SDG indicator metadata

(Harmonized metadata template - format version 1.1)

0. Indicator information (SDG_INDICATOR_INFO)

0.a. Goal (SDG_GOAL)

Goal 15: Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss

0.b. Target (SDG_TARGET)

Target 15.4: By 2030, ensure the conservation of mountain ecosystems, including their biodiversity, in order to enhance their capacity to provide benefits that are essential for sustainable development

0.c. Indicator (SDG_INDICATOR)

Indicator 15.4.1: Coverage by protected areas of important sites for mountain biodiversity

0.d. Series (SDG_SERIES_DESCR)

ER_PTD_MTN - Average proportion of Mountain Key Biodiversity Areas (KBAs) covered by protected areas [15.4.1]

0.e. Metadata update (META_LAST_UPDATE)

2024-07-29

0.f. Related indicators (SDG_RELATED_INDICATORS)

Other relevant indicators include:

SDG 14.5.1 Coverage of protected areas in relation to marine areas.

SDG 15.1.2 Proportion of important sites for terrestrial and freshwater biodiversity that are covered by protected areas, by ecosystem type.

0.g. International organisations(s) responsible for global monitoring (SDG_CUSTODIAN_AGENCIES)

BirdLife International (BLI)

International Union for Conservation of Nature (IUCN)

UN Environment Programme World Conservation Monitoring Centre (UNEP-WCMC)

UN Environment Programme

1. Data reporter (CONTACT)

1.a. Organisation (CONTACT_ORGANISATION)

BirdLife International (BLI)
International Union for Conservation of Nature (IUCN)
UN Environment Programme World Conservation Monitoring Centre (UNEP-WCMC)

2. Definition, concepts, and classifications (IND_DEF_CON_CLASS)

2.a. Definition and concepts (STAT_CONC_DEF)

Definition:

The indicator Coverage by protected areas of important sites for mountain biodiversity shows temporal trends in the mean percentage of each important site for mountain biodiversity (i.e., those that contribute significantly to the global persistence of biodiversity) that is covered by designated protected areas and Other Effective Area-based Conservation Measures (OECMs).

Concepts:
Protected areas, as defined by the IUCN (IUCN; Dudley 2008), are clearly defined geographical spaces, recognized, dedicated and managed, through legal or other effective means, to achieve the long-term conservation of nature with associated ecosystem services and cultural values.

2.b. Unit of measure (UNIT_MEASURE)

Percent (%) (Mean percentage of each mountain Key Biodiversity Area (KBA) covered by (i.e. overlapping with) protected areas and/or OECMs.)

2.c. Classifications (CLASS_SYSTEM)

Protected Areas are defined as described above by IUCN (IUCN; Dudley 2008) and documented in the World Database on Protected Areas (WDPA). (www.protectedplanet.net).

Importantly, a variety of specific management objectives are recognised within this definition, spanning conservation, restoration, and sustainable use:

- Category Ia: Strict nature reserve
- Category Ib: Wilderness area
- Category II: National park
- Category III: Natural monument or feature
- Category IV: Habitat/species management area
- Category V: Protected landscape/seascape
- Category VI: Protected area with sustainable use of natural resources

The status "designated" is attributed to a protected area when the corresponding authority, according to national legislation or common practice (e.g., by means of an executive decree or the like), officially endorses a document of designation. The designation must be made for the purpose of biodiversity conservation, not de facto protection arising because of some other activity (e.g., military).

Data on protected areas are managed in the WDPA (www.protectedplanet.net) by UNEP-WCMC.

OECMs are defined as described above by the Convention on Biological Diversity (CBD 2018) and documented in the World Database on Other Effective Area-based Conservation Measures (WDOECM) (www.protectedplanet.net/en/thematic-areas/oecms).

OECMs are defined by the Convention on Biological Diversity (CBD) as “A geographically defined area other than a Protected Area, which is governed and managed in ways that achieve positive and sustained long-term outcomes for the in-situ conservation of biodiversity, with associated ecosystem functions and services and where applicable, cultural, spiritual, socio–economic, and other locally relevant values”

(CBD, 2018). Data on OECMs are managed in the WDOECM (www.protectedplanet.net/en/thematic-areas/oecms) by UNEP-WCMC.

Key Biodiversity Areas (KBAs) are defined as described below by IUCN (2016) and documented in the World Database of KBAs (WDKBA) (www.keybiodiversityareas.org/kba-data).

Sites contributing significantly to the global persistence of biodiversity are identified following globally criteria set out in A Global Standard for the Identification of KBAs (IUCN 2016) applied at national levels. KBAs encompass (a) Important Bird & Biodiversity Areas, that is, sites contributing significantly to the global persistence of biodiversity, identified using data on birds, of which more than13,000 sites in total have been identified from all of the world's countries (BirdLife International 2014, Donald et al. 2018); (b) Alliance for Zero Extinction sites (Ricketts et al. 2005), that is, sites holding effectively the entire population of at least one species assessed as Critically Endangered or Endangered on the IUCN Red List of Threatened Species, of which 853 sites have been identified for 1,483 species of mammals, birds, amphibians, reptiles, freshwater crustaceans, reef-building corals, conifers, cycads and other taxa; (c) KBAs identified under an earlier version of the KBA criteria (Langhammer et al. 2007), including those identified in Ecosystem Hotspot Profiles developed with support of the Critical Ecosystem Partnership Fund. These three subsets are being reassessed using the Global Standard, which unifies these approaches along with other mechanisms for identification of important sites for other species and ecosystems (IUCN 2016).

Data on KBAs are managed in the WDKBA (www.keybiodiversityareas.org/kba-data) by BirdLife International on behalf of the KBA Partnership.

3. Data source type and data collection method (SRC_TYPE_COLL_METHOD)

3.a. Data sources (SOURCE_TYPE)

Protected area data are compiled by ministries of environment and other ministries responsible for the designation and maintenance of protected areas. Protected Areas data for sites designated under the Ramsar Convention and the UNESCO World Heritage Convention are collected through the relevant convention international secretariats. Protected area data are aggregated globally into the WDPA by UNEP-WCMC, according to the mandate for production of the United Nations List of Protected Areas (Deguignet et al. 2014). They are disseminated through Protected Planet, which is jointly managed by UNEP-WCMC and IUCN and its World Commission on Protected Areas (UNEP-WCMC 2016).

Other Effective Area-based Conservation Measures (OECMs) are collated in the WDOECM. This database can be regarded as a sister database to the WDPA as it is also hosted on Protected Planet. Furthermore, the databases share many of the same fields and have an almost identical workflow; differing only in what they list. OECMs are a quickly evolving area of work, as such for the latest information on OECMs and the WDOECM please contact UNEP-WCMC.

KBAs are identified at national scales through multi-stakeholder processes, following standard criteria and thresholds. KBAs data are aggregated into the World Database on KBAs, managed by BirdLife International.

3.b. Data collection method (COLL_METHOD)

See information under other sections, and detailed information on the process by which KBAs are identified at www.keybiodiversityareas.org/working-with-kbas/proposing-updating. Guidance on Proposing, Reviewing, Nominating and Confirming KBAs is available in KBA Secretariat (2019) at http://www.keybiodiversityareas.org/assets/35687f50ac0bcad155ab17447b48885a.

The KBA identification process is highly inclusive and consultative: anyone with data on the biodiversity importance of a site may propose it as a KBA if it meets the KBA criteria, and consultation with stakeholders at the national level (both non-governmental and governmental organisations) is required during the proposal process. Any site proposal must undergo independent review. This is followed by the official site nomination with full documentation meeting the Documentation Standards for KBAs. Sites confirmed by the KBA Secretariat to qualify as KBAs are then published on the KBA Website.

Submission of proposals for KBAs to the WDKBA follows a systematic review process to ensure that the KBA criteria have been applied correctly and that the sites can be recognised as important for the global persistence of biodiversity. Regional Focal Points have been appointed to help KBA proposers develop proposals and then ensure they are reviewed independently. Guidance on Proposing, Reviewing, Nominating and Confirming sites has been published to help guide proposers through the development of proposals and the review process, highlighting where they can obtain help in making a proposal.

3.c. Data collection calendar (FREQ_COLL)

UNEP-WCMC produces the UN List of Protected Areas every 5–10 years, based on information provided by national ministries/agencies. In the intervening period between compilations of UN Lists, UNEP-WCMC works closely with national ministries/agencies and NGOs responsible for the designation and maintenance of protected areas, continually updating the WDPA as new data become available. The WDOECM is also updated on an ongoing basis. The WDKBA is also updated on an ongoing basis with updates currently released twice a year, as new national data are submitted.

3.d. Data release calendar (REL_CAL_POLICY)

The indicator of protected area coverage of important sites for biodiversity is updated each November-December using the latest versions of the datasets on protected areas, OECMs and KBAs.

3.e. Data providers (DATA_SOURCE)

Protected area data are compiled by ministries of environment and other ministries responsible for the designation and maintenance of protected areas. KBAs are identified at national scales through multi-stakeholder processes, following established processes and standard criteria and thresholds (see above for details).

3.f. Data compilers (COMPILING_ORG)

BirdLife International, IUCN, UNEP-WCMC

Protected area data are aggregated globally into the WDPA by UNEP-WCMC, according to the mandate for production of the United Nations List of Protected Areas (Deguignet et al. 2014). They are

disseminated through Protected Planet, which is jointly managed by UNEP-WCMC and IUCN and its World Commission on Protected Areas (UNEP-WCMC 2016). KBAs data are aggregated into the WDKBA, managed by BirdLife International (2019).

3.g. Institutional mandate (INST_MANDATE)

Protected area data and OECM data are aggregated globally into the WDPA and WDOECM by the UNEP-WCMC, according to the mandate for production of the United Nations List of Protected Areas (Deguignet et al. 2014).

BirdLife International is mandated by the KBAs Partnership Agreement to manage data on KBAs in the WDKBAs on behalf of the KBAs Partnership.

BirdLife International, IUCN and UNEP-WCMC collaborate to produce the indicator of coverage of KBAs by Protected Areas and OECMs.

4. Other methodological considerations (OTHER_METHOD)

4.a. Rationale (RATIONALE)

The safeguard of important sites is vital for stemming the decline in biodiversity and ensuring long term and sustainable use of mountain natural resources. The establishment of protected areas is an important mechanism for achieving this aim, and this indicator serves as a means of measuring progress toward the conservation, restoration and sustainable use of mountain ecosystems and their services, in line with obligations under international agreements. Importantly, while it can be disaggregated to report on any given single ecosystem of interest, it is not restricted to any single ecosystem type.

Levels of access to protected areas vary among the protected area management categories. Some areas, such as scientific reserves, are maintained in their natural state and closed to any other use. Others are used for recreation or tourism, or even open for the sustainable extraction of natural resources. In addition to protecting biodiversity, protected areas have high social and economic value: supporting local livelihoods; maintaining fisheries; harbouring an untold wealth of genetic resources; supporting thriving recreation and tourism industries; providing for science, research and education; and forming a basis for cultural and other non-material values.

This indicator adds meaningful information to, complements and builds from traditionally reported simple statistics of mountain area covered by protected areas, computed by dividing the total protected area within a country by the total territorial area of the country and multiplying by 100 (e.g., Chape et al. 2005). Such percentage area coverage statistics do not recognise the extreme variation of biodiversity importance over space (Rodrigues et al. 2004), and so risk generating perverse outcomes through the protection of areas which are large at the expense of those which require protection.

The indicator was used to track progress towards the 2011–2020 Strategic Plan for Biodiversity (CBD 2014, Tittensor et al. 2014, CBD 2020a), and was used as an indicator towards the Convention on Biological Diversity's 2010 Target (Butchart et al. 2010). It has been proposed as an indicator for monitoring progress towards the post-2020 Global Biodiversity Framework (CBD 2020b).

4.b. Comment and limitations (REC_USE_LIM)

Quality control criteria are applied to ensure consistency and comparability of the data in the WDPA. New data are validated at UNEP-WCMC through a number of tools and translated into the standard data structure of the WDPA. Discrepancies between the data in the WDPA and new data are minimised by provision of a manual (UNEP-WCMC 2019) and resolved in communication with data providers. Similar processes apply for the incorporation of data into the WDKBA (BirdLife International 2019).

The indicator does not measure the effectiveness of protected areas in reducing biodiversity loss, which ultimately depends on a range of management and enforcement factors not covered by the indicator. A number of initiatives are underway to address this limitation. Most notably, numerous mechanisms have been developed for assessment of protected area management, which can be synthesised into an indicator (Leverington et al. 2010). This is used by the Biodiversity Indicators Partnership as a complementary indicator of progress towards Aichi Biodiversity Target 11 (http://www.bipindicators.net/pamanagement). However, there may be little relationship between these measures and protected area outcomes (Nolte & Agrawal 2013). More recently, approaches to “green listing” have started to be developed, to incorporate both management effectiveness and the outcomes of protected areas, and these are likely to become progressively important as they are tested and applied more broadly.

Data and knowledge gaps can arise due to difficulties in determining whether a site conforms to the IUCN definition of a protected area or the CBD definition of an OECM. However, given that both are incorporated into the indicator, misclassifications (as one or the other) do not impact the calculated indicator value.

Regarding important sites, the biggest limitation is that site identification to date has focused mainly on specific subsets of biodiversity, for example birds (for Important Bird and Biodiversity Areas) and highly threatened species (for Alliance for Zero Extinction sites). While Important Bird and Biodiversity Areas have been documented to be good surrogates for biodiversity more generally (Brooks et al. 2001, Pain et al. 2005), the application of the unified standard for identification of KBA sites (IUCN 2016) across different levels of biodiversity (genes, species, ecosystems) and different taxonomic groups remains a high priority, building from efforts to date (Eken et al. 2004, Knight et al. 2007, Langhammer et al. 2007, Foster et al. 2012). Birds now comprise less than 50% of the species for which KBAs have been identified, and as KBA identification for other taxa and elements of biodiversity proceeds, such bias will become a less important consideration in the future.

KBA identification has been validated for a number of countries and regions where comprehensive biodiversity data allow formal calculation of the site importance (or “irreplaceability”) using systematic conservation planning techniques (Di Marco et al. 2016, Montesino Pouzols et al. 2014).

Future developments of the indicator will include: a) expansion of the taxonomic coverage of mountain KBAs through application of the KBA standard (IUCN 2016) to a wide variety of mountain vertebrates, invertebrates, plants and ecosystem type; b) improvements in the data on protected areas by continuing to increase the proportion of sites with documented dates of designation and with digitised boundary polygons (rather than coordinates); and c) increased documentation of Other Effective Area-based Conservation Measures in the World Database of OECMs.

4.c. Method of computation (DATA_COMP)

This indicator is calculated from data derived from a spatial overlap between digital polygons for protected areas from the World Database on Protected Areas (UNEP-WCMC & IUCN 2020), digital polygons for Other Effective Area-based Conservation Measures from the World Database on OECMs and digital polygons for mountain Key Biodiversity Areas (from the World Database of Key Biodiversity Areas, including Important Bird and Biodiversity Areas, Alliance for Zero Extinction sites, and other Key Biodiversity Areas). Sites were classified as mountain Key Biodiversity Areas by undertaking a spatial overlap between the Key Biodiversity Area polygons and a mountain raster layer (UNEP-WCMC 2002), classifying any Key Biodiversity Area as a mountain Key Biodiversity Area where it had ≥5% overlap with the mountain layer. The value of the indicator at a given point in time, based on data on the year of protected area establishment recorded in the World Database on Protected Areas, is computed as the mean percentage of each Key Biodiversity Area currently recognised that is covered by protected areas and/or Other Effective Area-based Conservation Measures.

Protected areas lacking digital boundaries in the World Database of Protected Areas, and those sites with a status of 'proposed' or 'not reported' are omitted. Degazetted sites are not kept in the WDPA and are also not included. Man and Biosphere Reserves are also excluded as these often contain potentially unprotected areas. Year of protected area establishment is unknown for ~12% of protected areas in the World Database on Protected Areas, generating uncertainty around changing protected area coverage over time. To reflect this uncertainty, a year was randomly assigned from another protected area within the same country, and then this procedure repeated 1,000 times, with the median plotted.

Prior to 2017, the indicator was presented as the percentage of Key Biodiversity Areas completely covered by protected areas. However, it is now presented as the mean % of each Key Biodiversity Area that is covered by protected areas in order to better reflect trends in protected area coverage for countries or regions with few or no Key Biodiversity Areas that are completely covered.

4.d. Validation (DATA_VALIDATION)

Protected Areas and OECMs are validated through dialogue with the governing authority, who signs a data contributor agreement that these sites are, to the best of their knowledge, an accurate depiction of the sites in question. Over time the data for sites may improve or other aspects of the sites may change, as and when this occurs a further data sharing agreement is required by the site's governing authority.

Proposed KBAs undergo detailed checking by Regional Focal Points, formal Review of KBA Proposals by independent Reviewers, and validation of Nominated KBAs by the KBAs Secretariat. For further information, see the Guidance on Proposing, Reviewing, Nominating and Confirming KBAs available in KBA Secretariat (2019) at http://www.keybiodiversityareas.org/assets/35687f50ac0bcad155ab17447b48885a.

When the indicators of protected area coverage of KBAs are updated each year, the updated indicators (and underlying numbers of protected areas, OECMs, and KBAs) are made available for review by countries prior to submission to the SDG Indicators Database. This is achieved through updating the country profiles in the Integrated Biodiversity Assessment Tool (https://ibat-alliance.org/country_profiles) and circulating these for consultation and review to CBD National Focal Points, SDG National Statistical Office Focal Points, and IUCN State Members.

When the indicators of protected area coverage of Key Biodiversity Areas are updated each year, the updated indicators (and underlying numbers of protected areas, Other Effective Area-based Conservation Measures, and Key Biodiversity Areas) are made available for review by countries prior to submission to the SDG Indicators Database. This is achieved through updating the country profiles in the Integrated Biodiversity Assessment Tool (https://ibat-alliance.org/country_profiles) and circulating these for consultation and review to CBD National Focal Points, SDG National Statistical Office Focal Points, and IUCN State Members.

4.e. Adjustments (ADJUSTMENT)

No adjustments are made to the index with respect to harmonization of breakdowns or for compliance with specific international or national definitions.

4.f. Treatment of missing values (i) at country level and (ii) at regional level (IMPUTATION)

- **At country level**

Data are available for protected areas and KBAs in all of the world's countries, and so no imputation or estimation of national level data is necessary.

- **At regional and global levels**

Global indicators of protected area coverage of important sites for biodiversity are calculated as the mean percentage of each KBA that is covered by protected areas and Other Effective Area-based Conservation Measures. The data are generated from all countries, and so while there is uncertainty around the data, there are no missing values as such and so no need for imputation or estimation.

4.g. Regional aggregations (REG_AGG)

Regional indices are calculated as the mean percentage of each KBA in the region covered by (i.e. overlapping with) protected areas and/or OECMs: in other words, the percentage of each KBA covered by these designations, averaged over all KBAs in the particular region.

4.h. Methods and guidance available to countries for the compilation of the data at the national level (DOC_METHOD)

PAs

Data on protected areas are submitted by government agencies to the WDPA and disseminated through Protected Planet. The WDPA has its origins in a 1959 UN mandate when the United Nations Economic and Social Council called for a list of national parks and equivalent reserves Resolution 713 (XXVIII).

Protected areas data are therefore compiled directly from government agencies, regional hubs and other authoritative sources in the absence of a government source. All records have a unique metadata identifier (MetadataID) which links the spatial database to the Source table where all sources are described. The data is collated and standardised following the WDPA Data Standards and validated with the source. The process of collation, validation and publication of data as well as protocols and the WDPA data standards are regularly updated in the WDPA User Manual (https://www.protectedplanet.net/c/wdpa-manual) made available through www.protectedplanet.net

where all spatial data and the Source table are also published every month and can be downloaded. The WDPA User Manual (published in English, Spanish, and French) provides guidance to countries on how to submit protected areas data to the WDPA, the benefits of providing such data, and the data standards and quality checks that are performed.

OECMS

Guiding principles, common characteristics and criteria for identification of OECMs are available in CBD (2018) at https://www.cbd.int/doc/decisions/cop-14/cop-14-dec-08-en.pdf.

Guidance on recognising and reporting other effective area-based conservation measures is available in IUCN-WCPA Task Force on OECMs (2019) at: https://portals.iucn.org/library/node/48773.

KBAs

The "Global Standard for the Identification of KBAs" (https://portals.iucn.org/library/node/46259) comprises the standard recommendations available to countries in the identification of KBAs. Guidelines for using A global standard for the identification of KBAs are available at https://portals.iucn.org/library/node/49131.
Guidance on Proposing, Reviewing, Nominating and Confirming KBAs is available in KBA Secretariat (2019) at http://www.keybiodiversityareas.org/assets/35687f50ac0bcad155ab17447b48885a.

A summary of the process by which KBAs are identified is available at www.keybiodiversityareas.org/working-with-kbas/proposing-updating.

The KBA identification process is highly inclusive, consultative and nationally driven. Anyone with appropriate data may propose a site as a KBA, although consultation with relevant stakeholders at the local and national level is required when identifying the site and needs to be documented in the proposal. In order to propose a site as a KBA, a proposer must apply the KBA criteria to data on biodiversity elements (species and ecosystems) at the site. Associated with the proposal process is the need to delineate the site accurately so that its boundaries are clear. Although anyone with appropriate scientific data may propose a site to qualify as a KBA, wide consultation with stakeholders at the national level (both non-governmental and governmental organizations) is required during the proposal process. The formal proposal is then made using a proposal process that ensures there is an independent review of the proposal before a site is incorporated in the WDKBA. This is important given that KBA status of a site may lead to changes in actions of governments, private sector companies and other institutions following consultation as appropriate.

KBA identification builds off the existing network of KBAs, including those identified as (a) Important Bird & Biodiversity Areas through the BirdLife Partnership of over 115 national organisations (https://www.birdlife.org/who-we-are/), (b) Alliance for Zero Extinction sites by 93 national and international organisations in the Alliance (http://www.zeroextinction.org/partners.html), and (c) other KBAs by civil society organisations supported by the Critical Ecosystem Partnership Fund in developing ecosystem profiles, named in each of the profiles listed here (http://www.cepf.net), with new data strengthening and expanding expand the network of these sites.

The main steps of the KBA identification process are the following:

i) submission of Expressions of Intent to identify a KBA to Regional Focal Points;

ii) Proposal Development process, in which proposers compile relevant data and documentation and consult national experts, including organizations that have already identified KBAs in the country, either through national KBA Coordination Groups or independently;
iii) review of proposed KBAs by Independent Expert Reviewers, verifying the accuracy of information within their area of expertise; and
iv) a Site Nomination phase comprising the submission of all the relevant documentation for verification by the KBAs Secretariat. Sites confirmed by the KBAs Secretariat to qualify as KBAs are then published on the KBAs website (http://www.keybiodiversityareas.org/home).

Once a KBA is identified, monitoring of its qualifying features and its conservation status is important. Proposers, reviewers and those undertaking monitoring can join the KBAs Community to exchange their experiences, case studies and best practice examples.

The R code for calculating protected area coverage of KBAs is documented in Simkins et al. (2020).

4.i. Quality management (QUALITY_MGMNT)

For protected areas and OECMs, please see the section on validation. Ensuring the WDPA and WDOECM remain an accurate and true depiction of reality is a never-ending task; however, over time the quality of the data (e.g. the proportion of sites with defined boundaries) is increasing.

For KBAs, see above and below, plus the guidance on Proposing, Reviewing, Nominating and Confirming KBAs which is available in KBA Secretariat (2019) at http://www.keybiodiversityareas.org/assets/35687f50ac0bcad155ab17447b48885a. Data quality is ensured through wide stakeholder engagement in the KBA proposal process, data checking by Regional Focal Points, formal Review of KBA Proposals by independent Reviewers, and validation of Nominations by the KBAs Secretariat. Furthermore, an independent KBA Standards and Appeals Committee ensures the correct application of the Global Standard for the identification of KBAs, and oversees a formal Procedure for handling of appeals against the identification of KBAs (see http://www.keybiodiversityareas.org/assets/1b388c918e14c5f4c3d7a0237eb0d366).

4.j Quality assurance (QUALITY_ASSURE)

Information on the process of how protected area data are collected, standardised and published is available in the WDPA User Manual at: https://www.protectedplanet.net/c/wdpa-manual which is available in English, French and Spanish. Specific guidance is provided at https://www.protectedplanet.net/c/world-database-on-protected-areas on, for example, predefined fields or look up tables in the WDPA: https://www.protectedplanet.net/c/wdpa-lookup-tables, how WDPA records are coded how international designations and regional designations data is collected, how regularly is the database updated, and how to perform protected areas coverage statistics.

Data quality in the process of identifying KBAs is ensured through processes established by the KBA Partnership and KBA Secretariat. Data quality is ensured through wide stakeholder engagement in the KBA proposal process, data checking by Regional Focal Points, formal Review of KBA Proposals by independent Reviewers, and validation of Nominations by the KBA Secretariat.

In addition, the Chairs of the IUCN Species Survival Commission and World Commission on Protected Areas (both of whom are elected by the IUCN Membership of governments and non-governmental

organisations), appoint the Chair of an independent KBA Standards and Appeals Committee, which ensures the correct application of the Global Standard for the identification of KBA, and oversees a formal Procedure for handling of appeals against the identification of KBAs (see http://www.keybiodiversityareas.org/assets/1b388c918e14c5f4c3d7a0237eb0d366).

Before submission to the UN SDG Indicators database the annually updated indicators of coverage of KBAs by protected areas and Other Effective Area-based Conservation Measures are incorporated into updated Country Profiles on the Integrated Biodiversity Assessment Tool (https://ibat-alliance.org/country_profiles) and then sent for consultation to National Focal Points of the Convention on Biological Diversity (https://www.cbd.int/information/nfp.shtml), National Statistics Offices SDG Representatives and UN Permanent Missions (Geneva) representatives.

4.k Quality assessment (QUALITY_ASSMNT)

High.

Each custodian agency is responsible for quality management of their own database.
Quality assessment of the indicator is shared between the indicator custodian agencies.

5. Data availability and disaggregation (COVERAGE)

Data availability:
This indicator has been classified by the IAEG-SDGs as Tier 1. Current data are available for all countries in the world, and these are updated on an ongoing basis. Index values for each country are available in the UN SDG Indicators Database https://unstats.un.org/sdgs/indicators/database/. Graphs of Protected area coverage of Key Biodiversity Areas are also available for each country in the BIP Indicators Dashboard (https://bipdashboard.natureserve.org/bip/SelectCountry.html), and the Integrated Biodiversity Assessment Tool Country Profiles (https://ibat-alliance.org/country_profiles).

Underlying data on protected areas and Other Effective Area-based Conservation Measures are available at www.protectedplanet.net. Data on Key Biodiversity Areas are available at www.keybiodiversityareas.org. Data on subsets of KBAs are available for Important Bird and Biodiversity Areas at http://datazone.birdlife.org/site/search and for Alliance for Zero Extinction sites at https://zeroextinction.org.

Disaggregation:
Given that data for the global indicator are compiled at national levels, it is straightforward to disaggregate to national and regional levels (e.g., Han et al. 2014), or conversely to aggregate to the global level. Key Biodiversity Areas span all ecosystem types through the marine environment (Edgar et al. 2008) and beyond. The indicator can therefore be reported in combination across marine systems along with terrestrial or freshwater systems, or disaggregated among them. However, individual Key Biodiversity Areas can encompass marine, terrestrial, and freshwater systems simultaneously, and so determining the results is not simply additive.

6. Comparability / deviation from international standards (COMPARABILITY)

Sources of discrepancies:
National processes provide the data that are incorporated into the WDPA, the WDOECM, and the World Database of KBAs, so there are very few discrepancies between national indicators and the global one. One minor source of difference is that the WDPA incorporates internationally-designated protected areas (e.g., UNESCO World Heritage sites, Ramsar sites, etc), a few of which are not considered by their sovereign nations to be protected areas.

Note that because countries do not submit comprehensive data on degazetted protected areas to the WDPA, earlier values of the indictor may marginally underestimate coverage. Furthermore, there is also a lag between the point at which a protected area is designated on the ground and the point at which it is reported to the WDPA. As such, current or recent coverage may also be underestimated.

7. References and Documentation (OTHER_DOC)

URL:
http://www.unep-wcmc.org/ ; http://www.birdlife.org/ ; http://www.iucn.org/

References:

BIRDLIFE INTERNATIONAL (2014). Important Bird and Biodiversity Areas: a global network for conserving nature and benefiting people. Cambridge, UK: BirdLife International. Available at datazone.birdlife.org/sowb/sowbpubs#IBA.

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