

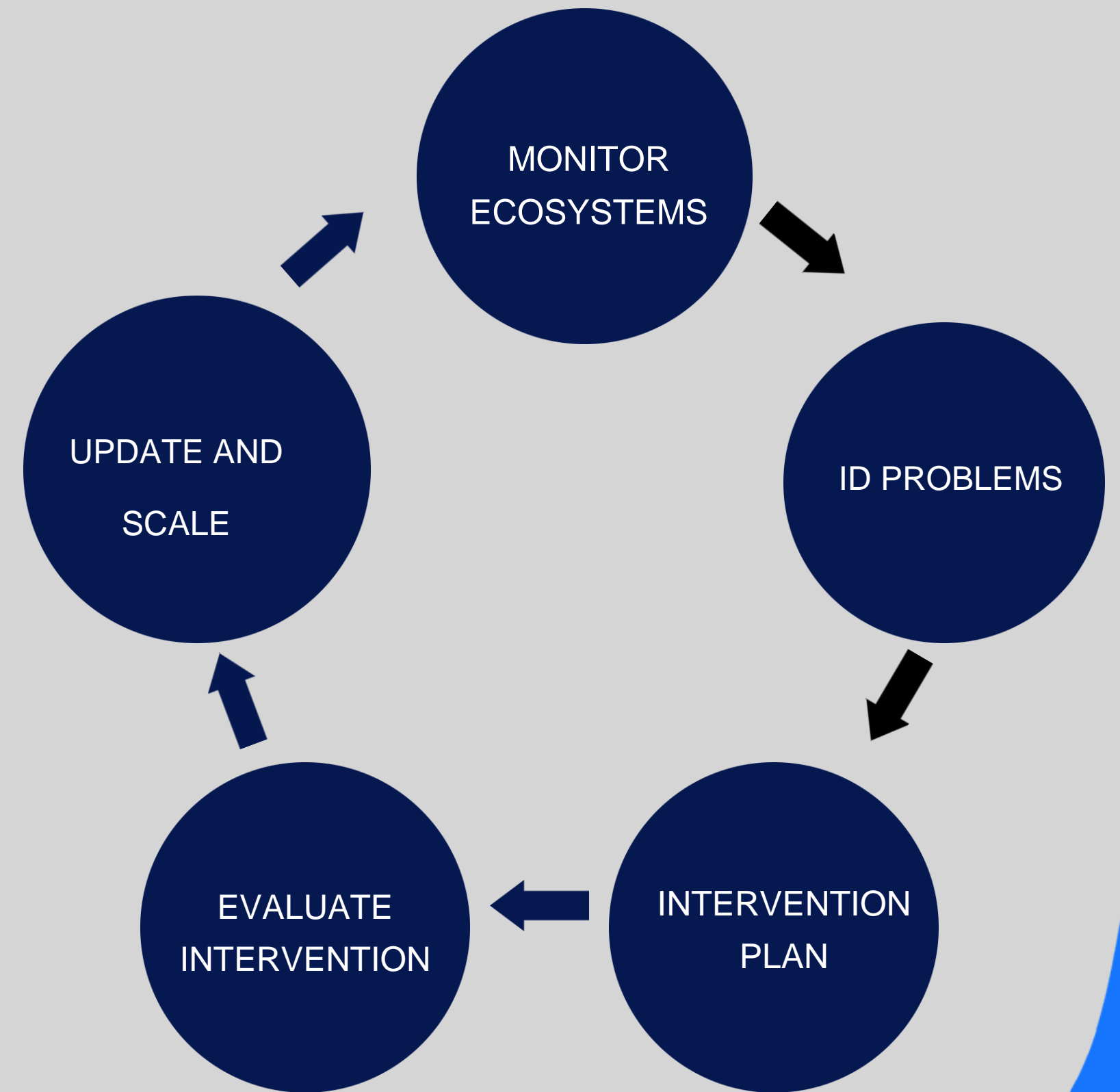
SELECTION OF INTERVENTION SITES

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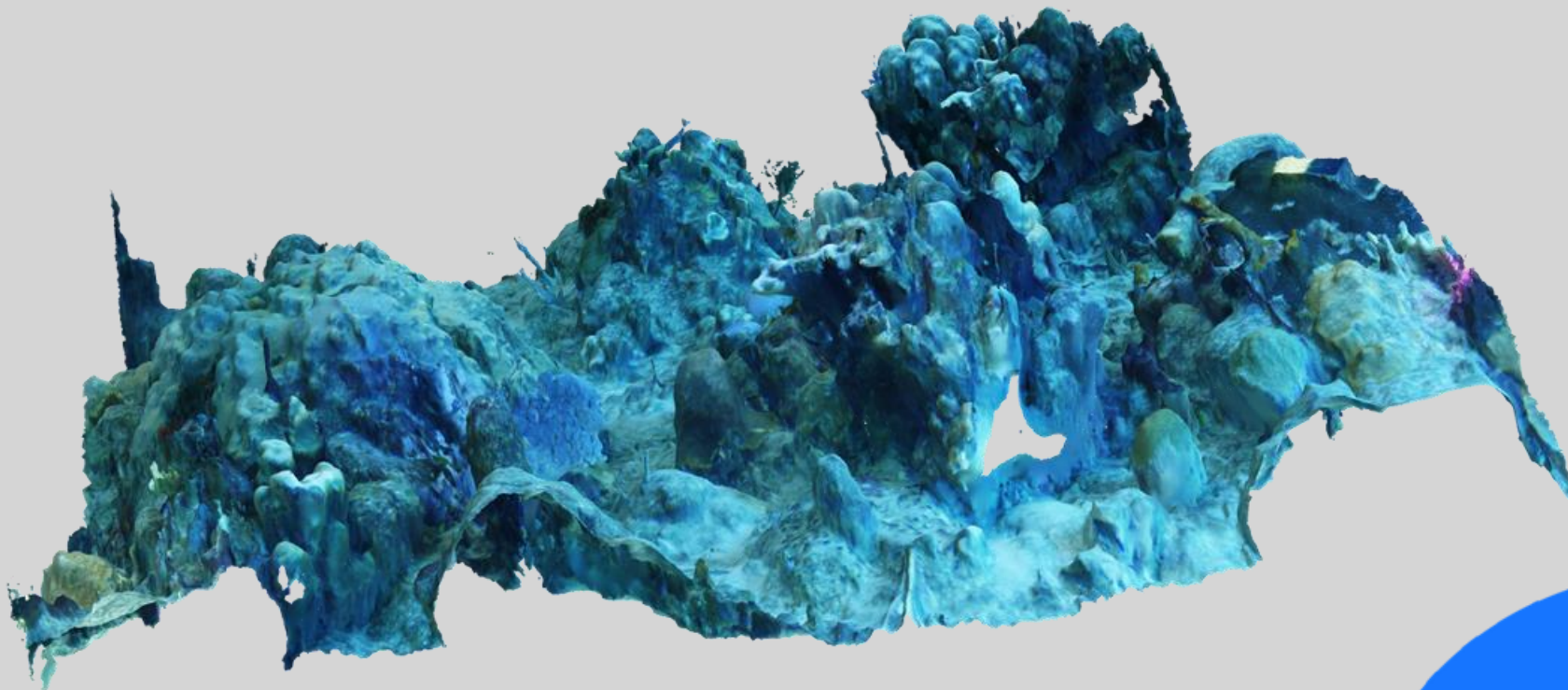
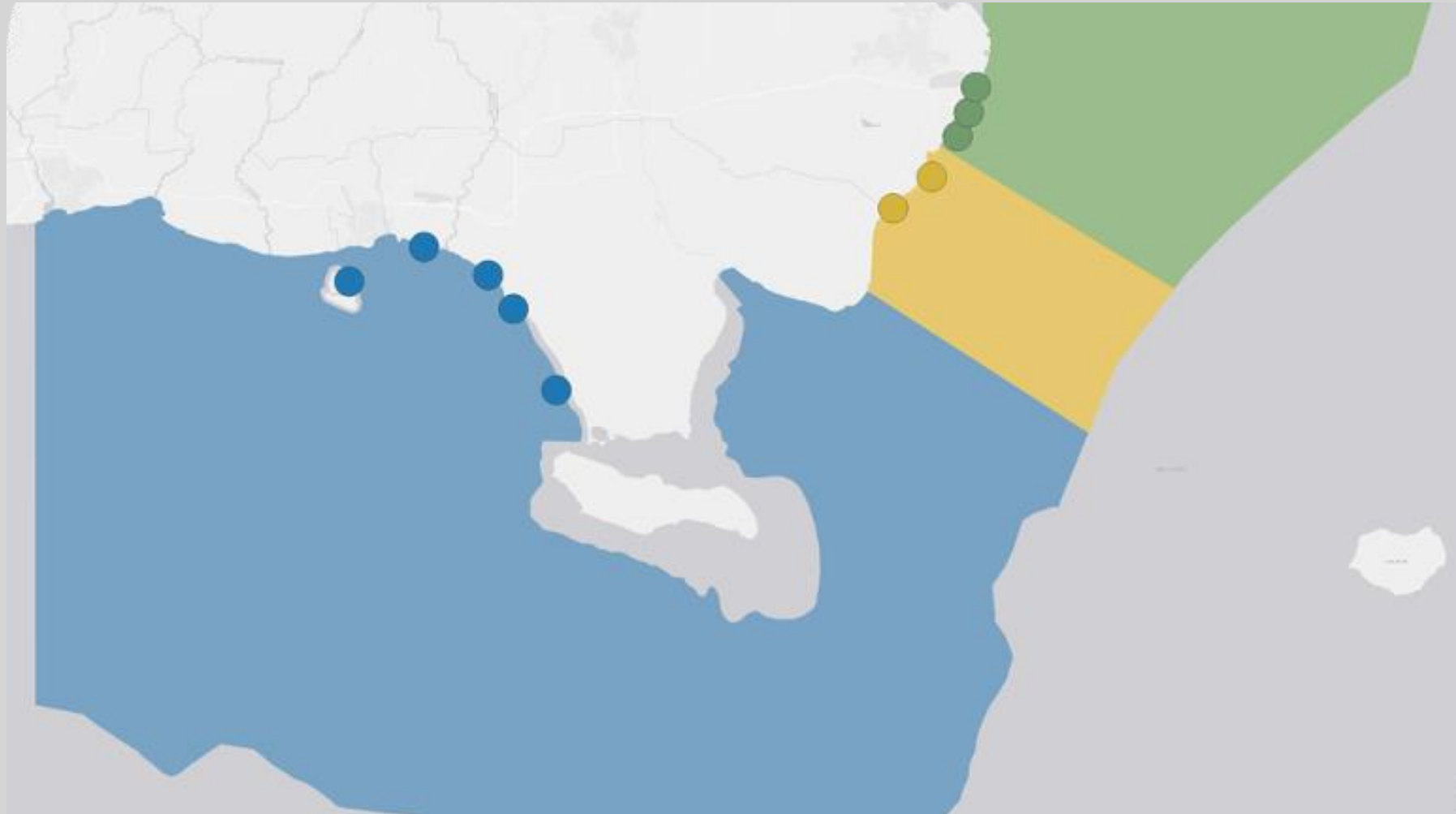
SELECTION OF INTERVENTION SITES

- 1 Steps for intervention
- 2 Importance of permanent monitoring of reefs
- 3 Site selection criteria
- 4 Experimental Design
- 5 Intervention sites DR

1 Steps for intervention



2 Importance of permanent monitoring





Loss of 43.7% of coral cover throughout SAMAR since the arrival of SCTLD in 2022 and massive bleaching mortalities in 2023



Bull Mar Sci. 98(4):507–508. 2022
<https://doi.org/10.5343/bms.2022.0015>

Coral reefs of southeastern Dominican Republic hit by two simultaneous epizootic events

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 Andreina Valdez-Trinidad ¹, Aldo Croquer ^{3, 4}, Rita I Sellares-Blasco ¹

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GULF AND CARIBBEAN FISHERIES INSTITUTE PARTNERSHIP

STONY CORAL TISSUE LOSS DISEASE AND OTHER DISEASES AFFECT ADULTS AND RECRUITS OF MAJOR REEF BUILDERS AT DIFFERENT SPATIAL SCALES IN THE DOMINICAN REPUBLIC

Aldo Croquer^{1,12*}, Someira Zambrano¹, Samuel King¹, Daniel A. Reyes¹, Rita I. Sellares-Blasco⁴, Andreina Valdez-Trinidad⁴, Maria F. Villalpando⁴, Yira Rodríguez-Jerez⁵, Estefany Vargas-Pérez⁵, Camilo Cortés-Useche⁶, Macarena Blanco-Pimentel⁶, Johanna Calle-Triviño⁶, Rebecca García-Camps⁷, Ana C. Hernández-Oquet⁸, Ruben Torres⁹, Iker Irazabal⁹, Laura Díaz-Acosta¹⁰, Dorka Evangelista¹¹, and Emy Miyazawa¹²

3

Site selection criteria

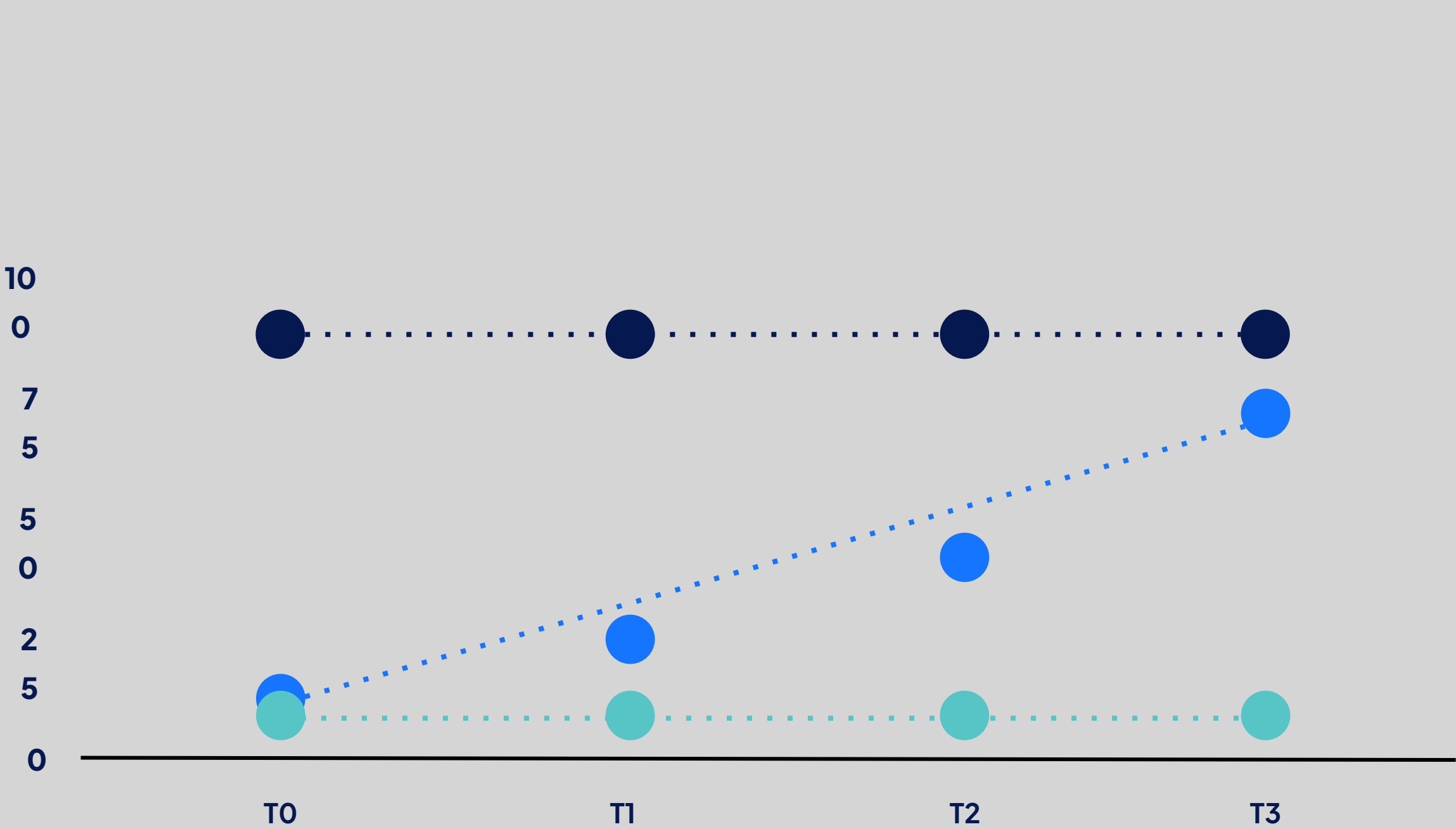
- Goal: re-populate a species, increase coral cover, ..
- Natural presence of the species
- Local threats
- Logistic cost vs restoration plan
- Economic interest: coastal protection, tourism



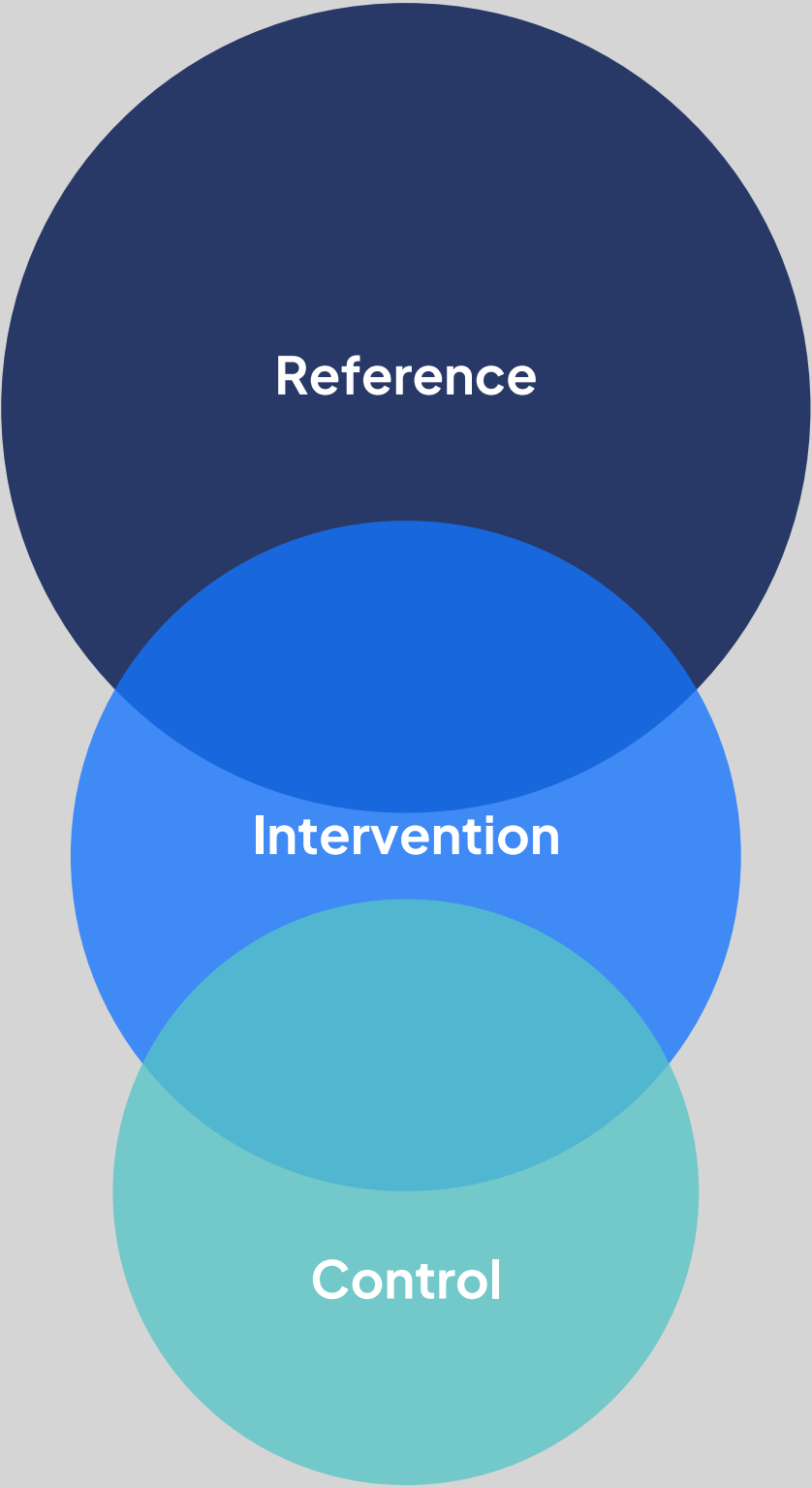
<https://tnccaribgis.users.earthengine.ap>

[p/view/caribbean-reef-restoration-tool](https://tnccaribgis.users.earthengine.app/view/caribbean-reef-restoration-tool)

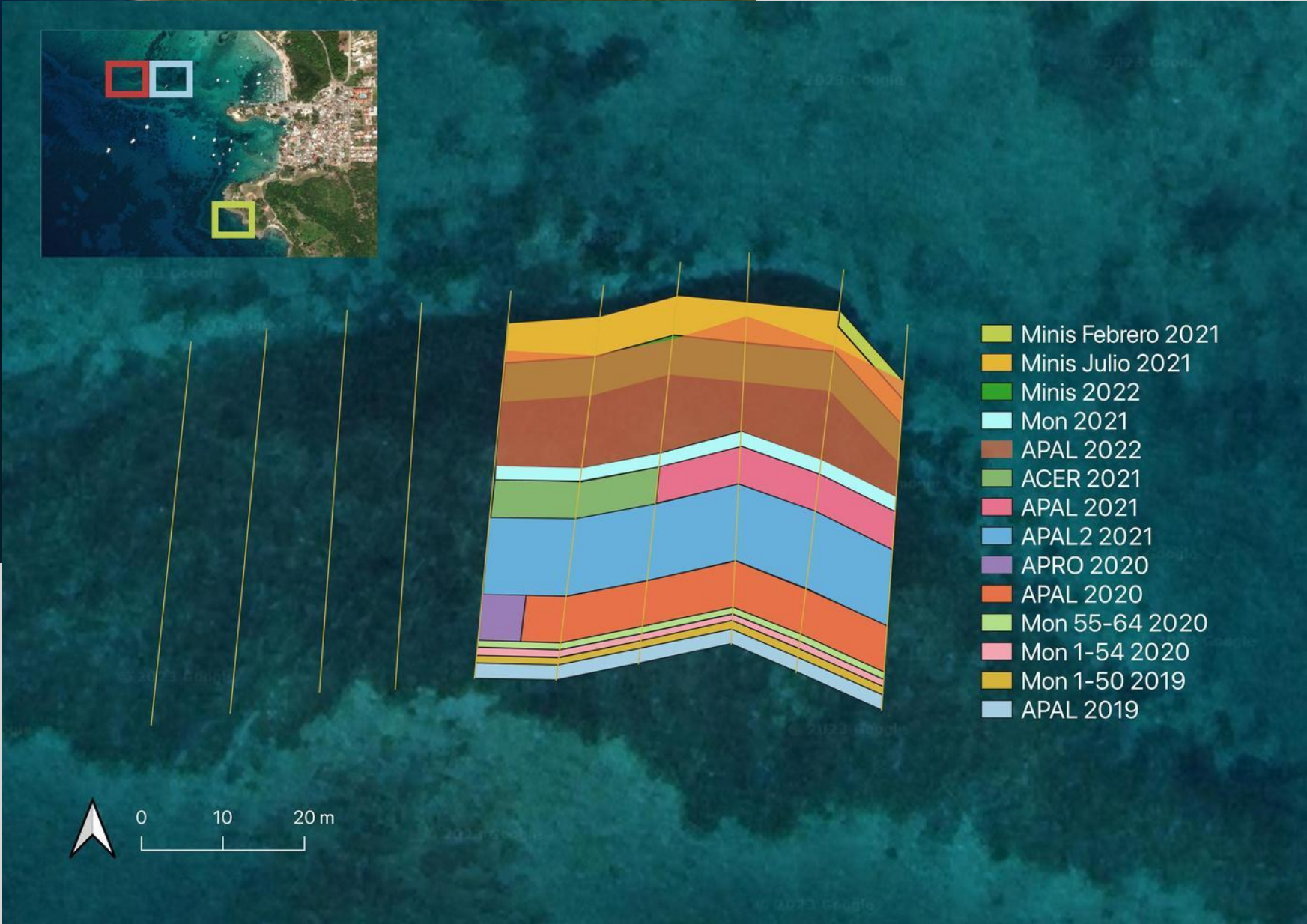
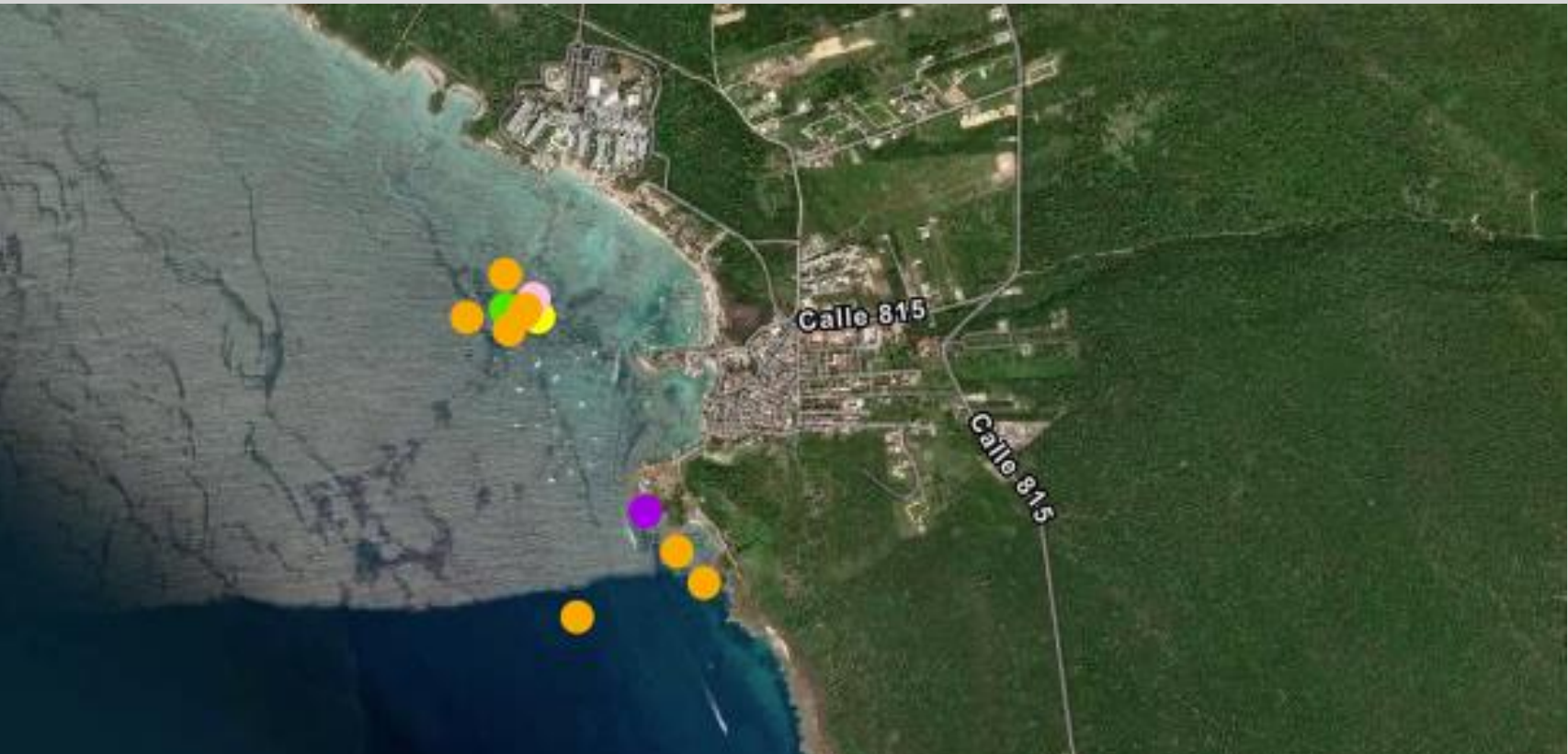
3 Experimental Design, based on your goals




Chapman
1998

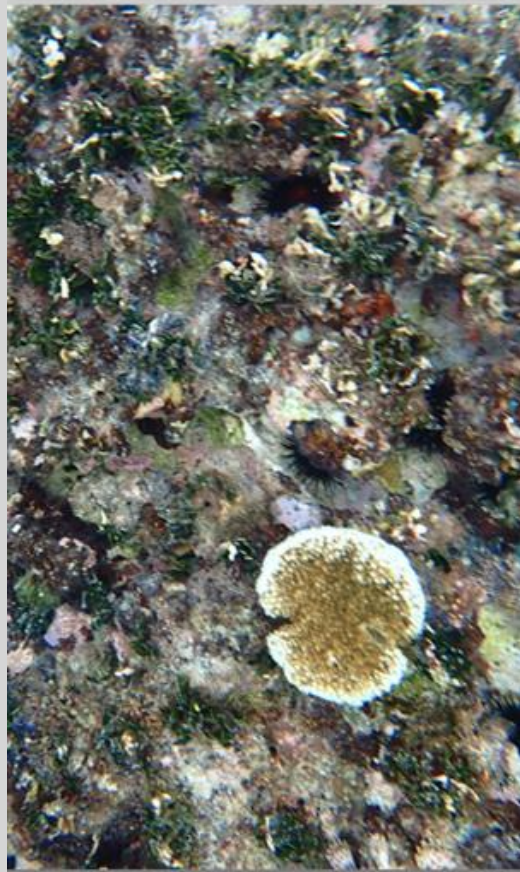


- Control
- Intervention
- Nursery
- Outplant
- Reference





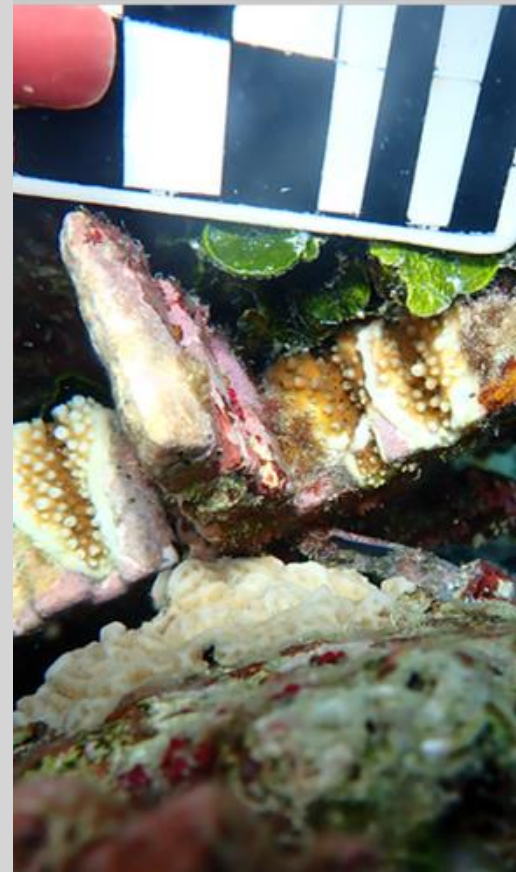
Combination of asexual and sexual
 techniques (recruits 2 to 5 more
 resilient than asexual frags and
 wild colonies)



BENTHIC COVER



FISH COMMUNITY
STRUCTURE AND
BIOMASS



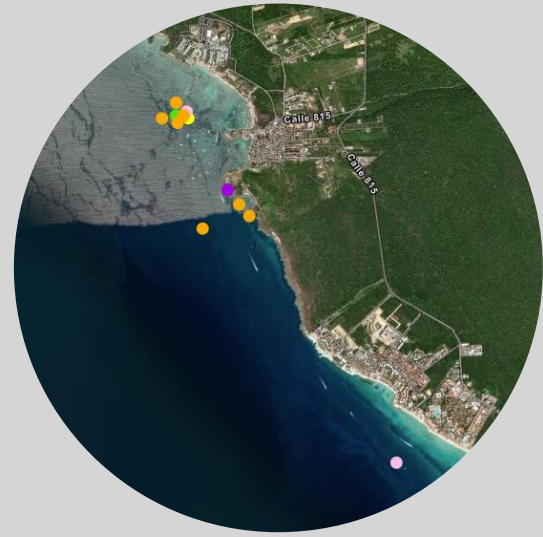
SURVIVORSHIP AND
GROWTH OF
FRAGMENTS
(ASEXUAL AND
SEXUAL)



STRUCTURAL
COMPLEXITY



FUNCTIONALITY



BLEACHING/DISEASE

INCREASE GENETIC DIVERSITY
COMBINATION OF TECHNOLOGIES
OUTPLANT IN COLD SEASON

LOST OF SPECIES

ASSITED FERTILIZATION
GENETIC BANKS

LOSS OF CORAL COVER

INCREASE LOGISTICS (COST): MORE
SITES, MORE PEOPLE
EX. SPAWNING

