



**Technical assistance programme for effective coastal-marine management in the
Turks and Caicos Islands (DPLUS119)**

**Work Package 3: Marine indicators to monitor changes in marine-coastal natural
capital – Guidance Document**

JNCC

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<https://hub.jncc.gov.uk/assets/afd3dc03-9235-41d3-ada8-9f51aa50ed88#dplus119-wp3-guidance-document.pdf>.

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Summary

Work Package 3 (WP3) of the DPLUS119 project aimed to improve the evidence base in marine and coastal environments to support sustainable coastal-marine management in the Turks and Caicos Islands (TCI). It aimed to develop practical tools to support decision-makers and local communities in implementing natural capital approaches. Assessing marine habitat condition is a vital step when quantifying the status of coastal natural assets and ecosystem services and encourages sustainable management of marine resources to ensure their use for future generations. Indicators are tools and methods used in assessments to summarise and communicate aspects of ecosystem state and natural asset condition.

Key Outputs

- **Literature review and identification of existing local, regional and global datasets** to provide an overview of which marine indicators are suitable for assessing coastal-marine natural assets in TCI.
- A **scoping document** summarising the indicators which could be used, and outlining a plan for adaptation of the indicators to make them applicable to TCI.
- Piloting of an **indicator approach to assess seagrass extent**.
- Recommendations for **approaches to assess the condition** of other marine habitats.

Key findings

- The literature review identified 9 local, 5 regional and 16 global data sources and a number of metrics which could potentially be used to measure changes in TCI's marine-coastal natural assets.
- The scoping document shortlisted 14 indicators which could possibly be implemented for TCI, because the data and methodologies are potentially available and would require less capacity to adapt and make operational.
- An approach for assessing seagrass extent was successfully piloted, but there were a number of knowledge and data gaps, and additional work is required to further develop the indicator approach.
- Recommendations for other indicators which could be developed include those for seagrass condition and coral reef habitats.

How to use these resources

- The literature review and scoping document can be used to identify which marine biodiversity indicators could potentially be used to measure changes in TCI's marine-coastal natural assets because the data and methodologies

are potentially available. However, it is important to note that without testing each of the indicators it is not possible to know for certain if the methods would be applicable to TCI.

- The approach for assessing seagrass extent outlines how seagrass extent can be calculated from benthic habitat maps and provides information on knowledge gaps and work required to further develop the indicator approach.
- Suggestions for future work are discussed in the recommendations report.

Where to find more information

- All outputs, including reports, knowledge exchange presentations and guidance documents, can be accessed from the DPLUS119 WP3 webpage: <https://jncc.gov.uk/our-work/work-package-3/>.
- All data products, including benthic habitat maps, can be accessed from the Turks and Caicos Data Portal: <https://dataportal.gov.tc/>.

Glossary of terms

Term	Definition
Natural Capital	A broad concept to assess of the quantity, quality, function and value of the environment and the goods and services that flow from it, aiming to ensure the sustainable use of natural resources. Natural capital collectively refers to world's stock of natural assets.
Asset	Natural assets are the different components that make up the environment. They include geology, soil, air water and all living things.
Ecosystem Services	These are the goods and services that we (humans) derive from natural assets.
Indicators	Tools and methods used in assessments to summarise and communicate aspects of ecosystem state and natural asset condition.