This recovery is a reflection of successful research and protection strategies in nesting and foraging grounds combined with initiatives that promoted fishermen's and local communities' participation in sea turtle conservation within 22 localities distributed across eight Brazilian states.

Methods

Social inclusion initiatives developed during the early stages of Projeto Tamar in the 1980s remain an important strategy for conservation, becoming an organic part of the institution's sustainability strategy. Such initiatives include support for t-shirt manufacturing and artisan groups formed by women from traditional communities, like fishermen, caiçaras, quilombolas, and indigenous groups. They were implemented in locations with low social and economic incentives and are strategic for conservation. Over the past 40 years, these actions promoted the establishment of a circular economy, where social inclusion and sustainability initiatives from the Fundação Projeto Tamar became interdependent.

Circular Economy



Research and monitoring **1**



Environmental education and social inclusion **2**



Cultural Appreciation **3**



PROJETO TAMAR



LOCAL COMMUNITIES



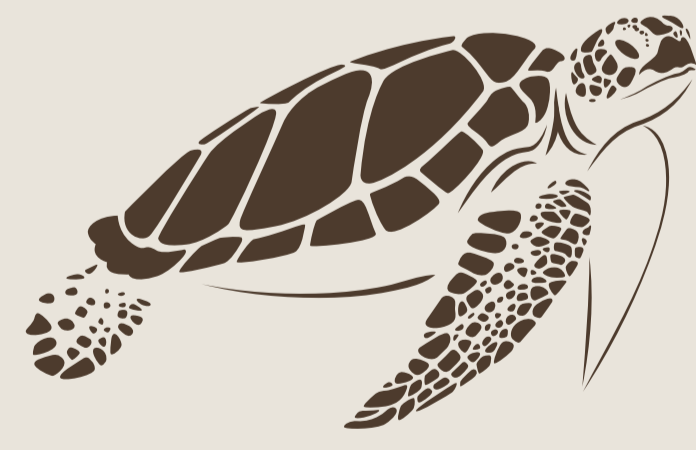
Results



60 families working in the clothing factory and around **100 families** from artisan groups.



Self-sustaining actions already contribute to **75%** of the resources required to perform regular conservation activities.



All **5 sea turtle** species recovering (increasing trends for 4 spp. and 1 stable)



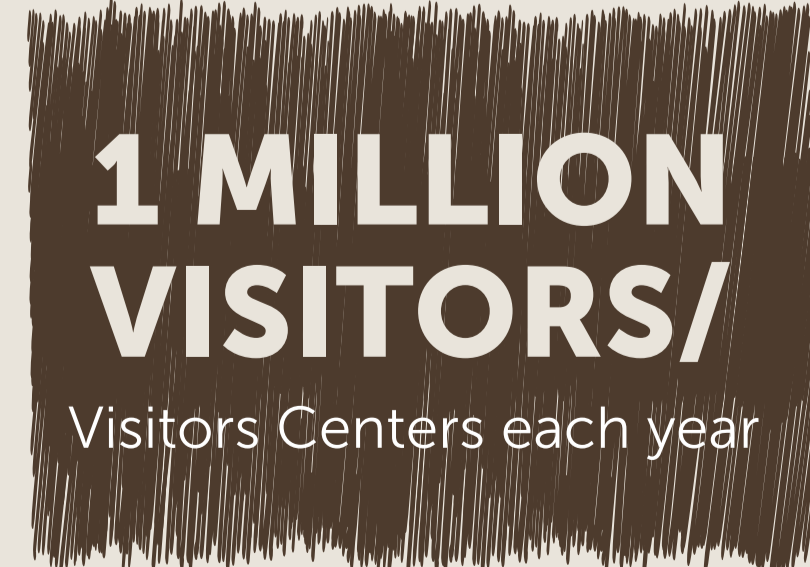
The clothing factory managed to retain 50% of their employees during the pandemic COVID 19. Efforts focused on producing cotton protective masks, assisted by the artisan sewing groups.



Around **25.000** nests and **2 million baby turtle** protected each year



1.800 job opportunities created

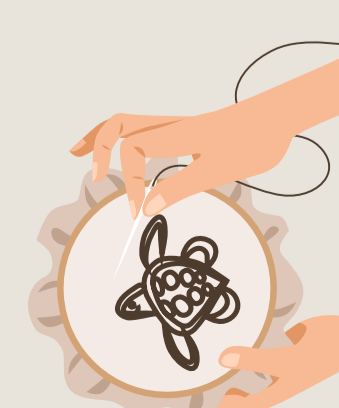


1 MILLION VISITORS/ Visitors Centers each year



13.000 pieces/month by two Tamar-owned clothes manufacturing facilities

Artisans sell about **3.000** pieces per month



1 Lesser tourism potential: product manufacturing and hand crafts

2 Greater tourism potential: visitor centers, shops, ecotourism tours