



ALLEN CORAL ATLAS

A global collaboration using satellite imagery to map and monitor the world's coral reefs in unprecedented detail. Powered by Arizona State University.

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Overview

1. About the Allen Coral Atlas
2. Informing SDG 14: Life Below Water
3. Features of the Atlas
4. Data for conservation decision-making



The Allen Coral Atlas

The first ever globally consistent, high resolution mapping and monitoring system of the world's shallow tropical coral reefs.

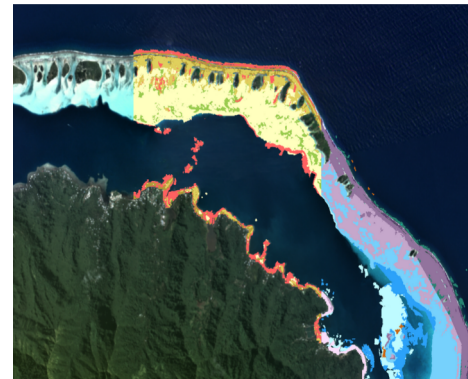
It started with four goals...



Create a seamless
satellite mosaic



Monitor bleaching in
real-time



Map the world's reefs
with a consistent
method



Create a community of
coral reef
conservationists,
scientists, and educators

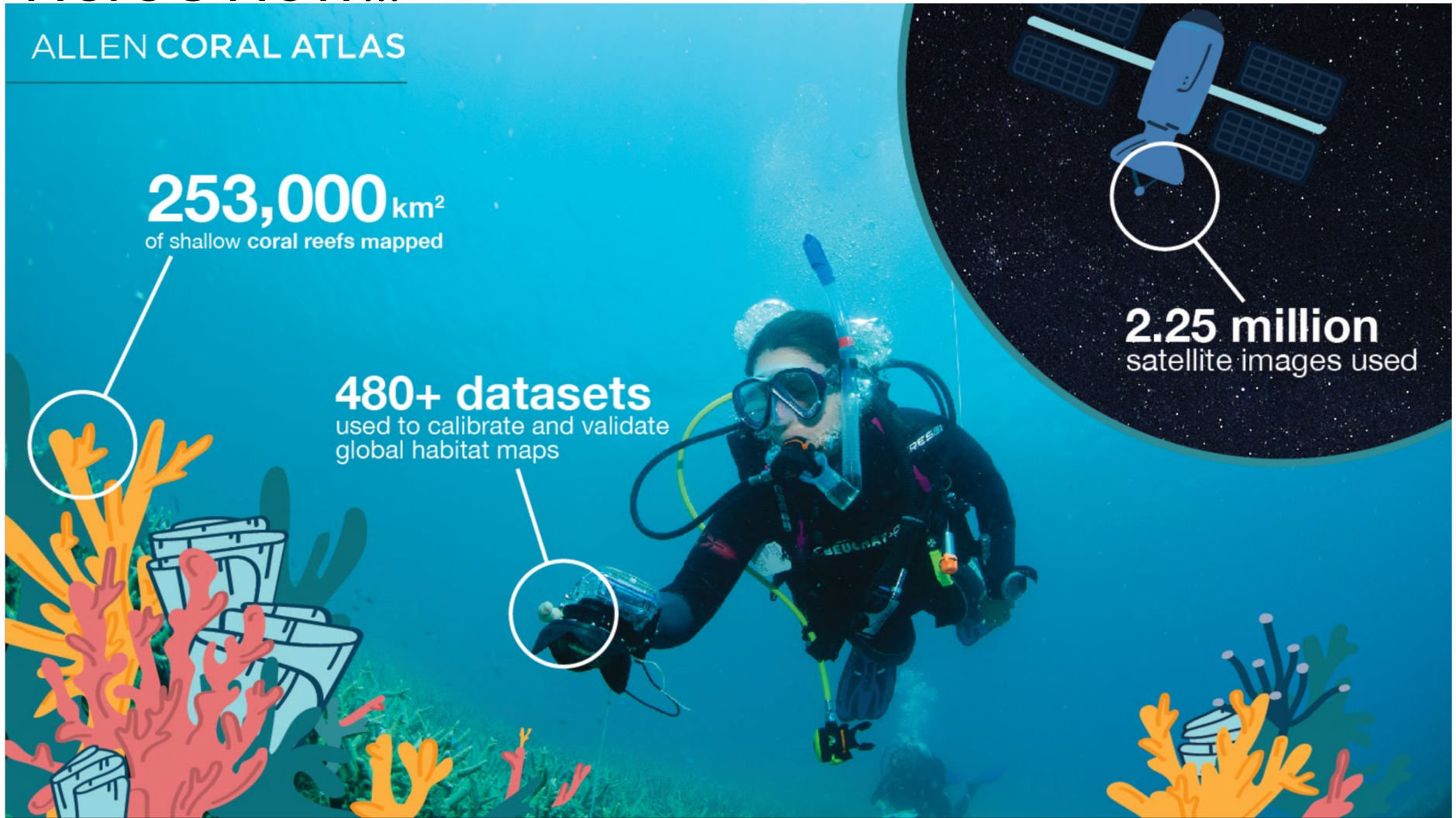
Here's How...

ALLEN CORAL ATLAS

253,000 km²
of shallow coral reefs mapped

480+ datasets
used to calibrate and validate
global habitat maps

2.25 million
satellite images used



SDG 14: Life Below Water

Conserve and sustainably use the oceans, seas and marine resources.



More than 500 million people depend on coral reefs worldwide.

Coral reefs prevent an estimated \$94 million in flood damages every year.



About 25% of marine species are supported by coral reefs



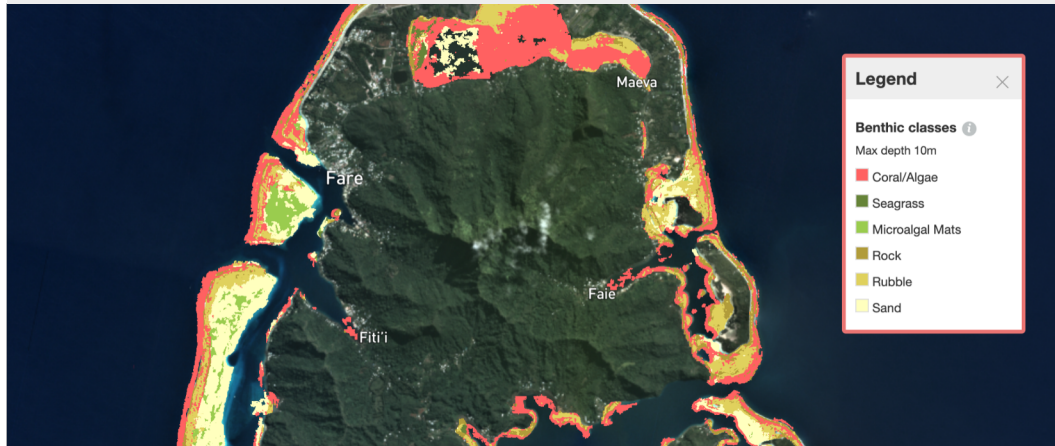


SDG 14: Life Below Water

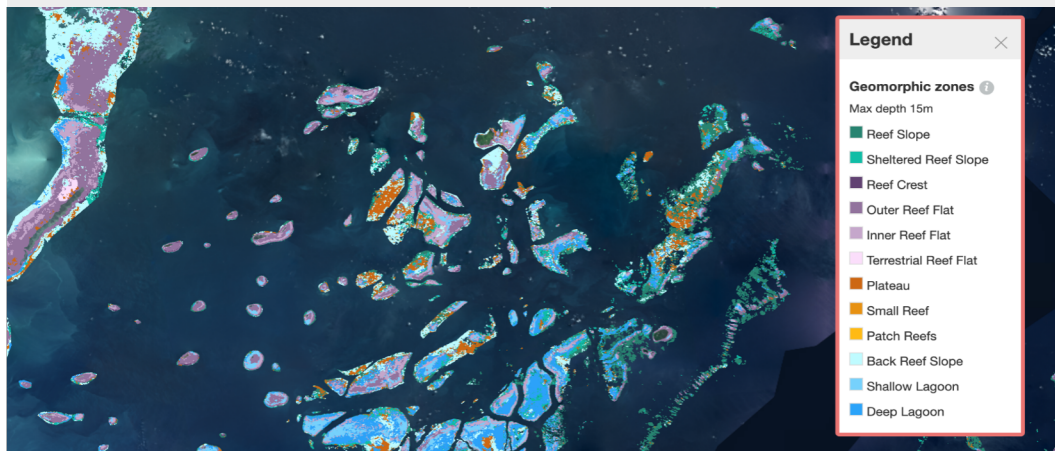
Target 14.2: By 2020, sustainably manage and protect marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience, and take action for their restoration in order to achieve healthy and productive oceans

Target 14.5: By 2020, conserve at least 10 percent of coastal and marine areas, consistent with national and international law and based on the best available scientific information

Benthic Maps (Ocean Composition)



Geomorphic Maps (Seascape Structure)



Global Habitat Maps

Downloadable data on a reef's benthic and geomorphic make-up

Use Cases

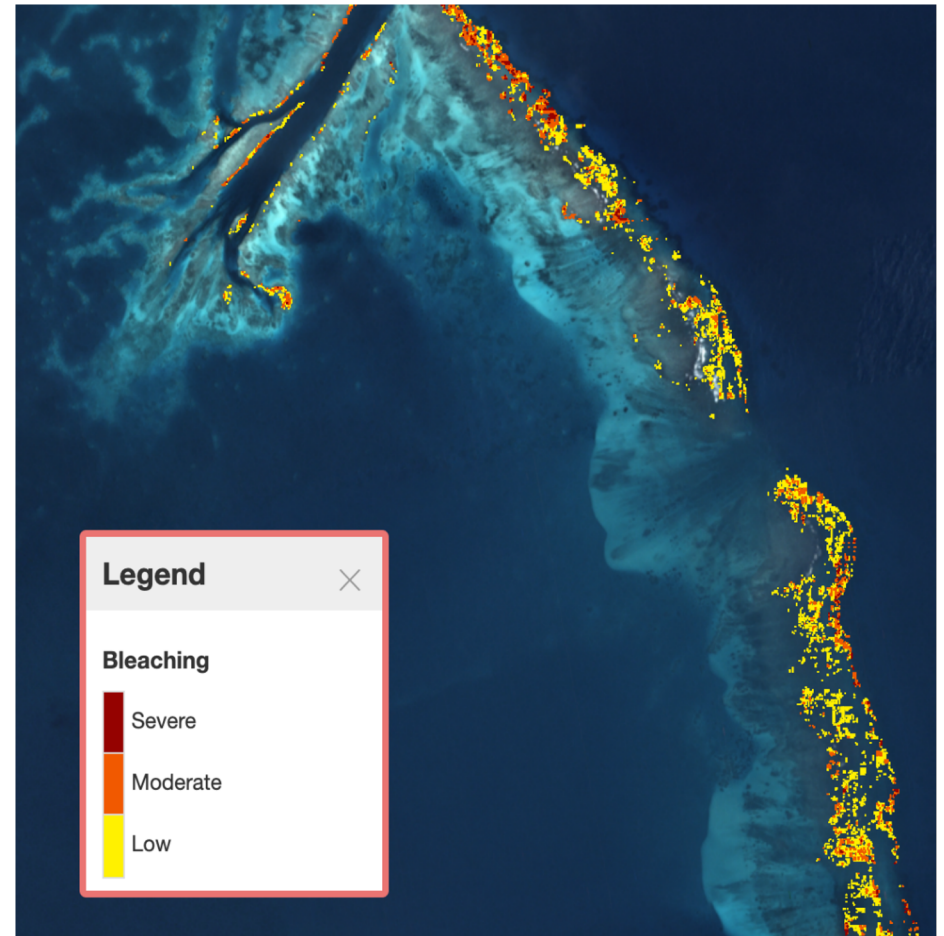
- Marine spatial planning
- Assessing environmentally sensitive areas
- Disaster risk assessments
- Country-wide strategy action plans
- Prioritizing areas for restoration

Bleaching Monitoring System

Biweekly visualizations of detected coral bleaching around the world.

Use Cases

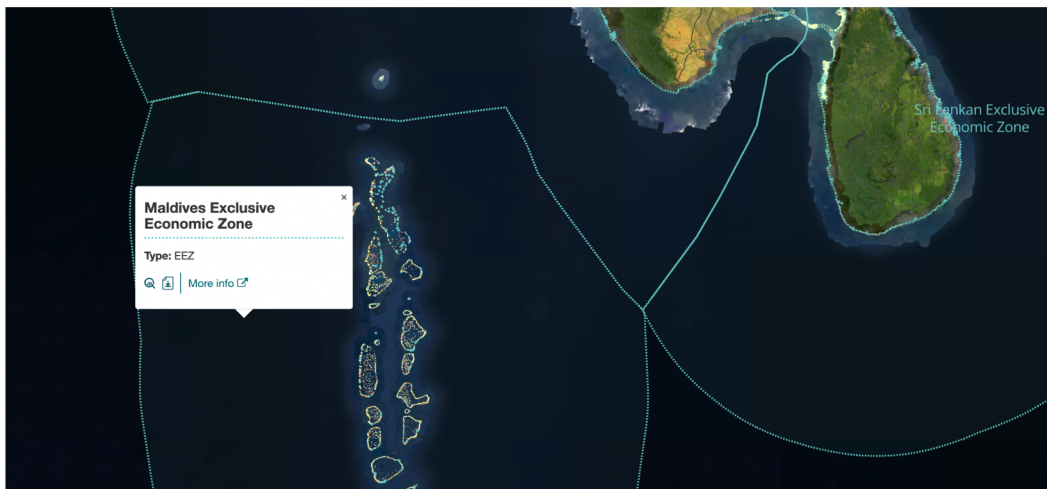
- Prioritizing areas for restoration
- Identifying areas of high coral tissue loss
- Focusing monitoring efforts
- Informing rapid response
- Monitoring reef resilience between managed and unmanaged areas



Allen Coral Atlas shows coral bleaching in Papua New Guinea, 27 September 2021



Marine Protected Areas surround Fiji shown on the Allen Coral Atlas



National maritime boundaries on the Allen Coral Atlas

Marine Protected Areas and National Maritime Boundaries

Marine Protected Area and National Maritime Boundary information alongside reef habitat data provides a comprehensive look at ecosystems within human-drawn boundaries

Use Cases

- Track progress on Target 14.5
- Inform marine spatial planning
- Identify amount of habitat within a country's territory and within MPA boundaries
- Assess connectivity between areas

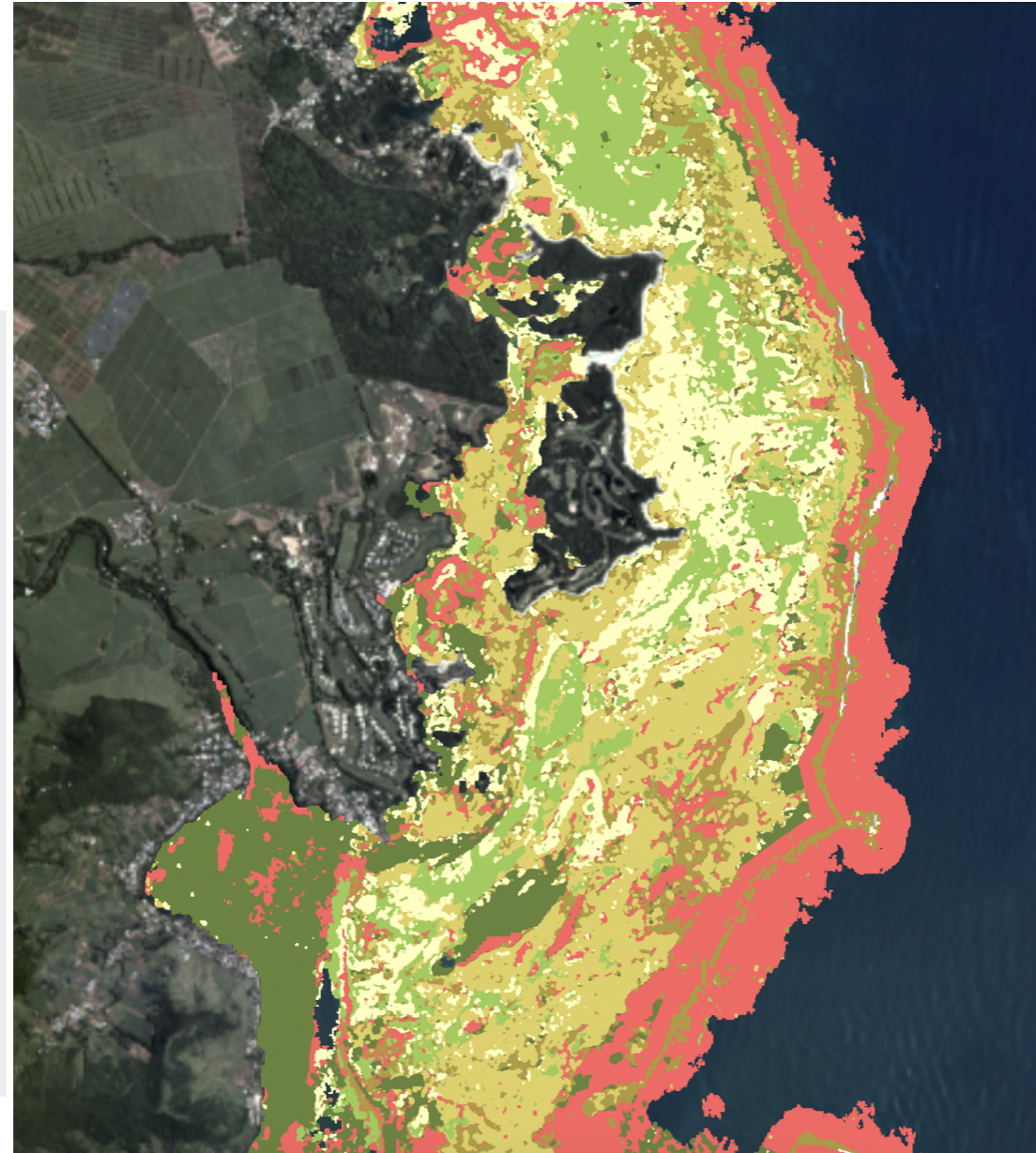


Habitat data is having an impact

Mozambique
Country-wide spatial planning

Sri Lanka
Creation of a National Park at
Kayankerni Reef

Vanuatu
Resilience assessments and
country-wide spatial planning





What's next

Near-term...
Monitoring turbidity

On the horizon...
Monitoring land-based threats
Flood protection value of reefs



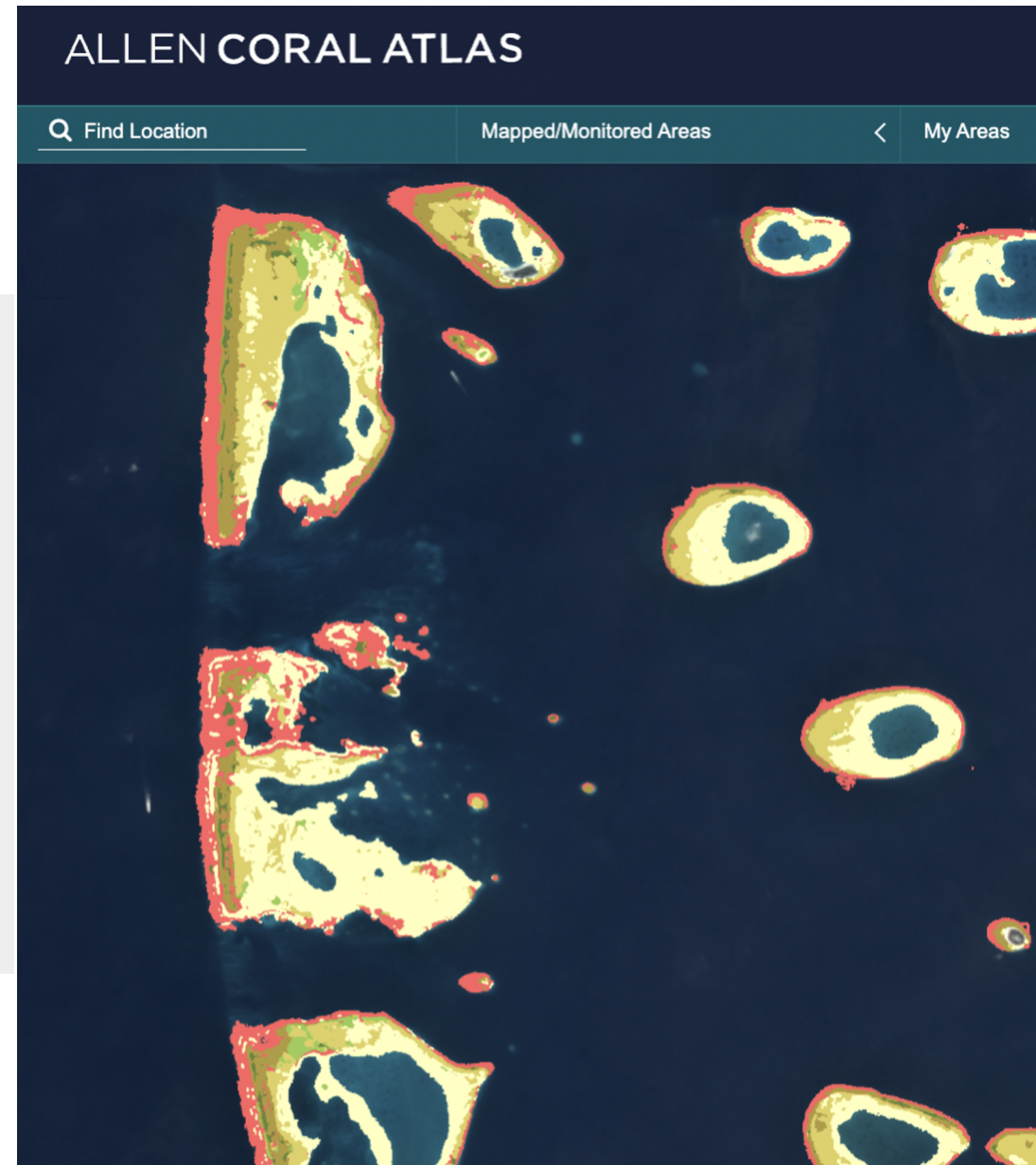
The Atlas of the Future

60% of the world's reefs are threatened by local activities like overfishing, coastal development and watershed pollution...

Calling for Collaborators

Partnership: Innovative coastal monitoring program. Join us as a collaborating partner

Funding Opportunities: Help us provide essential data to decision-makers to inform coastal management



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