

Marine Condition indicators Overseas Territories

OT1 – *Percentage of habitat area protected*

Biodiversity component:

Seagrass Beds and Coral and other reef forming Habitats

Pressures/Activities evaluated:

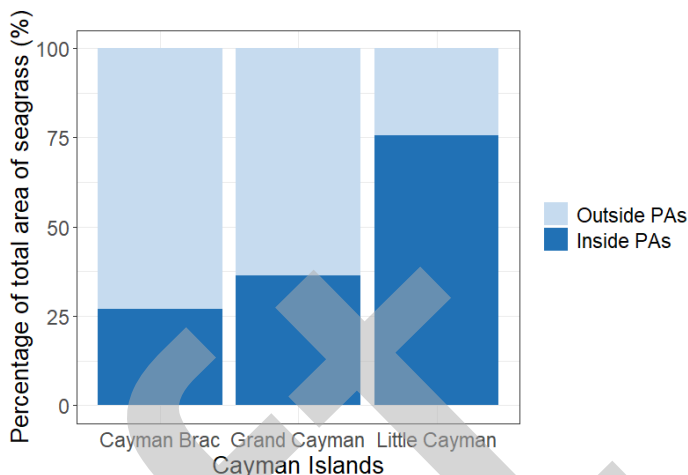
NA, policy indicator

Overseas Territories:

Cayman Islands, Turks and Caicos Islands

Regional Area:

Caribbean



What is the aim of the indicator?

The indicator aims to provide statistics on the percentage area of priority habitats protected within MPAs/OECMs. This indicator uses two types of information:

- Area and distribution of habitat taken from benthic habitat spatial data
- Area and distribution of protected areas

Why do we need this indicator?

This indicator helps evaluate the percentage of habitats under protection (including indirect protection) within MPAs or OECMs, relative to the total habitat within a country's waters.

The results can be used to evaluate progress of environmental policies such as those related to 30x30.

It can also identify habitats that lack sufficient representation in protected areas and inform decisions on potential locations for new MPAs or OECMs.

The indicator can be used for national state of the environment reports or international reporting.

What do we measure?

The indicator method is based on a series of geoprocessing steps using the programming language R to analyze the spatial layers of habitats and protected areas. It calculates the area of key habitat both within and outside of protected areas. Alternative processing methods in GIS can also be applied.

The final output of the indicator is the percentage of the total area of key habitat within and outside protected areas, accompanied by spatial mapping outputs

How do we measure it?

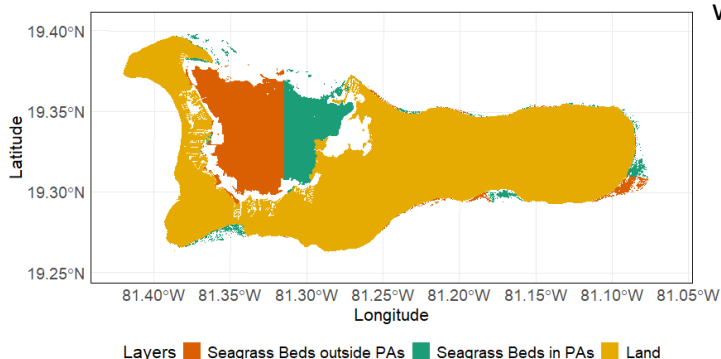
The habitat data is intersected and erased using the protected area layer to determine habitat areas within and outside of protected areas. The outputs of the indicator include:

- Calculation of the habitat area within protected areas, expressed as a percentage of the total habitat.
- Calculation of the habitat area outside of protected areas, expressed as a percentage of the total habitat.
- Maps showing distribution of key habitat areas within and outside of protected areas.

Future applications

The method can be adapted to include other habitat type and species.

The statistics can also be used to inform marine ecosystem service asset maps.



Marine Condition indicators Overseas Territories

OT2 - Area of Habitat at Risk

Biodiversity component:

Seagrass Beds and Coral and other reef forming Habitats

Pressures/Activities evaluated:

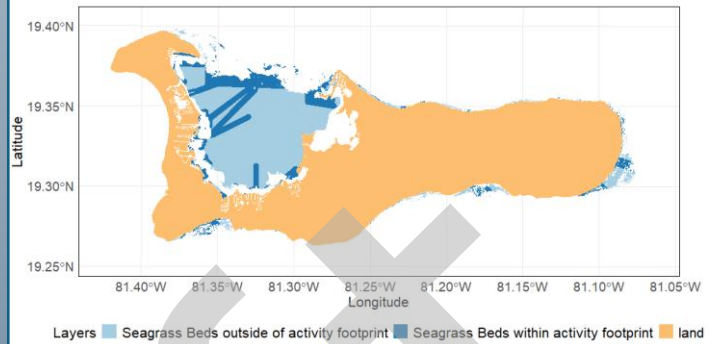
Physical pressures

Overseas Territories:

Cayman Islands, Turks and Caicos Islands

Regional Area:

Caribbean



What do we use as an indicator?

The indicator aims to provide statistics on the level of risk to selected habitats from physical pressures from human inside and outside of protected areas/OECMs within country waters. This indicator uses three types of information:

- Area and distribution of habitat taken from benthic habitat spatial data
- Area and distribution of protected areas
- Area and distribution of human activities e.g., mooring sites, fishing zones, boat lanes

Why do we need this indicator?

The indicator provides evidence on habitat condition by measuring the degree of risk to selected habitats from various human activities, both within and outside of protected areas or OECMs. It also offers spatial data mapping areas at varying levels of risk to these habitats.

By identifying specific human activities that threaten the resilience of key habitats, the indicator can support the management of protected areas and OECMs. This indicator can be applied when limited monitoring data are available.

What do we measure?

This indicator uses a modelling method based on programming language R to analyse the key habitat and activity footprint and calculate the area of key habitat within the activity footprint that is within and outside of protected areas.

How do we measure it?

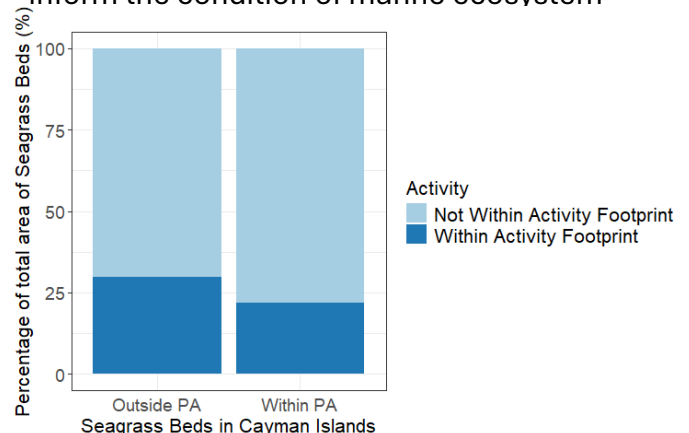
Habitat data is intersected and erased with the protected area layer to determine habitat within and outside of protected areas. The human activity data layers are then intersected with this updated habitat layer. This final layer is used to undertake area calculations, resulting in the following outputs:

- Calculation of habitat within and outside the activity footprint, expressed as a percentage of the total habitat.
- Calculation of habitat within and outside the activity footprint, both within and outside of protected areas.
- Mapping outputs.
- A list of activities potentially impacting habitats.

Future applications

The method can be adapted to include other habitat types and species. It can also be applied to assess other types of pressures (non-physical).

Additionally, the statistics can be used to inform the condition of marine ecosystem



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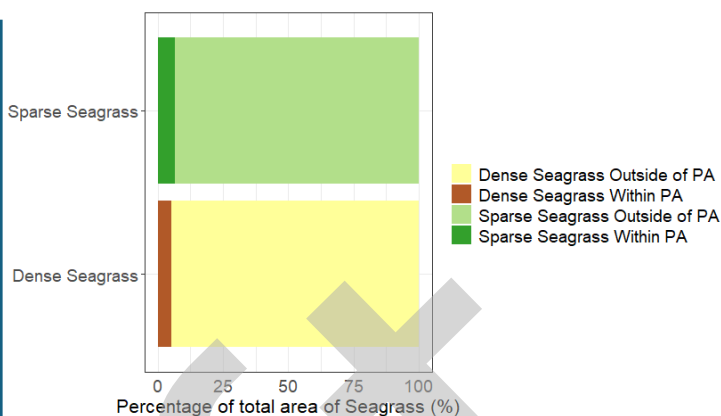
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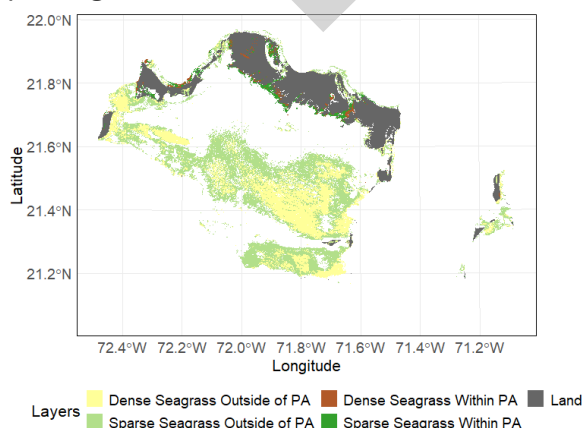
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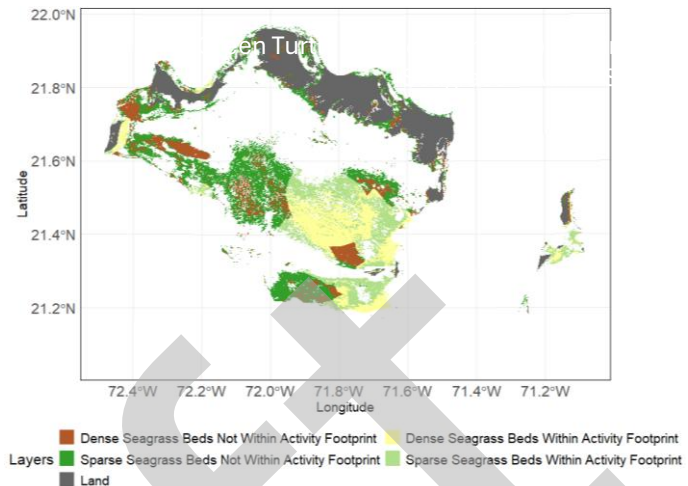
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