

CORAL REEF RESTORATION TECHNIQUES IN SOUTH BAJA CALIFORNIA, MEXICO



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INTRODUCTION:

Coral reefs provide a large number of ecosystem services such as fishing resources, protection of the coastline and tourist attraction (Moberg y Folke 1999), which have social, economic and environmental implications.

Recent studies affirm that around 850 million people depend directly on these ecosystems (Burke et al., 2011), and the services they provide have an annual value close to 30 billion US dollars (Conservation International 2008).

According to the Inter-American Association for the Defense of the Environment (AIDA), exist **five issues** of high importance that affect corals:

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1) SEDIMENTATION
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2) MASSIVE FISHING METHODS
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3) CLIMATE CHANGE
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4) OCEAN ACIDIFICATION
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5) IRRESPONSIBLE TOURISM

CORAL REEF RESTORATION:

At the regional and local level, passive and active actions have been implemented: the "passive" promote the natural recovery of the reefs by means of management measures and the "active" involve direct intervention in the ecosystem for their recovery (Rinkevich 2006, Edwards 2010).

Active restoration is exercised when a reef is desired to recover to a desirable level, in combination with management actions to reduce anthropogenic stress (such as overfishing, nutrient discharge, sedimentation Edwards y Gomez, 2007).

RESTORATION ACTIONS:

To allow any possibility of recovery in places where chronic human impacts occur, it may be required to implement passive followed by active restoration interventions.



LEGISLATION IN MEXICO

We do not have specific legislation for the protection of coral reefs. Legal protection is fragmented into various laws:

- General Law of Wildlife
- General Law of Equilibrium and Protection of the Environment, its Regulation on Environmental Impact Assessment and Protected Natural Areas. NOM-059- SEMARNAT-2010 (lists species of flora and fauna in some risk condition) and NOM-022-SEMARNAT-2003 (establishes the preservation, conservation, and restoration of coastal wetlands).
- Etc

If we continue with the lack of protection, we could lose our Mexican reefs in a period of 10 to 20 years, due to a deficient regulation.

OBJECTIVE:

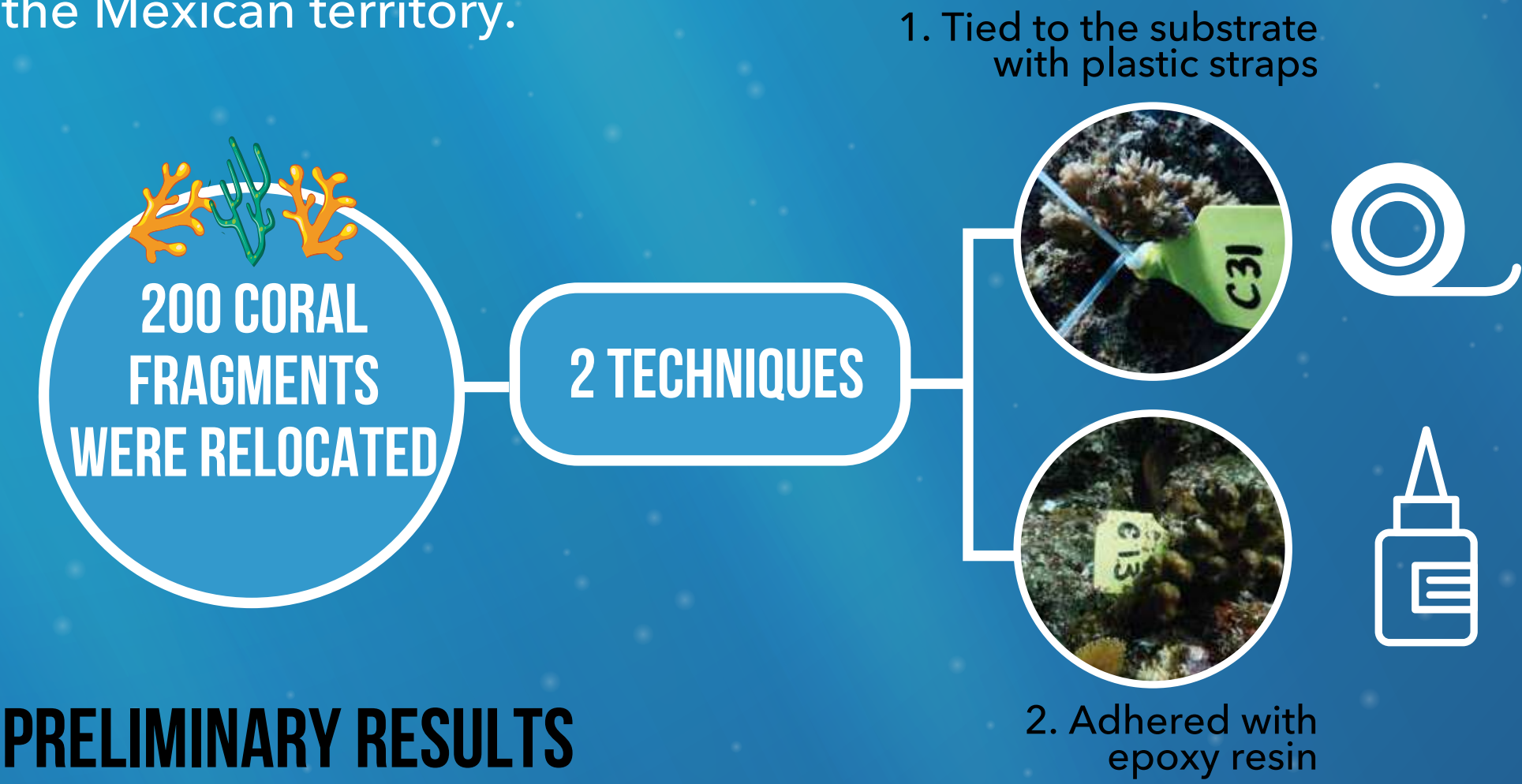
Gather information on coral restoration projects in the world and know their situation and implications in the Mexican territory, and evaluate the success of coral restoration strategies based on the population dynamics of corals.



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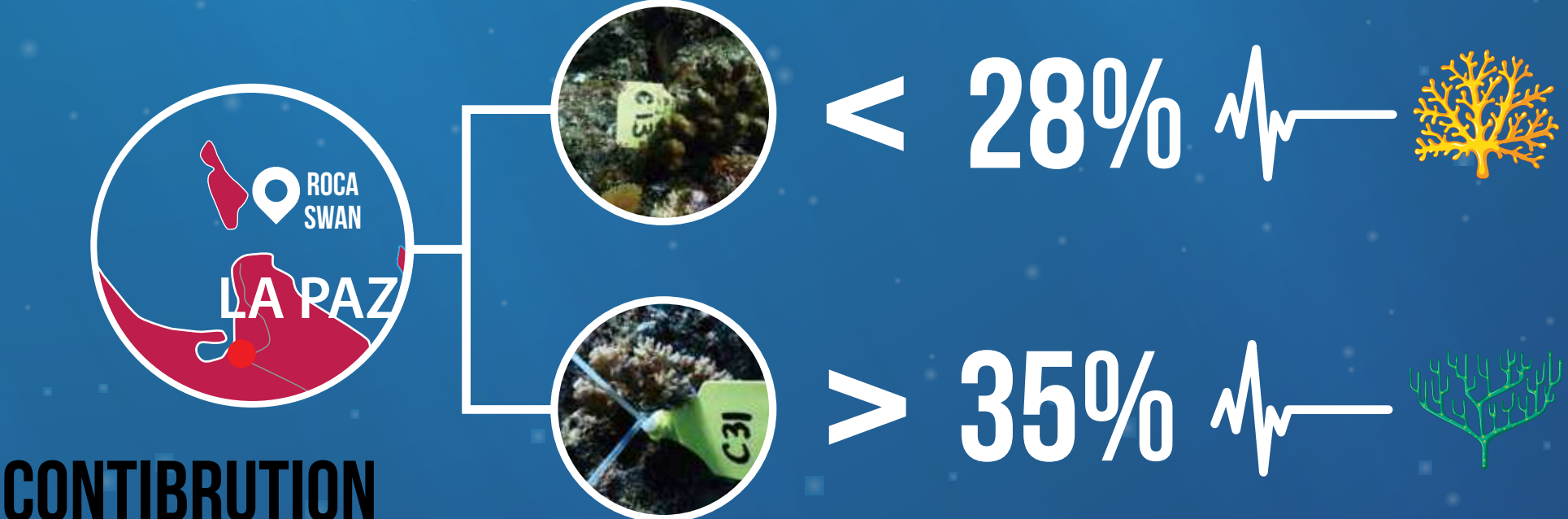
METHODOLOGY:

We carry out a research of coral restoration projects in Mexico. We designed a survey with qualitative information on; "Coral Restoration in Mexico", and sent it to several people related projects in the Mexican territory.



PRELIMINARY RESULTS

Thanks to the bibliographic search and the survey, I realize there are many coral restoration projects, but the data have not been published. Regarding field work at the coral restoration sites, we only have results from Roca Swan until may 2018.



CONTRIBUTION

It would be worthwhile to gather efforts and publish or share the information, to know the methods, species, type of techniques, conditions of the site and the results over time, in this way, learn from what has already been done and thus design better restoration projects.

I will formally publish the realization of my study to help the community or general public interested and thus, serve to know the dynamics of coral restoration in my study sites. And depending on the future results we propose to make certain recommendations.

AKNOWLEDGMENTS

