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25 Year Environment Plan Outcome Indicator K4: 2024 update on the extent of Protected Areas in the UK Overseas Territories

Hugh Wright

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For further information please contact:
Joint Nature Conservation Committee, Quay House, 2 East Station Road, Fletton Quays, Peterborough PE2 8YY

communications@jncc.gov.uk

https://jncc.gov.uk/

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JNCC EQA statement:
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Executive Summary

At a glance – indicator K4 on the extent of protected areas in the UK Overseas Territories

The 25 Year Environment Plan (Defra 2018) and its 2023 update, the Environmental Improvement Plan 2023 (Defra 2023), outline the UK Government's aspirations to help our environment "regain and retain good health". Accompanying the plan is a comprehensive set of 66 indicators – the Outcome Indicator Framework – which show how the environment is changing and whether our interventions are effective (Defra 2019).

The UK Overseas Territories (UKOTs) support a highly diverse range of terrestrial and marine species, habitats, and ecosystems. Protected areas and other effective area-based conservation measures (OECMs) are key tools for conserving this biodiversity, much of which is endemic and globally threatened. 25 Year Environment Plan Outcome Indicator K4 (currently under development) will measure the extent and condition of terrestrial and marine protected areas in the UKOTs. While work to create the protected area condition aspect of this indicator is ongoing, Defra commissioned JNCC to deliver an interim K4 indicator presenting UKOT protected area extent statistics.

Indicator K4 focuses on spatially defined, formally enacted measures for biodiversity conservation. Decisions on which sites and measures to report are made by the UKOT Governments, in line with their responsibilities for the environment. In addition to protected areas, indicator K4 statistics also include OECMs, where the UKOTs consider these to be delivering biodiversity conservation outcomes by virtue of a long-term management regime. JNCC collates statistics from UKOT Governments to produce the indicator results, only undertaking extent calculations on their behalf when requested to do so and using UKOT Governments' official sources of protected area data.

The first iteration of indicator K4 protected area extent statistics (Defra 2021; Wright & Woods 2021) established a 2020 baseline for measuring progress in terrestrial and marine protection up to 2043. This report presents a fourth update, including protected areas and OECMs established to the end of 2024, and provides technical information to accompany interim indicator K4 on the Outcome Indicator Framework dashboard (Defra in prep.). For the first time, this update includes a complete time series of annual protected area extent and coverage data from 2020 to 2024, including aggregated statistics for the UKOTs combined and disaggregated statistics for each UKOT. It also includes revised statistics for the Cayman Islands following one protected area extension in 2024 (resulting in a very minor increase to terrestrial protection) and the remapping of protected area boundaries to a new coastline dataset.

As of the end of 2024, protected areas and OECMs covered 75.0% of the UKOTs' marine environment (remaining level since 2021) and more than a quarter (26.1%) of the terrestrial environment (remaining level since 2022). Marine protected areas covered a total of 4,309,275 km^2 compared to 4,628 km^2 in terrestrial protected areas (noting that UKOTs' waters are over 300 times larger than the UKOTs' combined land area). Despite the status quo observed in 2024, protected area and OECM coverage has grown considerably over the last four years, with a 21.4% increase in terrestrial protection and a 12.0% increase in marine protection since the end of 2020, the first year in the time series.

JNCC aims to develop and improve the K4 protected area statistics to better support and inform the work of UKOT Governments, non-governmental stakeholders and the wider public. JNCC and Defra welcome feedback and suggestions on any aspect of the interim indicator K4 via 25YEPindicators@defra.gov.uk.

Contents

1 Introduction to 25 Year Environment Plan Outcome Indicator K4

1.1 The 25 Year Environment Plan Outcome Indicator Framework

The 25 Year Environment Plan (Defra 2018) and its update, the Environmental Improvement Plan 2023 (Defra 2023), are UK governmental action plans aspiring to help our environment "regain and retain good health". Safeguarding biodiversity is one of 10 goals in the plans that address a broad array of environmental threats and management issues. The 25 Year Environment Plan and the Environmental Improvement Plan 2023 also set out the UK Government's international ambitions, such as leaving a lighter footprint on the global environment, showing international leadership on issues such as climate change, and supporting overseas countries to protect and improve the environment.

Accompanying the 25 Year Environment Plan is a comprehensive set of 66 environmental indicators, known as the Outcome Indicator Framework, which are designed and being developed to show how the environment is changing over time (Defra 2019). This framework is helping Government, stakeholders and the wider public to assess the effectiveness of interventions and track progress towards improving the environment over the 25-year lifespan of the plan. Although the 25 Year Environment Plan does not set specific goals for the UK Government's international ambitions, the Outcome Indicator Framework includes four international indicators to demonstrate the scale of the UK's impact on the environment, the status of biodiversity and the progress of conservation efforts overseas.

1.2 Indicator K4 – protected areas in the UK Overseas Territories

The 25 Year Environment Plan recognises the global significance of biodiversity in the UK Overseas Territories (UKOTs) and the reliance of UKOT communities on the natural environment. The UK Government is committed to supporting the UKOTs in protecting their environmental assets, including biodiversity, and protected areas (PAs) are a key measure for restoring and conserving vulnerable ecosystems, habitats and species. Many species found in the UKOTs are endemic and/or globally threatened (see also 25 Year Environment Plan outcome indicator K3, Farquharson & Williams 2023).

25 Year Environment Plan Outcome Indicator K4 will measure the extent and condition of terrestrial and marine protected areas in the UK Overseas Territories.

Evaluating the condition of habitats and species in PAs will provide evidence for the state of protected features and ecological functions, as well as impacts from human activities and associated pressures, enabling an insight into overall PA effectiveness. However, building this component of the indicator is challenging given the UKOTs' diverse environments, differing environmental policies and varying data availability. As the condition component of K4 is expected to take several years to develop, Defra commissioned JNCC to produce an interim K4 indicator presenting PA extent statistics as a simple and accessible metric for assessing the UKOTs' progress in establishing PA networks for biodiversity conservation.

1.3 Assessing protected area extent

Working closely with, and using data from, the UKOT Governments, JNCC developed statistics that quantify the UKOTs' collective progress in implementing PAs and other effective area-based conservation measures (OECMs). The first iteration of interim indicator K4 (Defra 2021; Wright & Woods 2021) presented the total extent and percent coverage of PAs and OECMs across the UKOTs combined, establishing a 2020 baseline for measuring

progress in terrestrial and marine protection up to 2043. The interim indicator has been updated annually since 2021 (Wright 2022, 2023, 2024).

As well as assessing progress in the context of 25 Year Environment Plan aspirations, these statistics inform a number of UK Government international policy areas including: the Convention on Biological Diversity's (CBD) Kunming-Montreal Global Biodiversity Framework (GBF); the 2030 UN Sustainable Development Goals and the Blue Belt Programme. Integrating the indicator across multiple policy areas has improved consistency in the use of PA statistics and facilitated international reporting of UKOT PAs. In particular, indicator K4 statistics help to track progress towards the extent component of GBF Target 3, which aims for at least 30% of terrestrial and inland water areas, and at least 30% of coastal and marine areas (globally), to be effectively conserved and managed through systems of PAs and OECMs by 2030 (CBD 2022).

The PA extent statistics also help to inform UKOT Governments' work at national and regional levels, supporting them in prioritising where further development of PA networks would be beneficial for biodiversity conservation. Furthermore, JNCC hope that indicator K4 is valuable to civil society stakeholders and the wider public, for communicating progress in UKOT biodiversity conservation and to attract and direct interested parties with potential offers of support and assistance to the UKOTs.

The simplicity of extent statistics (presenting only the total size of PAs and OECMs) results in several limitations, as listed in Section 3.10. In particular, these statistics do not measure progress towards achieving conservation objectives/outcomes and therefore provide no indication of conservation and management effectiveness – a key element of GBF Target 3.

1.4 Update to interim indicator K4

This report presents an update to interim indicator K4 – including PAs and OECMs established up to the end of 2024 – and provides technical information to accompany the published indicator on the Outcome Indicator Framework dashboard (Defra in prep.). The K4 PA extent statistics are also published on the JNCC website and are available to download (in an MS Excel spreadsheet) from JNCC's Resource Hub.

In this 2024 update, the Cayman Islands Government reported an extension to one terrestrial PA and provided updated terrestrial and marine PA statistics following the remapping of PA boundaries to a new coastline dataset. JNCC applied these revised figures, along with new rules of thumb for making corrections and backdating improvements to K4 data (see Section 3.12), to produce a time series dataset showing annual change in PA extent from 2020 through to 2024. The complete time series is presented in this report for the first time, both for the UKOTs combined (Figure 1) and for each UKOT individually (Tables 6 and 7, Appendix 2), replacing the previous chart showing a yearly snapshot of PA extent.

25 Year Environment Plan Outcome Indicators are voluntarily compliant with the UK's Code of Practice for Statistics, which advocates that users' interests should be at the core of indicator development. JNCC and Defra therefore welcome feedback (via 25YEPindicators@defra.gov.uk) on the suitability, quality, usefulness, or any aspect of the indicator K4 PA extent statistics, from users across the UKOTs and metropolitan UK.

2 Extent of protected areas in the UK Overseas Territories: results

Indicator K4 statistics on the extent and percent coverage of PAs and OECMs in the UKOTs combined are presented in Section 2.1. These mirror the aggregated statistics presented on the 25 Year Environment Plan Outcome Indicator Framework dashboard (Defra, in prep). Results for the terrestrial and marine environments are presented separately throughout – in this context "terrestrial" refers to both land and inland water environments.

Detailed statistics showing the extent and percent coverage of PAs and OECMs for each individual UKOT are presented in Section 2.2 and Appendix 2. The British Antarctic Territory is excluded from all statistics (aggregated and disaggregated results) since Antarctic terrestrial and marine protection is delivered through the Antarctic Treaty System.

Section 2.1 refers to GBF Target 3 to consider the statistics in a global conservation context. However, the CBD has only been formally extended to a subset of the UKOTs (British Virgin Islands; Cayman Islands; Falkland Islands; Gibraltar; St Helena, Ascension, and Tristan da Cunha; and South Georgia and the South Sandwich Islands) and the 25 Year Environment Plan and Environmental Improvement Plan 2023 do not set any targets for PA coverage. Environmental management, designation of PAs and target setting is the responsibility of the UKOT Governments.

2.1 Extent of protected areas in the UKOTs combined

Changes to UKOT PAs were minimal in 2024, with no impact (to one decimal place) on the aggregated percent coverages for all UKOTs combined. PAs and OECMs covered three-quarters of the UKOTs' marine environment at the end of 2024 (Figure 1, Table 1), remaining level since the end of 2021. This result far exceeds Target 3 of the GBF, which aims for at least 30% protection of coastal and marine areas (globally) by 2030. Terrestrial PAs covered more than a quarter of the combined UKOT land area (26.1%), remaining level since 2022 (Wright 2023) and still approaching the at least 30% GBF protection target for terrestrial and inland water environments.

Despite the status quo in 2024, PA and OECM coverage has grown considerably over the last four years, with a 21.4% increase in terrestrial protection and a 12.0% increase in marine protection since the end of 2020 (the first year in the time series). The growth in terrestrial PAs has been driven by incremental increases to land protection in the Cayman Islands (from 2022 to 2024) and, in particular, the designation of two terrestrial PAs covering the entire landmass of South Georgia and the South Sandwich Islands in 2022. The growth in marine PAs has been driven by the expansion of marine parks in the Cayman Islands (in 2021 and 2022) and the designation of a large (687,219 km^2) Marine Protection Zone in Tristan da Cunha in 2021.

Only five OECMs have been reported by UKOT Governments to date, with PAs representing all of the terrestrial coverages and the vast majority of the marine coverages presented in Figure 1 and Table 1 below. The OECMs reported include a no-boating zone in Bermuda (with a marine extent of 0.4 km^2) and a dolphin protection zone and three no-anchoring zones in Gibraltar (with a combined extent of 37 km^2). Together these contribute a tiny proportion (less than 0.001%) of overall marine protection across the UKOTs. Limitations relating to the reporting of OECMs are discussed in Section 3.9.1.

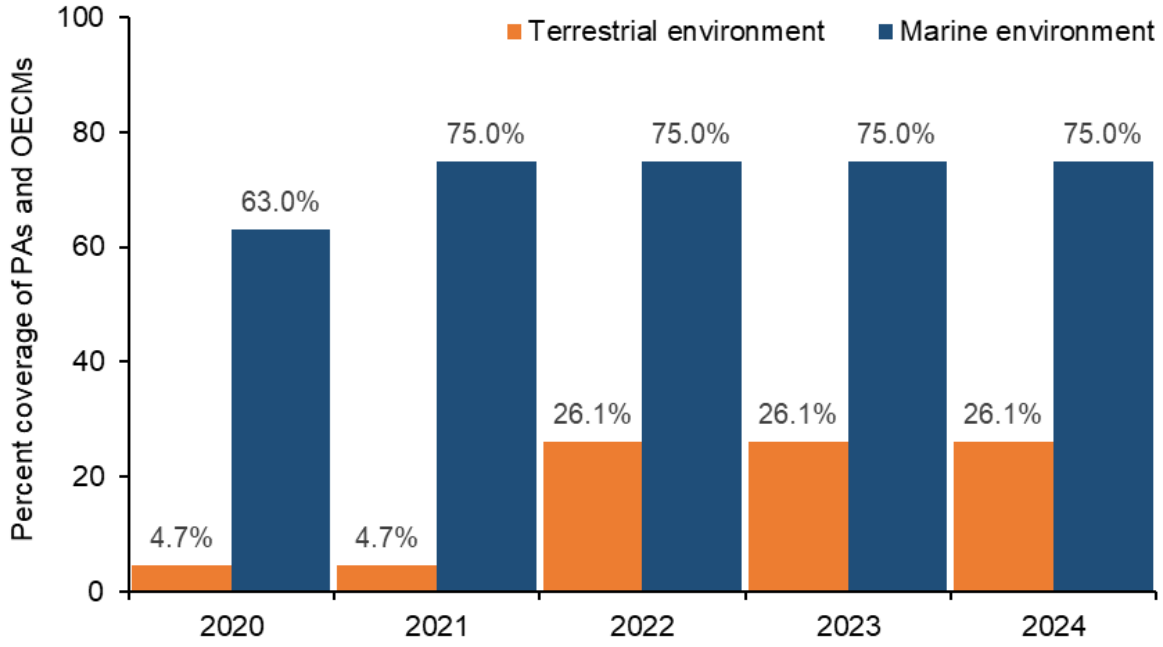

Figure 1. Percent coverage of protected areas (PAs) and other effective area-based conservation measures (OECMs) in the UK Overseas Territories combined, from 2020 to 2024. Results show percent coverages as of 31st December in each year, for terrestrial and marine environments separately (terrestrial includes both land and inland water environments). Percent coverages were calculated relative to the Territories' combined landmass and approximate sea areas. Extent data underlying these results are presented in Tables 6 and 7 in Appendix 2, and are available to download in spreadsheet format from JNCC's Resource Hub.

Table 1. Extent and percent coverage of: (a) terrestrial, and (b) marine, protected areas (PAs), and other effective area-based conservation measures (OECMs) in the UK Overseas Territories (UKOTs) combined, in 2020 and 2024. Change in PA extent and coverage is the net difference between the end of 2020 (the base year) and the end of 2024 ("+" indicates a positive direction of change). Table (c) gives the UKOTs' combined land and sea areas (the latter defined by the outermost boundaries of each UKOT's waters), excluding British Antarctic Territory. The land and sea areas inform the percent coverage results in tables (a) and (b).

(a) Terrestrial protection across the UKOTs combined	**2020**	**2024**	**Net change in PA extent and coverage from 2020 to 2024**
Extent of PAs and OECMs (km^2)	831	4,628	+3,797
% coverage of PAs and OECMs	4.7	26.1	+21.4

(b) Marine protection across the UKOTs combined	**2020**	**2024**	**Net change in PA extent and coverage from 2020 to 2024**
Extent of PAs and OECMs (km^2)	3,621,433	4,309,275	+687,842
% coverage of PAs and OECMs	63.0	75.0	+12.0

(c) Land and sea areas for the UKOTs combined	UKOT landmass	UKOT seas
Area (km^2)	17,741	5,749,254

2.2 Extent of protected areas by UKOT

Disaggregated statistics for the extent and percent coverage of PAs and OECMs in each UKOT are presented in Table 2. The size of UKOTs' land and sea areas differ by up to four orders of magnitude and, correspondingly, the PA extent statistics also vary significantly (by up to seven orders of magnitude for marine protection). Percent coverages account for underlying size differences by presenting the proportion of UKOTs' terrestrial and marine environments in PAs, allowing for more meaningful comparisons between Territories.

By the end of December 2024, all UKOTs had established at least one terrestrial PA, with coverage ranging from 0.5% (Anguilla) to 100% (South Georgia and the South Sandwich Islands, SGSSI) and averaging 30.4% (SD = 29.2%) of the terrestrial environment. Nine of the thirteen Territories have protected more than 10% of their terrestrial environment and six have protected more than 30% (considering Saint Helena, Ascension and Tristan da Cunha as a single territory). The Cayman Islands made a minor extension to one terrestrial PA during 2024 resulting in a very small increase in total PA extent; this made no detectable difference to the Territory-level terrestrial percent coverage (at one decimal place).

Eleven UKOTs had designated marine PAs by the end of 2024. Coverage of the marine environment ranged from less than 1% in four Caribbean UKOTs (calculated to their outermost maritime limits) to complete coverage around three Atlantic-island UKOTs and Pitcairn. Marine protection averaged 45.9% (SD = 49.8%) across all Territories, considerably lower than the aggregated statistic of 75.0% for all UKOTs combined (Figure 1, Table 1a). This further demonstrates the strong differences among UKOTs, with six Territories with vast maritime zones protecting major areas of ocean in large-scale MPAs (pushing the aggregated statistic up), while other Territories have lower coverage of marine PAs combined with smaller areas of jurisdiction. Two UKOTs, the Falkland Islands and Montserrat, have not yet designated marine PAs.

UKOT Protected Area policy is implemented at a range of spatial scales and involves a variety of management regimes, which can differ markedly between Territories. The marine coverage statistics presented in Table 2 are calculated based on the full extent of UKOTs' waters, providing a reasonably consistent scale of analysis across all Territories. This broad resolution is particularly relevant to Territories with large-scale marine PAs covering most or all of their waters. However, other UKOTs have focused their conservation efforts at finer geographic scales and at coastal and inshore zones in particular. Two UKOT Governments have volunteered additional, more granular marine protection statistics to accompany the broad indicator K4 results, providing a more nuanced picture of nearshore protection. One UKOT has provided a breakdown of fisheries management measures (across the whole of its waters) by type of prohibition. These supplementary statistics are presented in Table 8 (Appendix 2).

Table 2. Extent and percent coverage of terrestrial and marine protected areas and other effective area-based conservation measures in each UK Overseas Territory by end of December 2024. Percent coverages were calculated relative to total land and sea areas (sea areas defined by the outermost boundaries of each UKOT's waters). The four UKOTs marked with '*' lack formal international maritime boundaries for parts of their waters, therefore sea area calculations used median lines as proxies for boundary positions – these do not represent formal, agreed delimitations and could be subject to change. It should be noted that the UK Government and Mauritius reached a political agreement on 3 October 2024 on the exercise of sovereignty over British Indian Ocean Territory/the Chagos Archipelago. Subject to a formal treaty being agreed, the UK will agree that Mauritius is sovereign over the Chagos Archipelago, including Diego Garcia. Until the Treaty is signed, ratified and then comes into force, the British Indian Ocean Territory will continue to contribute to this indicator.

UK Overseas Territory		Terrestrial protection			Marine protection		
		Area of land (km^2)	Extent of PAs (km^2)	% coverage of PAs	Area of sea (km^2)	Extent of PAs (km^2)	% coverage of PAs
Anguilla *		78.8	0.4	0.5	83,756	71	0.1
Bermuda		53.6	2.4	4.4	464,826	< 1	< 0.01
British Indian Ocean Territory		50.2	19.1	37.9	638,110	637,847	99.96
British Virgin Islands		153.2	4.1	2.7	87,899	52	0.1
Cayman Islands *		266.8	30.4	11.4	120,918	123	0.1
Falkland Islands		12,030.6	353.0	2.9	455,521	0	0.0
Gibraltar		6.6	2.4	36.4	87	77	89.1
Montserrat *		102.8	11.2	10.9	6,771	0	0.0
Pitcairn Islands group		51.8	42.7	82.5	841,995	841,995	100.0
Saint Helena, Ascension, and Tristan da Cunha	Saint Helena	123.0	46.8	38.0	448,411	448,411	100.0
	Ascension Island	96.9	18.9	19.5	445,489	445,489	100.0
	Tristan da Cunha	181.1	81.4	45.0	757,646	691,009	91.2
South Georgia and the South Sandwich Islands		3,793.9	3,793.9	100.0	1,243,517	1,243,517	100.0

UK Overseas Territory	Terrestrial protection			Marine protection		
	Area of land (km^2)	Extent of PAs (km^2)	% coverage of PAs	Area of sea (km^2)	Extent of PAs (km^2)	% coverage of PAs
Sovereign Base Areas of Akrotiri and Dhekelia	254.7	97.1	38.1	397	32	8.2
Turks and Caicos Islands *	497.2	124.7	25.1	153,911	651	0.4

2.3 Confidence in the protected area extent statistics

JNCC has high confidence in the indicator K4 UKOT PA extent statistics because of the predominance of official data – information gathered from government sources – used in the UKOTs' and JNCC's extent calculations. In the absence of quantitative confidence intervals, JNCC qualitatively assessed the impact of data uncertainty on the aggregated PA extent statistics (Section 3.9.1). Although some uncertainties in the underlying data persist (e.g. around limited reporting of OECMs to date and use of proxy international maritime boundaries in particular), JNCC concluded that these sources of uncertainty did not significantly impact the aggregated 2024 results presented in Table 1.

PA data issues, such as the uncertain protection of some offshore islands, affected a small number of sites only. Greater uncertainty surrounds the potential for other current (and future) management measures to be identified and reported as OECMs (see Section 3.9.1). These could make important contributions to terrestrial and marine protection at the individual UKOT level, and potentially also the aggregated statistics for terrestrial protection across the UKOTs. The use of median lines as proxies for international maritime boundaries creates uncertainty in total sea areas and marine PA coverage statistics for five UKOTs. However, once the extent of UKOTs' waters is combined at the all-UKOT level, these potential maritime boundary changes will be small relative to the huge collective area of UKOT waters that is already formally delimited.

Comparing the indicator K4 PA extent statistics with other published figures provided further validation for the aggregated coverage of marine protection across the UKOTs. UNEP-WCMC (2025) country-specific statistics (accessed at ProtectedPlanet.net in May 2025) suggested that PAs cover 71.3% of the marine environment for 11 UKOTs combined – very comparable to indicator K4 results when accounting for the absence of two UKOTs from published ProtectedPlanet.net data. The marine statistics also compare favourably at the Territory level, with 10 UKOTs having similar marine PA percent coverages (less than a 1% difference between Table 2 compared to UNEP-WCMC's statistics). Terrestrial PA extent was not comparable for the UKOTs combined, as ProtectedPlanet statistics did not include the large SGSSI terrestrial PAs at the time of publication (May 2025).

At the individual Territory level, figures for some UKOTs (Table 2) involve much smaller PA extents, land areas and sea areas than the aggregated statistics, making them more sensitive to fine scale errors and issues of data quality or uncertainty. All the issues considered in the uncertainty assessment have a potentially higher impact on Territory-level statistics than the aggregated statistics (Table 4), however their level of impact varies. For example, the impact of poor quality or low-resolution PA boundaries (spatial data) is small in comparison to the potential error in using approximate median lines to measure the size of some UKOTs' waters. Data uncertainty also varies considerably by Territory; more widely applicable issues (such projection choice) typically have a lower impact, whereas the issues with the biggest potential impact (e.g. use of median lines) only affect a subset of UKOTs.

3 Technical background

This section provides methodological and evidence quality information to accompany the indicator K4 PA extent statistics published on the 25 Year Environment Plan Outcome Indicator Framework dashboard (Defra in prep.) and on the JNCC website.

3.1 Geographic scope

Indicator K4 includes 13 of the 14 UKOTs (as shown in Figure 2) and JNCC worked with the Governments and Administrations of all 13 Territories to collate the K4 statistics. British Antarctic Territory is excluded from the indicator, as explained in Section 2 above. The UK Government and Mauritius reached a political agreement on 3 October 2024 on the exercise of sovereignty over British Indian Ocean Territory/the Chagos Archipelago. Subject to a formal treaty being agreed, the UK will agree that Mauritius is sovereign over the Chagos Archipelago, including Diego Garcia. Until the Treaty is signed, ratified and then comes into force, the British Indian Ocean Territory will continue to contribute to this indicator.

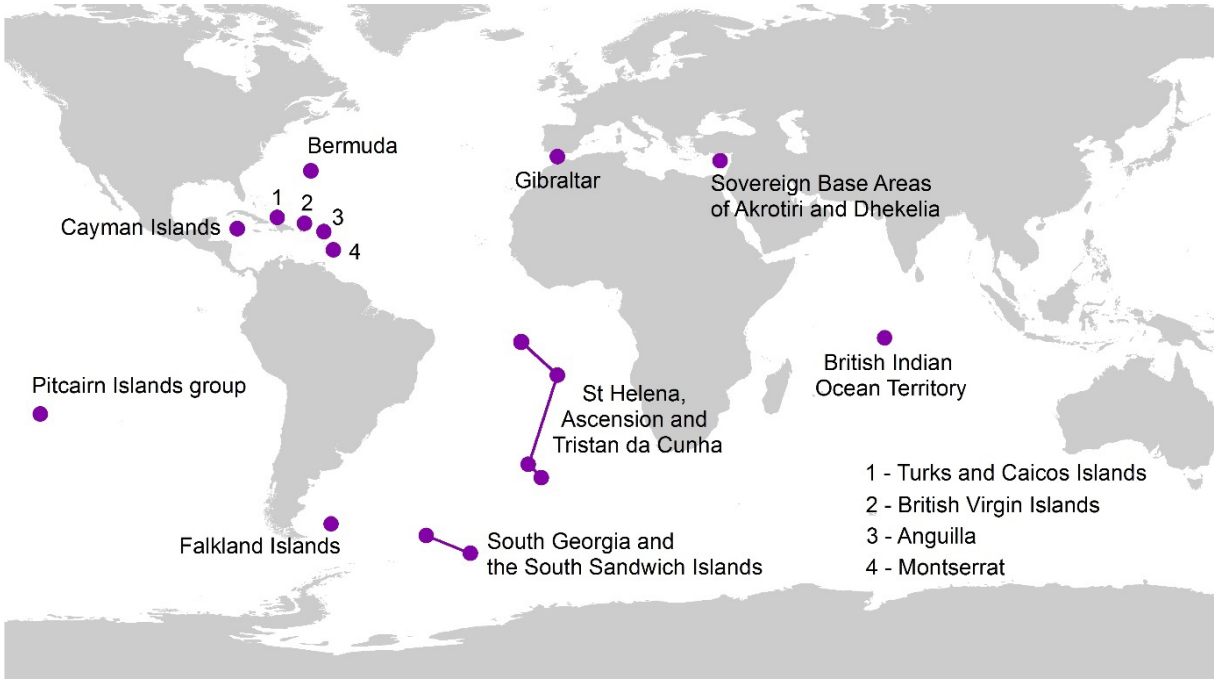

Figure 2. UK Overseas Territories included in 25 Year Environment Plan Outcome Indicator K4. British Antarctic Territory is excluded from indicator K4.

3.2 Data collation

PA extent figures are collated via two routes (Figure 3) and then aggregated across the UKOTs to produce indicator K4 statistics. Both routes use UKOT Governments' PA data.

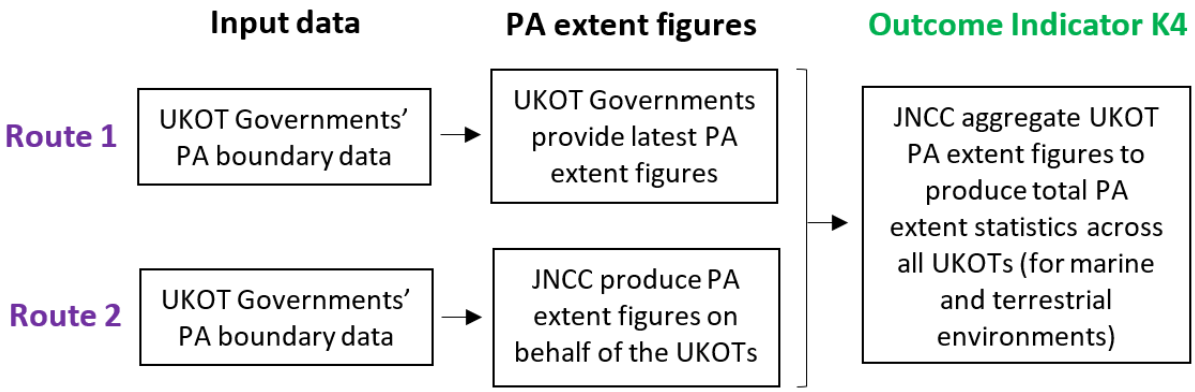

Figure 3. Process for collating or deriving UK Overseas Territory protected area (PA) and other effective area-based conservation measure (OECM) extent figures from government sources and their aggregation into indicator K4 statistics.

UKOT Governments recommended in early discussions that JNCC should use data from government sources in preference to using statistics calculated by third-parties or data from secondary sources. JNCC therefore invites all UKOT Governments and Administrations to provide their own PA extent, land and sea area figures to inform the indicator (route 1, Figure 3). JNCC also encourages this option to ensure indicator K4 is consistent with the policy interpretations and statistics applied within individual UKOTs, thereby improving the value and applicability of indicator K4 for UKOTs' own purposes.

If UKOT Governments decide that route 1 is not possible or desirable, JNCC offers to undertake PA extent calculations on their behalf (route 2, Figure 3). JNCC's calculations are informed by the UKOT Governments' own official PA boundary data and the PA extent figures are confirmed by the Governments before being aggregated with figures from route 1 to produce the indicator. In 2020-2024, seven UKOTs opted to supply their own PA extent figures (route 1), five asked JNCC to calculate PA extent figures on their behalf (route 2), and St Helena, Ascension and Tristan da Cunha took a mixed approach (Table 3).

Table 3. UK Overseas Territory (UKOT) adoption of two methods for supplying indicator K4 PA extent figures: UKOT Governments' providing their own figures (route 1 in Figure 3), or JNCC-led calculations with subsequent confirmation by UKOT Governments (route 2 in Figure 3).

UKOTs in route 1 – providing their own PA extent figures	UKOTs in route 2 – JNCC calculating PA extent on a UKOT's behalf
Bermuda	Anguilla
British Virgin Islands	British Indian Ocean Territory
Cayman Islands	Pitcairn Islands group
Falkland Islands	St Helena, Ascension, and Tristan da Cunha – Ascension Island; Tristan da Cunha
Gibraltar	Sovereign Base Areas of Akrotiri and Dhekelia
Montserrat	

UKOTs in route 1 – providing their own PA extent figures	UKOTs in route 2 – JNCC calculating PA extent on a UKOT's behalf
St Helena, Ascension, and Tristan da Cunha – St Helena South Georgia and the South Sandwich Islands	Turks and Caicos Islands

Digital boundary data were lacking for five marine and eight terrestrial PAs in 2020 to 2021. JNCC digitally delineated the marine sites using descriptions of the site boundaries and printed maps or charts from the time of designation. The boundaries were aligned with the latest UK Hydrographic Office (UKHO) maritime boundary data (where applicable) and confirmed with UKOT Governments before use in PA extent calculations. JNCC digitally delineated the eight terrestrial sites (all penguin colonies on Tristan da Cunha) using GPS data provided by the RSPB, combined with Maxar Vivid satellite imagery from 2021 to 2022.

3.3 Identifying protected areas and other effective area-based conservation measures

Managing the environment is a devolved responsibility and UKOT Governments have adopted a variety of legislative and policy mechanisms to deliver biodiversity conservation. Establishing, recognising and reporting on area-based conservation measures is the responsibility of the individual UKOT Governments. JNCC therefore adopts the UKOT Governments' interpretations of what constitutes a PA and OECM, to ensure that indicator K4 aligns with UKOTs' domestic policy views.

A wide variety of area-based measures have been established for biodiversity conservation across the UKOTs, ranging from no-take zones where all extractive activities are prohibited, through to sustainable use areas where natural resource use is managed hand in hand with biodiversity conservation. A few UKOTs have established area-based measures to address multiple, co-occurring management issues, with biodiversity conservation just one of several purposes for designation.

Indicator K4 includes PAs with a primary biodiversity conservation goal and OECMs, in which nature conservation may be one of several objectives, or not explicitly identified as an objective but delivered incidentally as a by-product of a long-term management regime. By encompassing both PA and OECM concepts, indicator K4 aligns with the scope of Target 3 of the GBF (CBD 2022).

Although indicator K4 is designed to capture the variety of PAs and OECMs in the UKOTs, some parameters for identifying PAs and OECMs need to be consistent to ensure that the indicator remains focussed on biodiversity conservation, temporally defined, and comparable with other related PA indicators and targets. JNCC therefore asks the UKOT Governments to apply three key criteria when identifying and reporting spatial measures for indicator K4:

1) PAs and OECMs must be designated for an in-situ biodiversity conservation purpose and/or be delivering an in-situ biodiversity conservation outcome;
2) PAs and OECMs must be spatially defined; *and*
3) PAs and OECMs must be formally implemented (through legal or other effective means) at the time of reporting.

UKOT Governments have accepted and applied these criteria for indicator K4 purposes, ensuring that sites with no relevance to biodiversity conservation (e.g. those established

purely for heritage/historic reasons), wider measures lacking a specific geographically defined area, and sites proposed or announced but not formally designated, are excluded. The criteria also ensure consistency with the foci of international obligations (e.g. GBF and UN Sustainable Development Goal targets) and a broad level of comparability with associated PA and OECM guidelines (e.g. CBD 2018; Dudley 2008; Day *et al.* 2019).

International PA designations, such as Ramsar Sites and UNESCO World Heritage Sites (where selected against natural criteria) are included in the indicator where UKOT Governments formally recognise these as part of their PA networks. PAs owned and/or managed by private or non-governmental organisations are also included where formally recognised by UKOT Governments and established through legal or other effective means.

The indicator includes large-scale marine PAs supported through the Blue Belt Programme in five of the UKOTs. These sites protect very substantial areas in the Indian, Pacific and South Atlantic Oceans, but they form only a subset of the marine PAs and OECMs implemented across the UKOTs as a whole (all of which are included in indicator K4).

3.4 Terrestrial and marine protected area categorisation

PAs and OECMs are categorised into sites protecting the terrestrial environment, the marine environment, or both, using information on their location, designation type and objectives. UKOTs are asked to confirm what category applies to sites that straddle the coastline. Where available, mean high water (MHW) limits are used as the dividing line between terrestrial and marine environments, otherwise best available (highest resolution and/or the most recent) coastline data are used. The Cayman Islands Government opted to use the vegetated shoreline (beneath MHW) to align with the local legal definition of the coastline.

In some instances, sites formally affording protection to just the terrestrial *or* marine environment (but not both) can have boundaries that inadvertently extend above or below the coastline into a realm that was not the formal target for protection (often because they were drawn using low-resolution or misaligned coastline layers at the time of designation). To avoid exaggerating the breadth and extent of protection, these small, unprotected parts of coastline-straddling sites are excluded from extent calculations.

3.5 Calculating protected area extent

PA extent is calculated as the sum (in square kilometres) of all areas occurring within PAs and OECMs in the terrestrial and marine environments. Overlaps between site boundaries (e.g. where multiple designation types co-occur) are frequent and have to be discounted to prevent overestimating total PA extent. UKOT Governments and JNCC use a geographic information system (GIS) to dissolve boundaries into a layer of non-overlapping polygons, or subtract overlaps to calculate unique extents per PA, before calculating total PA extent. PA boundaries straddling the coastline are split using a MHW limit (or best available coastline) to produce separate extent figures for the terrestrial and marine environments.

JNCC has developed an automated script to calculate PA extent for the UKOTs that opt not to produce and provide their own figures. The script joins a PA boundary layer with a list of PAs to select boundary polygons for calculation; the list contains only those sites that meet the criteria described in Section 3.3 and indicates their terrestrial and/or marine status. Boundaries are dissolved to remove overlaps and intersected with MHW (or best available coastline) data to split sites into their terrestrial and marine sections. The extent of PAs is then summed for terrestrial and marine separately, excluding any terrestrial or marine sections of sites if these realms are not the formal target of protection within that site (see Section 3.4). The script is run for each UKOT, using R version 3.6.1 and the rgeos (0.5-3), rgdal (v1.5-12), raster (3.3-7) packages.

3.6 Land and sea areas

Calculating PA percent coverage requires basemaps of UKOT coastlines, maritime boundaries and international land borders from which land and sea areas can be calculated. Several UKOTs (listed under route 1, Table 3) provided ready-calculated land and sea areas. For the remaining UKOTs (route 2, Table 3), JNCC calculated their land and sea areas on their behalf.

Land areas are calculated using the best available UKOT Government coastline and land-border data. These data sources are typically of higher resolution than open-source global datasets of country boundaries, but data quality issues still arise (see Section 3.9.1). Coastline datasets are periodically upgraded in indicator K4 calculations as higher quality datasets become available, increasing the accuracy and precision of land and sea areas (Section 3.12 explains how these are applied to the historic PA extent time series dataset).

UKOTs' waters are defined by their outermost maritime boundaries for indicator K4 purposes, with the exception of the Sovereign Base Areas of Akrotiri and Dhekelia (where the current 3 NM limit is used) and the Falkland Islands (where the Inner and Outer Conservation Zones are used). The extents of UKOTs' waters are calculated using publicly available maritime boundaries produced by the UKHO, with the exception of the Falkland Islands where Fisheries Department data are used. Five UKOTs do not have agreed international maritime boundaries with neighbouring states, therefore UKHO-calculated median lines provide an interim boundary for the purpose of calculating the approximate total extent of UKOT waters. These median lines do not represent agreed delimitations and could be subject to change if formal international maritime boundaries are negotiated in future.

3.7 Projected coordinate systems

PA extent, land area and sea area figures provided by UKOT Governments are calculated using a variety of native coordinate reference systems suitable for projecting areas (without distortion) at an individual UKOT-scale. JNCC calculations are undertaken using a Lambert Azimuthal Equal-Area (LAEA) projected coordinate system (and WGS 1984 datum) with latitudes of origin and central meridians customised to the mid-point of each UKOT's waters. Eight different projected coordinate systems (PCS) were used in calculations for the 2024 update (listed in Appendix 3); a customised LAEA PCS was used for seven UKOTs.

JNCC tested the impact of projection choice on indicator K4 statistics by comparing the 2024 PA extent statistics (Table 1) with a set of dummy results based on the LAEA PCS only. Area calculations for seven UKOTs were replicated, using customised LAEA projections in place of the UKOTs' native PCS. Once PA extent results had been aggregated for all UKOTs combined, this found less than 0.005% difference in the percent coverage of terrestrial and marine PAs compared to the statistics in Table 1.

3.8 Aggregating extent figures

JNCC aggregates PA and OECM extent, land areas and sea areas across the UKOTs to produce combined extent statistics for all UKOTs (Table 1). Percent coverages (of PAs and OECMs collectively) are calculated from aggregated PA and OECM extent, land area and sea area figures (the latter defined by the outermost boundaries of each UKOT's waters). Terrestrial and marine PA and OECM percent coverages are then presented graphically, for the UKOTs combined, in Figure K4 on the 25 Year Environment Plan Outcome Indicator Framework dashboard.

3.9 Confidence and uncertainty

JNCC's Evidence Quality Assurance Policy defines high confidence as "high agreement between evidence and plenty of good to high quality relevant evidence available". JNCC is confident that the 2024 indicator K4 statistics accurately represent the current extent of PAs and OECMs in the UKOTs, as the data were obtained from official sources or (for a small number of sites) confirmed by UKOT Governments following digital delineation by JNCC. Statistics from another source (ProtectedPlanet.net) are also comparable to the indicator K4 results for PA coverage of the marine environment (see Section 2.3).

3.9.1 Sources of uncertainty

To evaluate indicator confidence in more depth, JNCC qualitatively assessed six sources of uncertainty (Table 4) for sets of statistics at two spatial scales: aggregated statistics for all UKOTs combined and statistics for each individual UKOT (Territory-level). In summary, these areas of uncertainty range from having no effect to a small-to-moderate potential effect on the 2024 aggregated PA coverage statistics. However, the impact of data uncertainty on Territory-level statistics is likely to be greater, where smaller PA extents, land areas and/or sea areas may make the results more sensitive to improvements in data quality, error correction, changes in data interpretation and/or legislative developments (e.g. delineating formal maritime boundaries).

The latest indicator K4 statistics include all PAs or OECMs that UKOT Governments formally recognised at the end of 2024. However, uncertainty remains around the formal protected status of a few locations (e.g. uninhabited offshore islands in one UKOT) and only five OECMs have been reported to date. The K4 reporting criteria (outlined in Section 3.3) are intentionally broad to ensure that a wide range of spatial measures delivering biodiversity conservation are captured, regardless of PA versus OECM status. Nevertheless, uncertainty around the OECM status of some fisheries management measures, and the infancy of the OECM concept within UKOT PA policy in general, makes it reasonably likely that more will be recognised and reported in future, changing the overall extent of OECMs in K4 statistics. This could have a noticeable impact on PA extent and coverage results at the Territory-level and potentially also the aggregated statistics for terrestrial protection across the UKOTs. The effect on aggregated marine PA coverage statistics is likely to be small.

The absence of formal maritime boundaries leads to uncertainty in the size of five UKOTs' waters. Measuring sea areas using approximate median lines (explained in Section 3.6) enables PA coverages to be calculated, but as these are only approximate boundaries, they introduce a degree of uncertainty to the statistics. Progress with formal maritime boundary delimitation has the potential to significantly change these sea area estimates. The impact on the total sea area and marine PA coverage across *all* UKOTs will be minor, as boundary changes in the affected UKOTs (if they occur) will be small relative to the huge scale of UKOTs' combined waters, the majority of which is already formally delimited. However, new formal boundaries will likely create moderate or even large changes to sea area and marine PA percent coverage statistics at the Territory-level.

Coastline data vary in quality across the UKOTs, with low spatial resolution, basic mapping methods (e.g. manual digitisation from satellite images), and/or inconsistent tidal state affecting some of the (best available) datasets that inform land area calculations in the indicator. The resulting margin of error will only be detectable at a very fine scale, so will have negligible impact on the aggregated marine protection statistics and (at most) a small impact on the aggregated terrestrial protection statistics. However, the impact may be more pronounced in Territory-level statistics, especially in UKOTs with a small landmass and/or where terrestrial PAs adjoin or straddle the coastline and have a small overall extent.

Table 4. Current sources of data uncertainty and a qualitative assessment of their potential impact on the 2024 indicator K4 PA extent statistics. The table presents likely impacts on: (a) aggregated statistics (all UKOTs combined); and (b) statistics at the individual UKOT level.

Current source of uncertainty	Relevance to indicator K4	(a) Aggregated statistics				(b) Territory-level statistics			
		Impact on PA extent	Impact on land area	Impact on sea area	Impact on PA % coverage	Impact on PA extent	Impact on land area	Impact on sea area	Impact on PA % coverage
Status of some unreported areas as PAs (e.g. uninhabited islands) and unreported measures as OECMs (e.g. fisheries management areas)	Could impact inclusion of a small number of PAs in a small number of UKOTs. Potential under-reporting of OECMs is more uncertain in both the number and size of measures involved.	Small (marine) to moderate (terrestrial)	n/a	n/a	Small (marine). Small to moderate (terrestrial)	Moderate to large (terrestrial and marine)	n/a	n/a	Moderate to large (terrestrial and marine)
Incomplete or uncertain info on PA/OECM objectives and protected features	Relevant to a small number of UKOTs. Could impact terrestrial versus. marine status of sites that straddle the coast.	Very small (terrestrial and marine)	n/a	n/a	Close to no effect (at 1 decimal place)	Small (terrestrial and marine)	n/a	n/a	Very small (marine) to small (terrestrial)
Quality of PA/OECM mapped boundary data	PA/OECM boundaries may be mapped to old or low-resolution land parcel and/or coastline data	Very small (terrestrial and marine)	n/a	n/a	Close to no effect (at 1 decimal place)	Small (terrestrial and marine)	n/a	n/a	Very small (terrestrial and marine)

Current source of uncertainty	Relevance to indicator K4	(a) Aggregated statistics				(b) Territory-level statistics			
		Impact on PA extent	Impact on land area	Impact on sea area	Impact on PA % coverage	Impact on PA extent	Impact on land area	Impact on sea area	Impact on PA % coverage
Quality of coastline data	Coastline data vary in quality and age. Data of low-resolution and/or inconsistent tidal state are used for several UKOTs.	Very small (marine) to small (terrestrial)	Small	Very small	Close to no effect (marine) to small (terrestrial)	Small (marine) to moderate (terrestrial)	Small to moderate	Very small	Small (marine) to moderate (terrestrial)
Approximate international maritime boundaries (where these are not formally delimited)	Formal maritime boundaries lacking or only partially agreed for five UKOTs; median lines used to approximate the boundaries instead	Very small (marine) to no effect (terrestrial)	n/a	Small	Small (marine) to no effect (terrestrial)	Small (marine). No effect for terrestrial.	n/a	Moderate to very large	Moderate to large (marine only). No effect for terrestrial.
Choice and variety of projected coordinate systems (PCS) used in extent calculations	Choice of PCS creates minor variation in extent results (see Section 3.7). Using a mixture of PCS across the UKOTs creates a minor inconsistency within aggregated results.	Very small (terrestrial and marine)	Very small	Very small	Very small (terrestrial and marine)	Very small (terrestrial and marine)	Very small	Small	Very small (terrestrial and marine)

3.10 Constraints

The indicator K4 PA extent statistics are a measure of the total size of PAs and OECMs, using the formal, outer boundaries of the sites and measures only. The PA extent statistics therefore do not indicate:

- whether management measures are implemented within PAs;
- the type of management occurring (or intended), nor a judgement as to the overall level of protection afforded to biodiversity;
- the spatial and temporal extent of managed zones/areas within PAs;
- the condition of the protected species, habitats, or ecosystems within the PAs;
- progress towards conservation objectives/outcomes; *or*
- the effectiveness of the management measures in place.

In the longer term, indicator K4 also aims to assess the condition of PAs in the UKOTs to provide a more holistic assessment of the contribution of PAs to biodiversity conservation. This requires a method of synthesising UKOT-specific condition metrics to indicate, and be sensitive to, the overall status of ecological elements protected across the UKOTs. This is a challenging component to assess given the substantial variation in environments, ecology, PA types and purposes, environmental policies and data availability across the UKOTs. Developing an approach to track PA condition will therefore take time and require close collaboration with the UKOTs, but, if feasible, will enhance the ecological meaningfulness of indicator K4 and improve understanding around the effectiveness of the UKOTs' conservation interventions.

3.11 Quality control and quality assurance

PA extent figures provided by the UKOT Governments undergo quality control by JNCC to check that extent calculations are scientifically sound. These checks identify technical issues (such as the need to discount overlaps between PAs) which are addressed by the UKOTs before extent figures contribute to K4. Where JNCC calculates PA extent on a UKOT's behalf, JNCC replicates extent calculations in a GIS (ArcGIS v10.1) to corroborate the figures produced using the automated script. JNCC does not attempt to verify the sites that UKOTs report in the indicator, as formally identifying and reporting PAs is a policy decision for the UKOT Governments alone. However, correspondence with UKOT Governments in 2020-2024 indicated that they had applied the three inclusion criteria outlined in Section 3.3.

The work on indicator K4 (published here and on the Outcome Indicator Framework dashboard) is compliant with JNCC's Evidence Quality Assurance Policy. JNCC's risk assessment recognises that indicator K4 figures could have a moderate or even major impact if used to inform UKOT policy decisions on PA designation. Accordingly, the outputs of this work are quality assured by senior JNCC colleagues and Defra's 25 Year Environment Plan Outcome Indicators team. UKOT biodiversity, international marine and conservation policy leads from Defra and FCDO also contribute to review and sign-off.

JNCC is pursuing voluntary application of the Code of Practice for Statistics in the production of indicator K4. A statement of compliance is currently under development and will be published in a future iteration of this report.

3.12 Maintaining the K4 time series dataset

UKOT PA extent statistics for indicator K4 are updated on an annual basis. JNCC maintains a time series dataset of annual PA extent and coverage results for the UKOTs combined and for each Territory individually (Tables 6 and 7, Appendix 2). A time series dataset of land and seas areas is also maintained to audit changes to the denominator values in PA percent coverage calculations.

The whole time series is revised and republished annually to reflect the latest data and account for any corrections or improvements to underlying datasets and/or calculation methods employed by the UKOTs. Notable improvements and corrections are summarised for each UKOT in Appendix 1 (a more detailed inventory of these can be provided on request). Significant errors affecting key results may be corrected within-year, with Defra issuing a correction notification online via the 25 Year Environment Plan Outcome Indicator Framework dashboard. Minor statistical errors are corrected in the next annual update, and corrections to PA extent and/or coverage figures are applied to the relevant historical years within the time series dataset.

Where improvements are made to underlying data or calculation methods, JNCC will also backdate these through the historic time series to minimise the impact of statistical noise on temporal trends, thereby maintaining the sensitivity of the indicator to 'true' change in PA extent. For example, improvements to coastline or maritime limit data may change the area of a UKOT's landmass and seas, impacting PA percent coverage results when no actual change to PAs has taken place. Backdating the revised land and sea area figures eliminates this extraneous variability so that the majority of observed changes in K4 statistics relate to actual, formal changes in PA coverage.

As a rule of thumb, historic PA extent, PA coverage, land or sea area data in the time series are revised where a change results from a data quality or methodological improvement. Conversely, the historic time series is not revised if the change represents a formal political, legal or physical event occurring at a discrete point in time (attributable to a specific year). These politically and/or scientifically relevant events will contribute to the onward trend in PA extent, and their impact will be quantified and documented in the indicator so that users can distinguish these from true growth/decline in PA extent. Table 5 provides examples of situations where revisions are, and are not, applied to the time series dataset.

Table 5. Examples of revisions that would be made (backdated) to improve the quality of the PA extent historic time series dataset and reduce extraneous variability in PA extent trends, plus examples of politically or scientifically relevant events that would not be backdated (instead contributing to the onward trends in PA extent presented in indicator K4).

Data and methodological improvements that are backdated in the PA extent time series	Formal political, legal or physical events contributing to onward PA extent trends (not backdated in the time series)
Improvement to PA boundary data (e.g. following a re-survey and/or using higher resolution source data, but with no formal change to PAs) leading to more accurate and precise PA extent figures. UKOT-led reviews of which existing sites and measures qualify as PAs and OECMs (e.g. in light of new policies, commitments or guidance) resulting in changes to the PAs and OECMs reported in indicator K4. Does not include formal, legal changes to the status of PAs and OECMs. Updated coastline dataset (e.g. following a re-survey, mapping at a constant tidal state, or other methodological improvements) leading to more accurate land area, sea area and PA extent figures. Updated maritime boundaries from UKHO (e.g. following an improvement to coastline data from survey) leading to updated UKOT sea areas. Does not include formal, legislative changes to boundaries. Greater level of precision reported in UKOT-calculated PA extent statistics.	Formal, legal amendments to PAs and OECMs (e.g. changes to boundaries, objectives, marine/terrestrial protected features). Formal, legal change to the status of conservation measures not previously recognised or reported as PAs/OECMs (e.g. formal gazettement of an area as a PA for the first time). Formal change to a UKOT's maritime boundary legislation (e.g. following a formal boundary agreement with a neighbouring state, or an update to baselines written in legislation) creating an updated sea area and revised extents for marine PAs aligned to that maritime boundary. Updated coastline dataset capturing a major coastal boundary change, attributable to a specific event and year (e.g. land reclamation, impact of a natural disaster) leading to updated land and sea areas.

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Appendix 1: Inventory of updates to K4 protected area extent statistics

This appendix contains a list of notable data updates since indicator K4's first publication in 2020. A full inventory (including minor corrections made, and improvements backdated within, the time series) can be provided on request.

2021 update

- Cayman Islands: addition of new marine PAs and replacement of existing marine PAs following their re-designation and expansion in March 2021.
- Tristan da Cunha: addition of a new Marine Protection Zone formally enacted in August 2021; update to five other PAs following work to digitise and improve the accuracy of their boundaries; update to Exclusive Economic Zone boundary.

2022 update

- Ascension Island: boundary change to the terrestrial part of one Nature Reserve.
- British Virgin Islands: removal of PAs erroneously included in 2020 and 2021 (sites proposed but not yet formally gazetted). Extent of terrestrial PAs reduced by 0.6 km^2 and extent of marine PAs reduced by 84 km^2, leaving formally implemented sites only. Corrections applied to 2020 and 2021 PA extent statistics in the time series. Area of sea updated using UKHO maritime boundary data.
- Cayman Islands: addition of three new PAs (two terrestrial, one marine and terrestrial) designated in 2022 and two PA extensions (one terrestrial, one marine and terrestrial).
- Gibraltar: correction to include four OECMs in the marine environment (one dolphin protection zone and three no-anchoring zones), applied to 2020 and 2021 statistics in the time series.
- South Georgia and the South Sandwich Islands (SGSSI): addition of two terrestrial PAs covering 100% of the SGSSI landmass, designated in July 2022.
- Tristan da Cunha: addition of eight terrestrial nature reserves protecting northern rockhopper penguin colonies (boundaries drawn digitally by JNCC), filling a data gap. Corrections applied to 2020 and 2021 statistics in the time series.

2023 update

- Anguilla and Turks and Caicos Islands: area of these UKOTs' seas updated using October 2023 UKHO maritime boundary data.
- Bermuda: recalculation of terrestrial and marine PA extents using improved PA boundary data for higher accuracy. Area of sea updated using October 2023 UKHO maritime boundary data.
- Cayman Islands: extension to two terrestrial PAs and recalculation of the extent of one further terrestrial PA using improved boundary data. Area of sea updated using October 2023 UKHO maritime boundary data.
- Falkland Islands: area of sea updated using latest maritime boundary data from Falkland Islands Government Fisheries Department (obtained October 2023).
- Pitcairn Islands group: area of sea and extent of Pitcairn Islands Marine Reserve updated using October 2023 UKHO maritime boundary data.

2024 update

- Cayman Islands: extension to one terrestrial PA and recalculation of statistics (terrestrial and marine PA extents, area of land and area of sea) using an updated coastline. Change of projection for area of sea calculation.
- South Georgia and the South Sandwich Islands: area of sea and area of the South Georgia and South Sandwich Islands MPA updated, following legal amendments to the baselines used to measure the Maritime Zone.

Appendix 2: Territory-level statistics

The data presented in this appendix are available to download in spreadsheet format from JNCC's Resource Hub.

Table 6. Extent and percent coverage of **terrestrial** protected areas and other effective area-based conservation measures for the UK Overseas Territories (UKOTs) combined and for each UKOT individually, from 2020 to 2024. Results demonstrate the progress in establishing PAs and OECMs as of 31st December in each year. Percent coverages were calculated relative to total land areas (see Table 2, above). "Terrestrial" refers to both land and inland water environments. It should be noted that the UK Government and Mauritius reached a political agreement on 3 October 2024 on the exercise of sovereignty over British Indian Ocean Territory/the Chagos Archipelago. Subject to a formal treaty being agreed, the UK will agree that Mauritius is sovereign over the Chagos Archipelago, including Diego Garcia. Until the Treaty is signed, ratified and then comes into force, the British Indian Ocean Territory will continue to contribute to this indicator.

UK Overseas Territory	Extent or percent coverage	2020	2021	2022	2023	2024
All UKOTs combined	Extent of terrestrial PAs (km^2)	**831.1**	**831.1**	**4,628.0**	**4,628.4**	**4,628.4**
	% coverage of PAs	**4.7**	**4.7**	**26.1**	**26.1**	**26.1**
Anguilla	Extent of terrestrial PAs (km^2)	0.4	0.4	0.4	0.4	0.4
	% coverage of PAs	0.5	0.5	0.5	0.5	0.5
Bermuda	Extent of terrestrial PAs (km^2)	2.4	2.4	2.4	2.4	2.4
	% coverage of PAs	4.4	4.4	4.4	4.4	4.4
British Indian Ocean Territory	Extent of terrestrial PAs (km^2)	19.1	19.1	19.1	19.1	19.1
	% coverage of PAs	37.9	37.9	37.9	37.9	37.9
British Virgin Islands	Extent of terrestrial PAs (km^2)	4.1	4.1	4.1	4.1	4.1
	% coverage of PAs	2.7	2.7	2.7	2.7	2.7
Cayman Islands	Extent of terrestrial PAs (km^2)	26.9	26.9	29.9	30.3	30.4
	% coverage of PAs	10.1	10.1	11.2	11.4	11.4
Falkland Islands	Extent of terrestrial PAs (km^22)	353.0	353.0	353.0	353.0	353.0
	% coverage of PAs	2.9	2.9	2.9	2.9	2.9

UK Overseas Territory		Extent or percent coverage	2020	2021	2022	2023	2024
Gibraltar		Extent of terrestrial PAs (km^2)	2.4	2.4	2.4	2.4	2.4
		% coverage of PAs	36.4	36.4	36.4	36.4	36.4
Montserrat		Extent of terrestrial PAs (km^2)	11.2	11.2	11.2	11.2	11.2
		% coverage of PAs	10.9	10.9	10.9	10.9	10.9
Pitcairn Islands Group		Extent of terrestrial PAs (km^2)	42.7	42.7	42.7	42.7	42.7
		% coverage of PAs	82.5	82.5	82.5	82.5	82.5
Saint Helena, Ascension and Tristan da Cunha	Saint Helena	Extent of terrestrial PAs (km^2)	46.8	46.8	46.8	46.8	46.8
		% coverage of PAs	38.0	38.0	38.0	38.0	38.0
	Ascension	Extent of terrestrial PAs (km^2)	18.9	18.9	18.9	18.9	18.9
		% coverage of PAs	19.5	19.5	19.5	19.5	19.5
	Tristan da Cunha	Extent of terrestrial PAs (km^2)	81.4	81.4	81.4	81.4	81.4
		% coverage of PAs	45.0	45.0	45.0	45.0	45.0
South Georgia and the South Sandwich Islands		Extent of terrestrial PAs (km^2)	0.0	0.0	3,793.9	3,793.9	3,793.9
		% coverage of PAs	0.0	0.0	100.0	100.0	100.0
Sovereign Base Areas of Akrotiri and Dhekelia		Extent of terrestrial PAs (km^2)	97.1	97.1	97.1	97.1	97.1
		% coverage of PAs	38.1	38.1	38.1	38.1	38.1
Turks and Caicos Islands		Extent of terrestrial PAs (km^2)	124.7	124.7	124.7	124.7	124.7
		% coverage of PAs	25.1	25.1	25.1	25.1	25.1

Table 7. Extent and percent coverage of **marine** protected areas and other effective area-based conservation measures for the UK Overseas Territories (UKOTs) combined and for each UKOT individually, from 2020 to 2024. Results demonstrate the progress in establishing PAs and OECMs as of 31st December in each year. Percent coverages were calculated relative to total sea areas (see Table 2, above), defined by the outermost boundaries of each UKOT's waters. The four UKOTs marked with '*' lack formal international maritime boundaries for parts of their waters, therefore sea area calculations used median lines as proxies for boundary positions. It should be noted that the UK Government and Mauritius reached a political agreement on 3 October 2024 on the exercise of sovereignty over British Indian Ocean Territory/the Chagos Archipelago. Subject to a formal treaty being agreed, the UK will agree that Mauritius is sovereign over the Chagos Archipelago, including Diego Garcia. Until the Treaty is signed, ratified and then comes into force, the British Indian Ocean Territory will continue to contribute to this indicator.

UK Overseas Territory	Extent or percent coverage	2020	2021	2022	2023	2024
All UKOTs combined	Extent of marine PAs (km^2)	**3,621,433**	**4,308,679**	**4,308,679**	**4,308,679**	**4,309,275**
	% coverage of PAs	**63.0**	**75.0**	**75.0**	**75.0**	**75.0**
Anguilla *	Extent of marine PAs (km^2)	71	71	71	71	71
	% coverage of PAs	0.1	0.1	0.1	0.1	0.1
Bermuda	Extent of marine PAs (km^2)	0.4	0.4	0.4	0.4	0.4
	% coverage of PAs	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
British Indian Ocean Territory	Extent of marine PAs (km^2)	637,847	637,847	637,847	637,847	637,847
	% coverage of PAs	100.0	100.0	100.0	100.0	100.0
British Virgin Islands	Extent of marine PAs (km^2)	52	52	52	52	52
	% coverage of PAs	0.1	0.1	0.1	0.1	0.1
Cayman Islands *	Extent of marine PAs (km^2)	97	123	123	123	123
	% coverage of PAs	0.1	0.1	0.1	0.1	0.1
Falkland Islands	Extent of marine PAs (km^2)	0	0	0	0	0
	% coverage of PAs	0	0	0	0	0
Gibraltar	Extent of marine PAs (km^2)	77	77	77	77	77
	% coverage of PAs	89.1	89.1	89.1	89.1	89.1

UK Overseas Territory		Extent or percent coverage	2020	2021	2022	2023	2024
Montserrat *		Extent of marine PAs (km^2)	0	0	0	0	0
		% coverage of PAs	0	0	0	0	0
Pitcairn Islands Group		Extent of marine PAs (km^2)	841,995	841,995	841,995	841,995	841,995
		% coverage of PAs	100.0	100.0	100.0	100.0	100.0
Saint Helena, Ascension and Tristan da Cunha	Saint Helena	Extent of marine PAs (km^2)	448,411	448,411	448,411	448,411	448,411
		% coverage of PAs	100.0	100.0	100.0	100.0	100.0
	Ascension	Extent of marine PAs (km^2)	445,489	445,489	445,489	445,489	445,489
		% coverage of PAs	100.0	100.0	100.0	100.0	100.0
	Tristan da Cunha	Extent of marine PAs (km^2)	3,790	691,009	691,009	691,009	691,009
		% coverage of PAs	0.0	91.2	91.2	91.2	91.2
South Georgia and the South Sandwich Islands		Extent of marine PAs (km^2)	1,242,921	1,242,921	1,242,921	1,242,921	1,243,517
		% coverage of PAs	100.0	100.0	100.0	100.0	100.0
Sovereign Base Areas of Akrotiri and Dhekelia		Extent of marine PAs (km^2)	32	32	32	32	32
		% coverage of PAs	8.2	8.2	8.2	8.2	8.2
Turks and Caicos Islands *		Extent of marine PAs (km^2)	651	651	651	651	651
		% coverage of PAs	0.4	0.4	0.4	0.4	0.4

Table 8. Supplementary statistics on the extent and coverage of marine PAs and OECMs for geographic scales, management types or other breakdown relevant to individual Territories. These results were volunteered for publication by the respective UKOT Governments and relate to finer scales, or more granular breakdowns, than the statistics presented in Table 2 (for all PAs and OECMs across the whole of each UKOTs' waters). Statistics for British Virgin Islands and the Cayman Islands are accurate as of the end of 2024; statistics for South Georgia and the South Sandwich Islands are accurate as of May 2025.

UK Overseas Territory	Geographic breakdown of UKOT's waters	Area of waters (km^2)	Type of PA/OECM or management	Extent of marine PAs and OECMs (km^2)	% coverage of PAs and OECMs
British Virgin Islands	Territorial Sea	5,394	All types	52	1.0
Cayman Islands	Coastal shelf (150 ft [45.7 m] depth contour)	214	All types	117	54.8
	Coastal shelf (150 ft [45.7 m] depth contour)	214	No Take Zones	97	45.3
South Georgia and the South Sandwich Islands (SGSSI)	SGSSI Maritime Zone	1,243,517	No Take Zones	470,396	37.8
	SGSSI Maritime Zone	1,243,517	Bottom fishing (all types) prohibited	1,179,737	94.8
	SGSSI Maritime Zone	1,243,517	Pelagic fishing (all types) prohibited	501,315	40.3

Appendix 3: Projected coordinate systems used in indicator K4 extent calculations

Table 9. Projected coordinates systems used in indicator K4 extent calculations. For calculations using Lambert Azimuthal Equal-Area (LAEA), latitudes of origin and central meridians were customised to the mid-point of each UKOT's waters (units in decimal degrees). The Falkland Islands chose a different PCS for sea area calculations, given the large spatial scale of their waters (compared to the smaller spatial scale of their landmass and PAs).

UK Overseas Territory		Projected coordinate system for PA extent, land and sea area calculations
Anguilla		WGS 1984 Lambert Azimuthal Equal-Area, central meridian -62.481158, latitude of origin 19.946334
Bermuda		Bermuda National Grid 2000 (EPSG:3770)
British Indian Ocean Territory		WGS 1984 Lambert Azimuthal Equal-Area, central meridian 71.949438, latitude of origin -6.583298
British Virgin Islands		North American Datum 1983 UTM Zone 20 North (EPSG:26920)
Cayman Islands		WGS 1984 UTM Zone 17 North (EPSG:32617)
Falkland Islands		For land and PA extent calculations: WGS 1984 UTM Zone 21 South (EPSG:32721) For sea area calculations: WGS 1984 Lambert Azimuthal Equal-Area, central meridian -60.0, latitude of origin -57.0
Gibraltar		European Terrestrial Reference System 1989 UTM Zone 30 North (EPSG:25830)
Montserrat		Montserrat 1958 British West Indies Grid (EPSG:2004)
Pitcairn Islands group		WGS 1984 Lambert Azimuthal Equal-Area, central meridian -127.423504, latitude of origin -24.60071
Saint Helena, Ascension, and Tristan da Cunha	Saint Helena	WGS 1984 Lambert Azimuthal Equal-Area, central meridian -5.708613, latitude of origin -15.972834
	Ascension Island	WGS 1984 Lambert Azimuthal Equal-Area, central meridian -14.363839, latitude of origin -7.947698
	Tristan da Cunha	WGS 1984 Lambert Azimuthal Equal-Area, central meridian -11.211127, latitude of origin -38.7616

UK Overseas Territory	Projected coordinate system for PA extent, land and sea area calculations
South Georgia and the South Sandwich Islands	WGS 1984 Albers Equal-Area Conic, central meridian -34.0, latitude of origin -57.0, standard parallels of -54.0 and -60.0
Sovereign Base Areas of Akrotiri and Dhekelia	WGS 1984 Lambert Azimuthal Equal-Area, central meridian 33.277474, latitude of origin 34.750774
Turks and Caicos Islands	WGS 1984 Lambert Azimuthal Equal-Area, central meridian -70.304467, latitude of origin 22.578752