



# GULF AND CARIBBEAN FISHERIES INSTITUTE

GCFI CONFERENCE

GCFI PUBLICATIONS

RESOURCES

INITIATIVES

OPPORTUNITIES

EMERGING ISSUES

## HEALTHY ECOSYSTEMS

Learn More

Photo Credit: D. J. Southall

### FISHERIES FOR FISHERS INITIATIVE

Ensuring that fishers are engaged and empowered to contribute to the wise management of the region's marine resources.

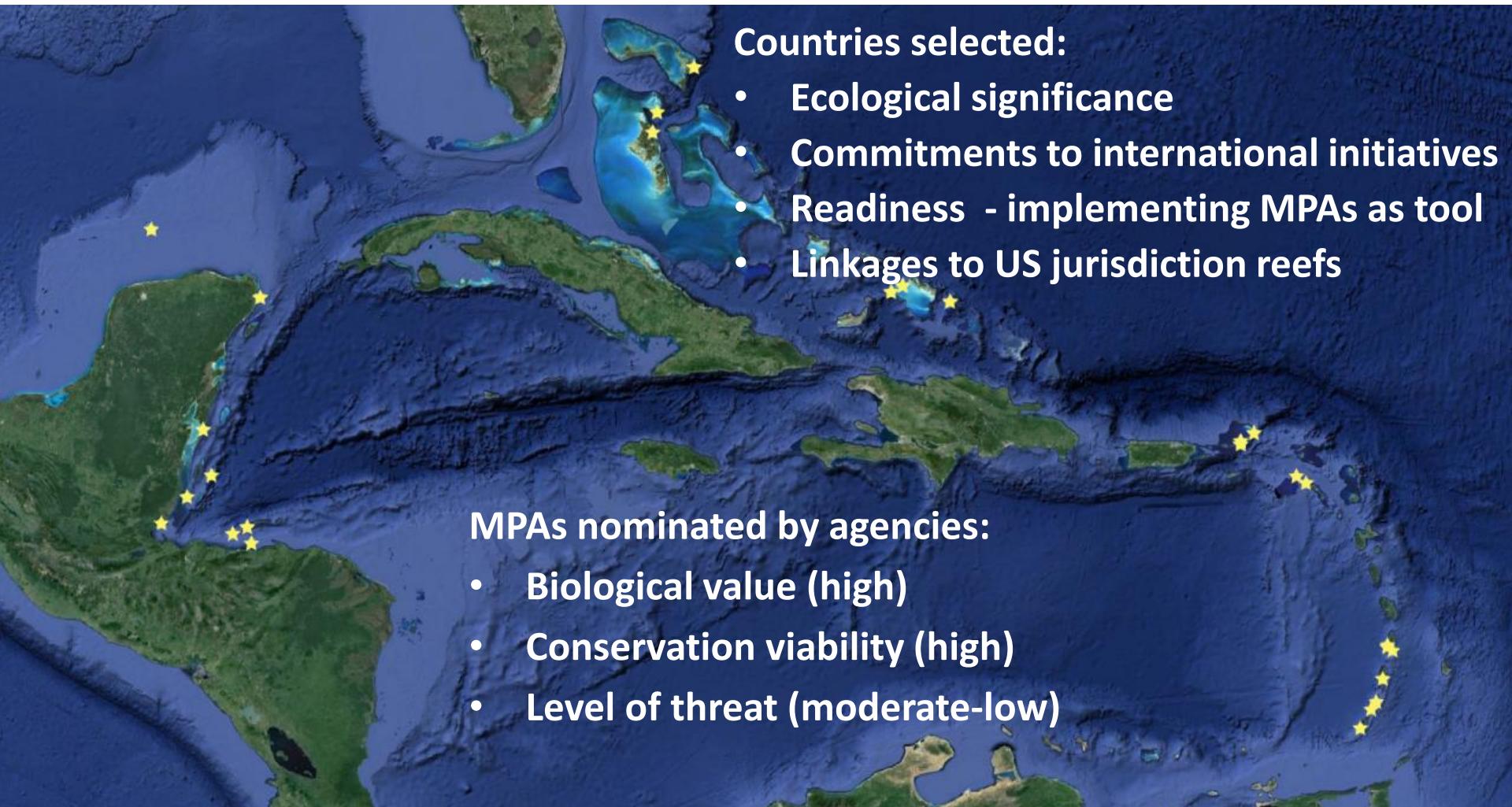
### ECOSYSTEM MANAGEMENT

Building capacity in partnership with the region's Marine Protected Areas managers.

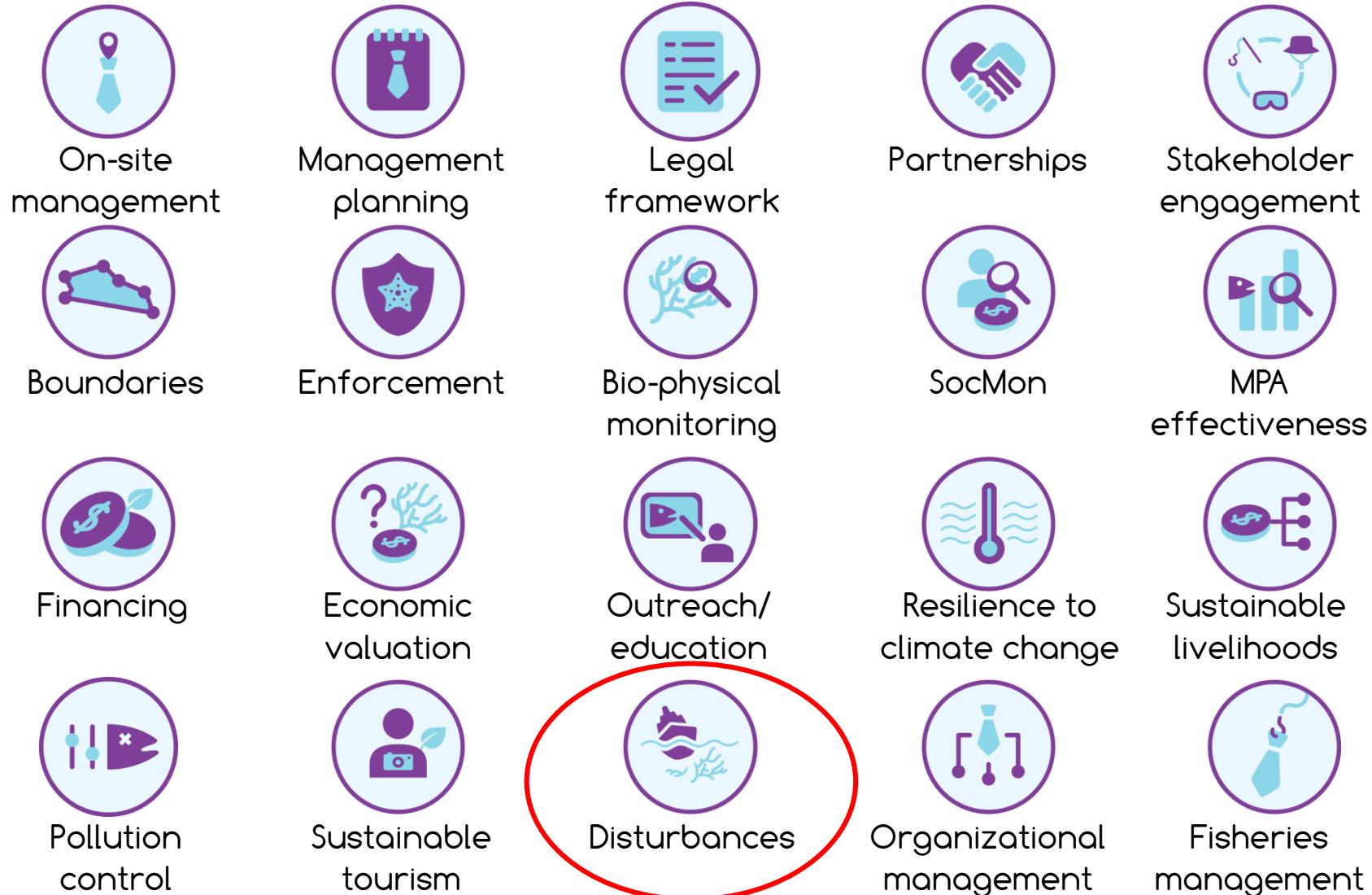
### FOUNDED IN 1947

Advancing the goals of sustainable use, wise management, conservation, and restoration of marine and estuarine fisheries and resources in the Region by providing a forum for the exchange of information and perspectives among decision-makers, scientists, managers, educators,

# 10 Caribbean countries/territories, 30 coral reef MPAs nominated by local agencies



# 20 elements of management capacity





# Current Capacity – response to disturbances



## Management Capacity Elements- Tier and Priority Results for 2017

MPAConnect [Facebook](#) [Twitter](#) [Email](#)

Welcome

On Site Management

Organizational Management

Management Planning

Legal Framework

Partnerships and Coordination

Enforcement



### RESPONSE TO DISTURBANCE EVENTS

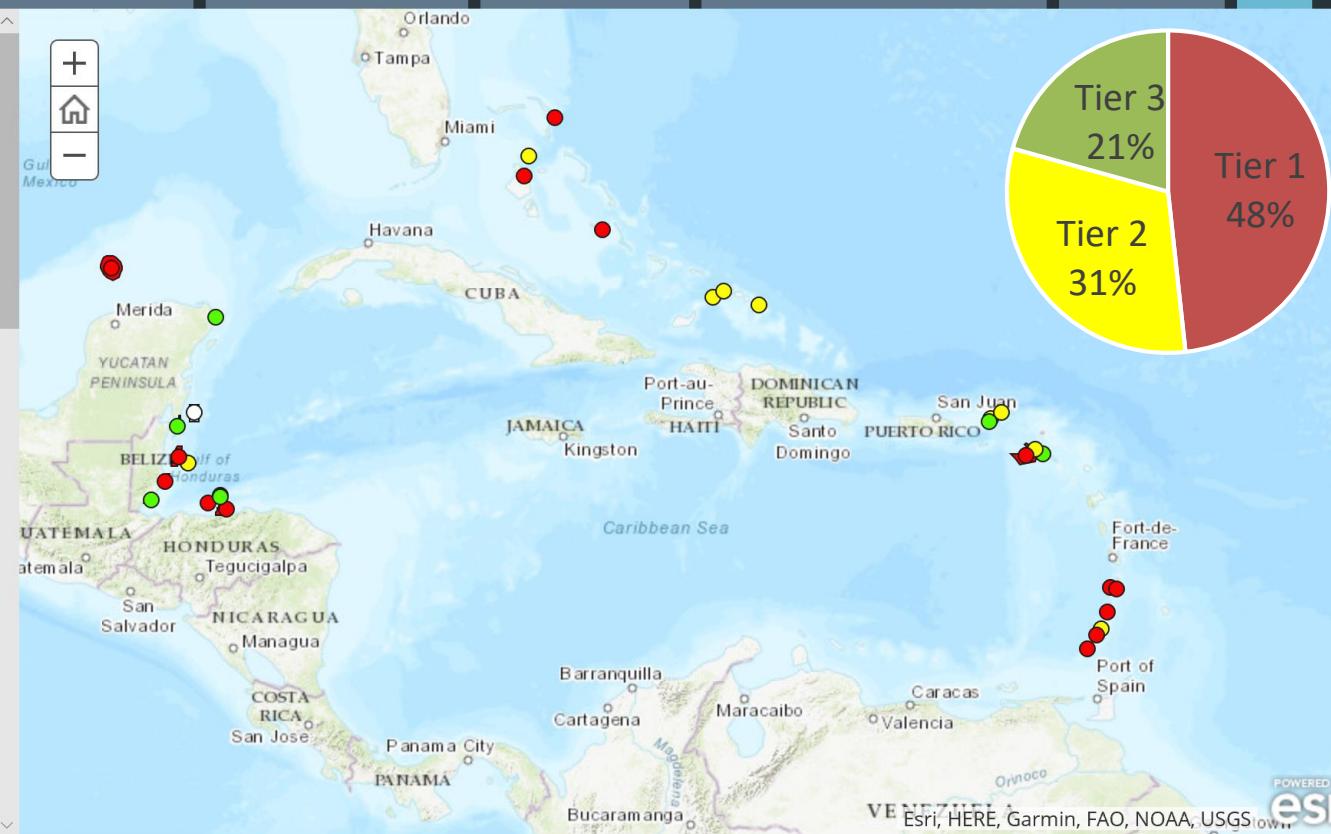
Tier 1: Little or no consideration of response to disturbance events in the management of the MPA

Tier 2: Response plan(s) developed for the MPA

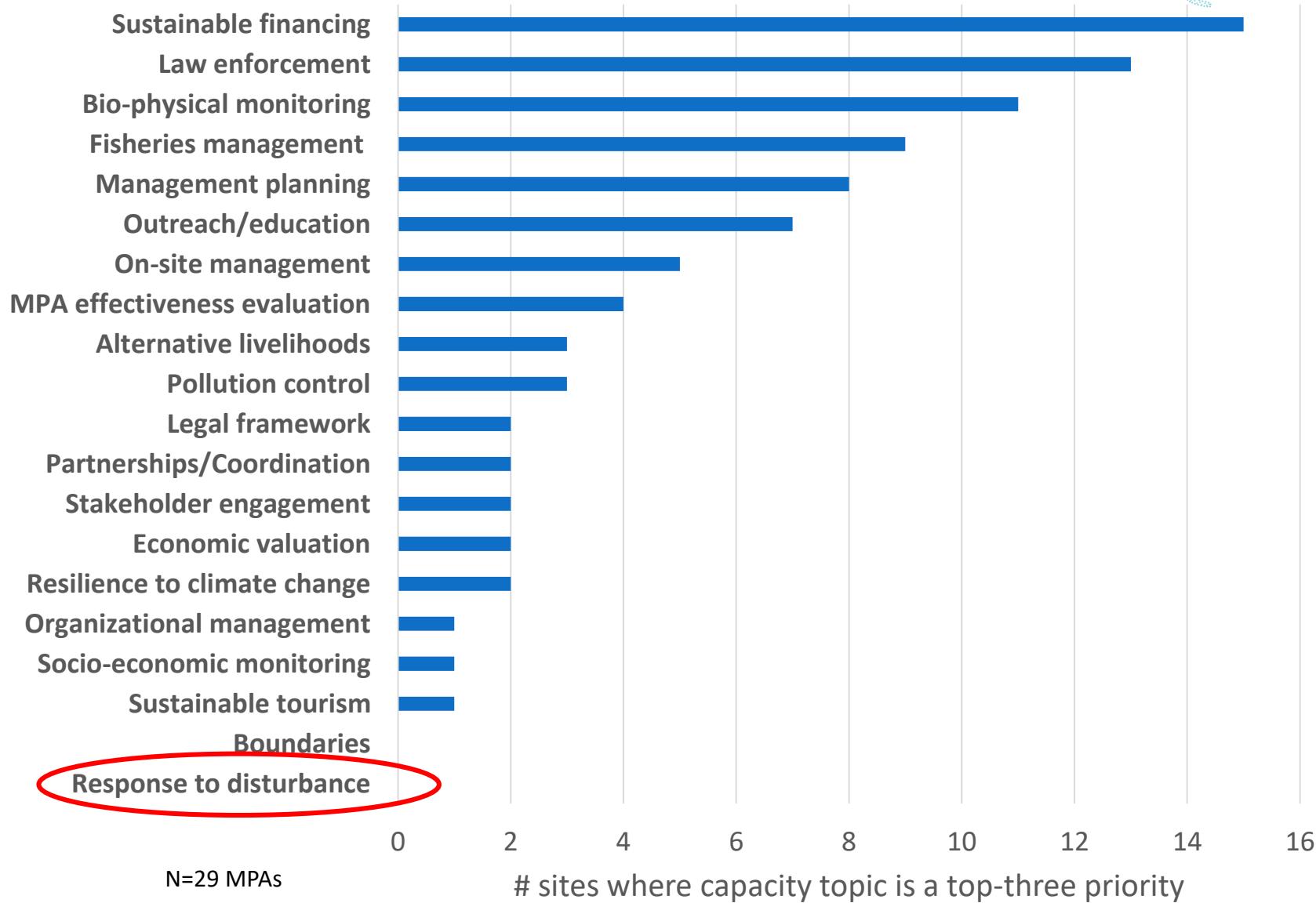
Tier 3: Response plan(s) being implemented with resources, technical capacity and infrastructure available to respond

### Tier and Priority Level of Capacity Element

- Tier 1
- Tier 2
- Tier 3
- Top 3 Priority Need and Tier 1, 2, or 3
- Not Applicable
- No Data

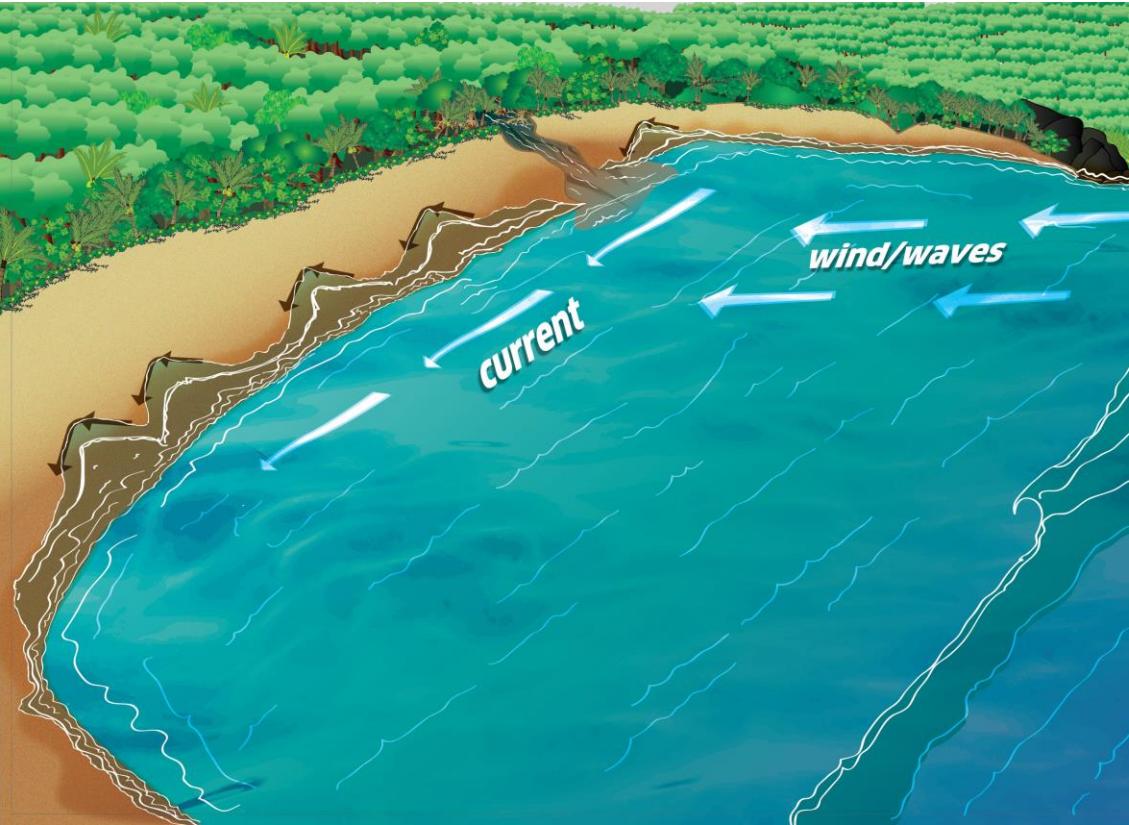
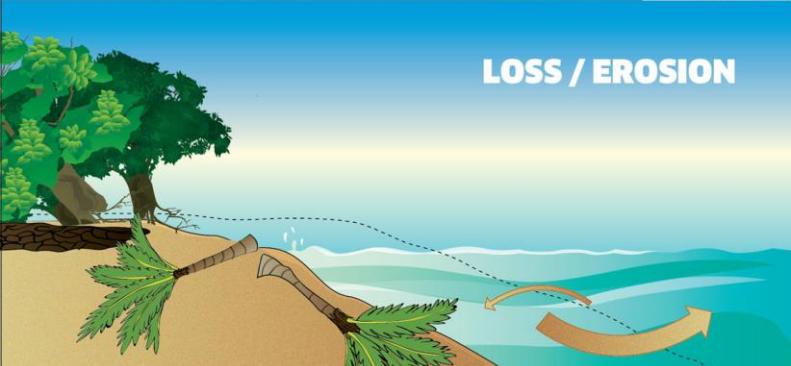
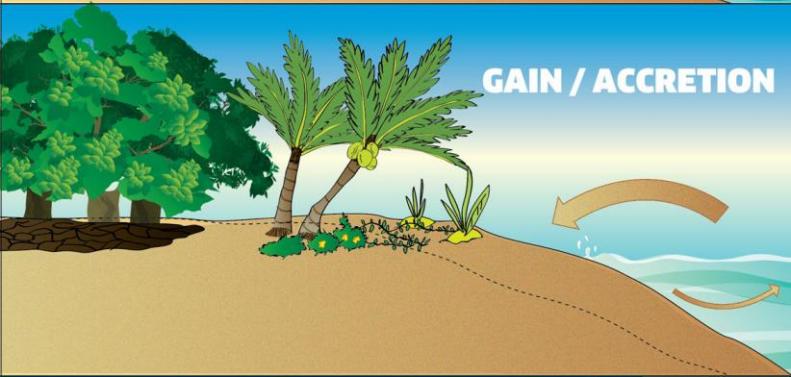
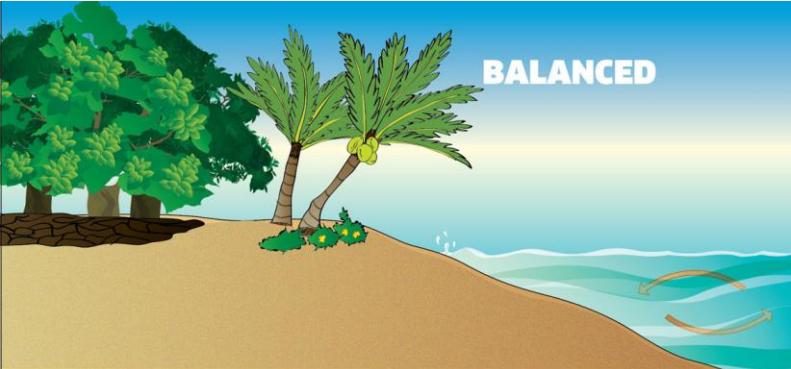


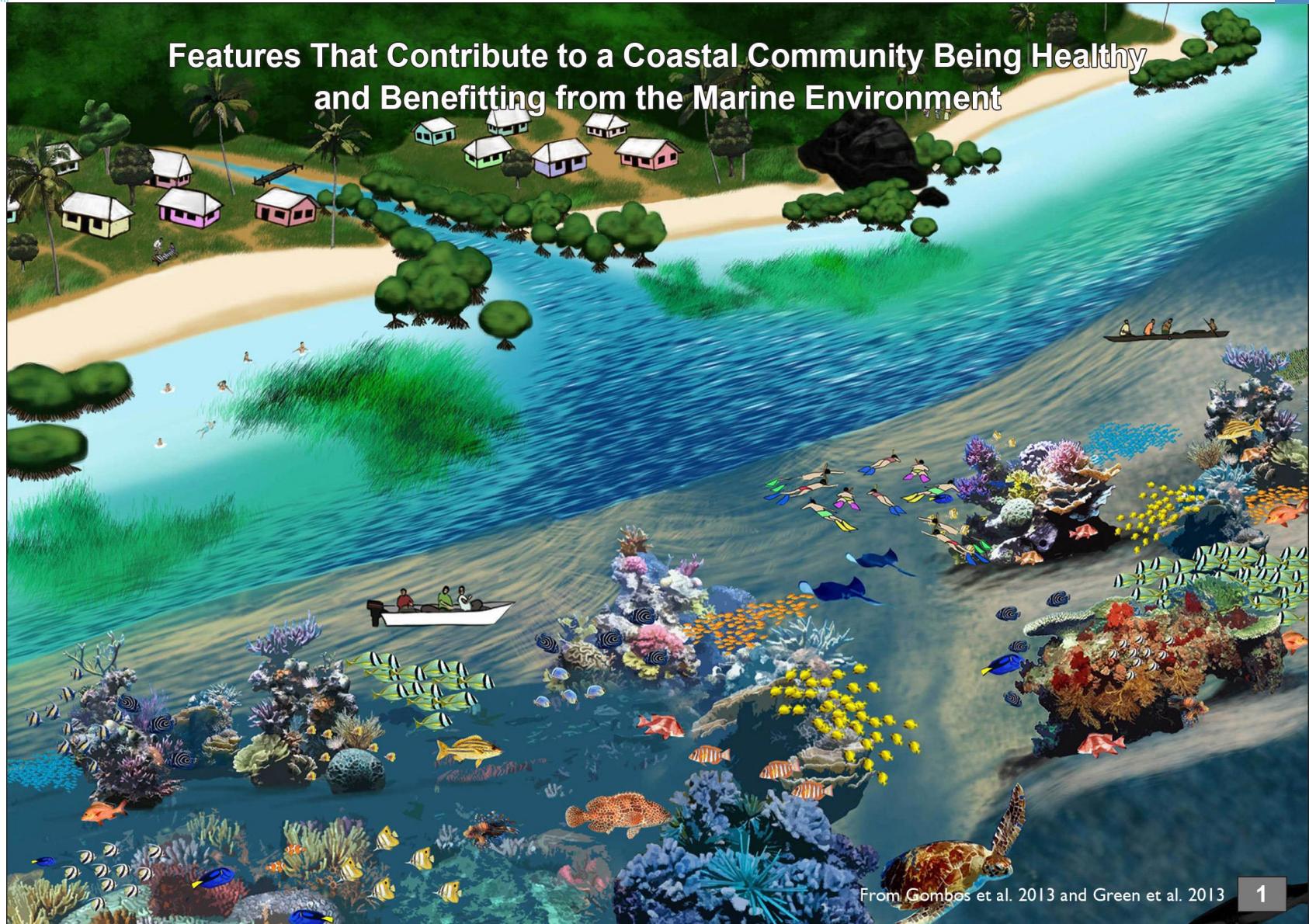
# 2017 Priority Capacity Building Needs





IN CASE OF  
SARGASSUM  
BREAK SEAL







# Responding to a sargassum influx

If sargassum appears on your beach, what you do next can be good or bad for the beach and business. Important lessons have been learned so far.

**Here's what you need to know**

- Sargassum is a natural seaweed that floats in the Atlantic Ocean.
- It's an important home for marine life, like fish and sea turtles.
- It's a problem only when it comes ashore in massive amounts.
- A complaint is the smell of rotten egg gas as wet sargassum decomposes. There are potential health risks at high gas concentrations.

**What should you do?**

**Communication is key!**

- Inform beach users about sargassum - manage their expectations.
- Direct beach users to unaffected or clean beaches.
- Agree how much sargassum justifies cleaning.
- Determine which beaches will be cleaned.
- Join with partners and share the job.
- Organise wildlife patrollers to inspect for stranded sea creatures like sea turtle hatchlings, collect and release them with some sargassum into offshore currents.
- Leave some sargassum for beach nourishment.
- Keep in touch with local environmental agencies as forecasting models are in development.

**Take care!**

These actions cause serious harm to the beach.

- Constant beach grooming
- Removing sand from the beach or dunes
- Heavy machinery used carelessly
- Clearing or trampling beach vegetation
- Driving above the high water mark and through sand dunes
- Driving over sea turtle nests
- Cleaning before patrollers - Let them check for signs of wildlife before you start cleaning!

**If my beach looks like this...**

**No action** required on this beach

Leave the sargassum alone - let nature run its course. Be patient - it will wash away or get buried. Rest assured - it will benefit your beach and save you money and effort.

**Taking action?** Manual raking is the approach to take

It's simple, low cost and environmentally friendly. Get communities involved in these beach clean-ups. Run educational scavenger hunts for sea creatures in sargassum.

Separate plastic pollution from sargassum for disposal. Transport using wheelbarrows, bags or tarpaulins and take to designated disposal areas.

**Work with partners** and plan a mechanical response

Take a multi-stage approach - remove upper layers of sargassum with machinery, without touching the sand, then rake manually or run mechanical beach raking equipment.

Clean high usage areas first and leave other beaches for nature to clean.

Remove the sargassum as soon as possible after arrival to avoid vast accumulation.

**Do's & Don'ts**

**Clean in daylight**

**what about... REMOVAL from shallow water?**

**!** Sargassum is heavy when wet.

Removal from close to shore may prevent sargassum from rotting in the water.

Consider a horse-drawn trap to collect sargassum in suitable sea conditions as an environmentally friendly removal option.

Different methods have been tried but are labour intensive and costly (e.g. booms, barges, vacuums). Results are mixed - stability problems, unloading issues and unwanted by-catch of marine life.

**how do we DISPOSE of sargassum?**

- Designate sites for the disposal of sargassum.
- Use sunny locations for drying and decomposition.
- Re-distribute sargassum to fill eroded beaches.
- For sea turtle nesting beaches, transport sargassum off-site, don't dump on dunes or nests.
- Use as mulch or compost - wash out salt first.
- New uses are being developed - like bio-stimulant and bio-fuel.
- Sargassum is not suitable for human consumption.

**Consider public safety**

Avoid mechanical cleaning around bathers and beach goers

**Supervise use of machinery**

**Use same route on and off the beach**

**Never use a bucket, don't gouge sand**

**Don't clean near dunes**

**Use machines with large soft tires**

**Machines with a claw or rake are preferable**

**Keep equipment on damp sand in the tidal zone**

**Use mechanical beach raking equipment with perforated conveyor belt**

**Observe**

Search the beach searching for wildlife

**NO-GO Areas: turtle and bird nests**

Do not enter with cleaning equipment

**For more information please contact: [sargassumgcfi.org](http://sargassumgcfi.org)**

GCFI is a project of the Gulf and Caribbean Fisheries Institute. Sargassum uses and more information: [sargassum-at-texas.com](http://sargassum-at-texas.com)

Caribbean Hotel and Tourism Association Sustainability Webinar No. 5: <https://youtu.be/0qfPf94Af4I>

University of Southern Mississippi sargassum reporting site: <http://www.usm.edu/cgs/sargassum/index.php>

"Rotten egg gas" health effects: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4700000/>

\*Download this infographic for print or download us to go to [www.gcfi.org/sargassum-infographic](http://www.gcfi.org/sargassum-infographic)

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# Do's & Don'ts

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Use same route on and off the beach

Consider public safety  
Avoid mechanical cleaning around fishers and beach goers

what about...  
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GCFI pelagic sargassum factsheet: [www.gcfi.org](http://www.gcfi.org)

Sargassum uses and more information: [www.sargassum-at-cermes.com](http://www.sargassum-at-cermes.com)

Caribbean Hotel and Tourism Association Sustainability Webinar No. 5: <https://youtu.be/qhkfgeEpk4I>

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"Rotten egg gas" health effects: <https://www.osha.gov/SLTC/hydrogen sulfide/hazards.html>

To download this poster for print or electronic use go to: [www.gcfi.org/emerging-issues/](http://www.gcfi.org/emerging-issues/)



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**NO-GO**  
Areas: turtle  
and bird nests



what about...

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Consider a horse-drawn...



# CONTACT

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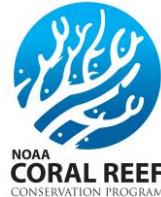
[www.gcfi.org/initiatives/mpa-capacity-program/](http://www.gcfi.org/initiatives/mpa-capacity-program/)



A partnership between:



and



A network for learning among Caribbean marine resource managers