

VALUATION OF ECOSYSTEM SERVICES PROVIDED BY COZUMEL REEFS NATIONAL PARK AND COZUMEL ISLAND FLORA AND FAUNA PROTECTION AREA

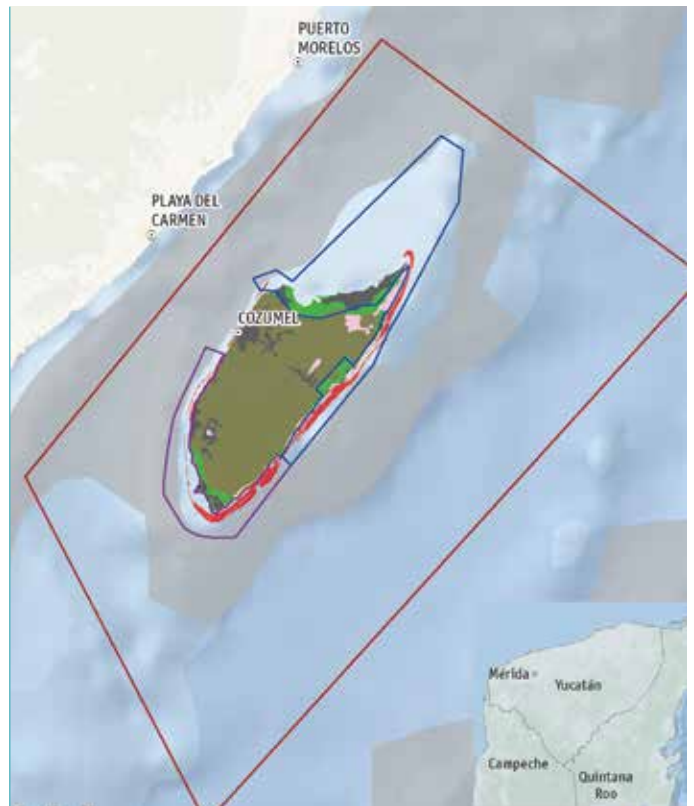


PHOTOS: CONANP

Protected areas (PAs) benefit society by providing a range of ecosystem services. These include food, clean water, climate regulation, pollination, protection from storms, and places for recreation. Nonetheless, the value of these services is not broadly understood. Benefits also tend to be dispersed or are wrongly considered infinite. As a result, they are “invisible” within the economic system, and are therefore not valued.

In Cozumel, lack of information about the economic and social benefits that the area generates has kept it from being valued as a key contributor to human wellbeing and development at both local and regional levels. This situation has created challenges for natural resource management, as well as for promoting well-planned and sustainable coastal development in a context characterized by mass tourism. Additionally, the Park has limited resources for management, which makes it difficult to adequately address threats.

The purpose of this document is to communicate the benefits that Cozumel Reefs National Park and Cozumel Island Flora and Fauna Protection Area generate for society and the economy. For this purpose, a study was carried out to quantify the economic values of several important ecosystem services provided by these PAs.



Cozumel Reefs National Park, which covers an area of 11,988 hectares, is characterized by its biodiversity. It is home to numerous marine species, many of which are at risk of extinction. Cozumel Island Flora and Fauna Protection Area, covering 37,829 hectares, is characterized by its diversity of coastal ecosystems, including coastal lagoons and mangrove swamps. During 2016 UNESCO incorporated Cozumel Island to the World Network of Biosphere Reserves as part of the Man and Biosphere Program with a total of 134,624.17 hectares (1,346.24 km²).

<p>Recreation based around coral reefs, which sustain tourism on the Island</p>	<p>The economic value of ecosystem services provided by mangroves and coral reefs</p>	<p>The ecosystem service of protecting the Island's population from storms, hurricanes, and other meteorological events</p>

Por encargo de:

MAIN FINDINGS



Ensuring that Cozumel's reefs are well conserved provides a value of **4,662 million pesos** (USD 255 million) per year for the 1.8 million tourists who dive or snorkel each year on the Island's reefs



The economic value of the **3,654 hectares** of mangroves within the two Federal PAs is **81.7 million pesos** (USD 4.5 million) per year.



The economic value provided by the coral reefs within the two Federal PAs, in terms of coastal protection and nutrient cycling is **611 million pesos** (USD 33.7 million) per year.



12% less tourists would visit Cozumel if degradation of coral reefs continues. This would generate local economic losses of 1.5 billion pesos (USD 83 million) per year



65% of Cozumel's population is less vulnerable to flooding and storms as a result of the presence of coastal-marine ecosystems (reefs, mangroves, dunes, and others)

PROTECTED AREAS PROTECT PEOPLE



PHOTO: CONANP

RECOMMENDATIONS

1. Inform and strengthen Quintana Roo State's Strategic Plan 2017 – 2022 as well as decision making regarding Environmental Impact Statements.
2. Adopt appropriate means within the tourism industry to implement good practices aimed at maintaining the Island's ecosystems.
3. Increase management budget allocated to Cozumel's two Federal PAs to ensure that users follow best practices, and to identify and report illegal practices more broadly.

Based on these results, a priority for decision-makers at all levels of government is to take actions to secure the ecosystem services provided by Protected Areas, which are the foundation of regional and national economies. The solutions may seem complex, but the benefits for human wellbeing and economic activity are well worth the cost.



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