

THE BENEFITS FROM MAKING COMPREHENSIVE ASSESSMENTS OF KBAs

KBA
KEY BIODIVERSITY AREAS

Red Panda © Janko Ferlic / Unsplash

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WHAT DO WE MEAN BY A COMPREHENSIVE ASSESSMENT?

Currently nearly every country in the world has at least one Key Biodiversity Area (KBA) identified. As the KBA Programme builds on BirdLife's Important Bird and Biodiversity Areas programme, many of the existing KBAs have been identified for birds only and require reassessment and updating. KBAs can be identified for any multicellular species, ecosystem or site of ecological integrity where site conservation is appropriate and can be applied in terrestrial, freshwater, marine and subterranean realms. There will therefore be many unidentified KBAs present in countries and the KBA Programme supported by the KBA Partners is seeking to work with countries to identify these sites.



Reassessment KBA *Alto de Ventanas*, Colombia © Humboldt Institute

To make a comprehensive assessment of KBAs, scientific experts and other knowledge holders need to assess available biodiversity data within a country, potentially gathering new biodiversity data for some parts of a country, that can help them apply the KBA Criteria. Countries will vary in the amount of data they have on species and ecosystems and over time it is likely that more sites will be identified as more data becomes available. However, there is great value in making a first comprehensive assessment using the available data and we document here what those values are, based on the experiences we have learned from ten countries that have done this. A comprehensive assessment of KBAs aims therefore, to apply most of the KBA criteria to as many species groups and ecosystems for which data exist or can be collected.



KBA Bwindi Impenetrable National Park, Uganda © Thomas Fuhrmann

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THE PROCESS OF MAKING A COMPREHENSIVE ASSESSMENT OF KBAs

Formation of KBA National Coordination Group



Most countries are forming a KBA National Coordination Group ([KBA NCG](#)) before they start the process of making a comprehensive assessment of their KBAs. These groups usually consist of members of government agencies, scientific establishments (such as universities, museums and herbaria), and the conservation community (including KBA partners where present in country), bringing them together to identify globally significant sites, often for the first time. The KBA Partnership encourages representatives of Indigenous peoples and Local Communities to be involved in these groups so that they contribute to the identification of sites, and ensure that their rights are respected during the KBA assessment process. Where IPLCs are not represented nationally they should still be invited to contribute in assessments of sites for which they have information, and particularly where they manage those sites. The KBA NCG then coordinates and manages the process of making a comprehensive assessment, organising the training in the application of the KBA criteria, coordinating the various expert groups (often organized by taxon or ecosystem type) as they compile and work on their data of biodiversity distributions, supporting GIS analyses where required and eventually proposing and nominating sites for publishing in the World Database of KBAs. Government representation on the KBA NCG ensures that the KBAs identified are incorporated in land-use planning and other processes.

Work of scientific experts

Scientific experts with relevant data on the distribution of biodiversity for KBA assessments are generally organised in thematic groups (e.g. taxonomic groups, ecosystem types or groups with a regional focus) who work together to identify KBAs. Where species or ecosystems have been assessed by IUCN Red List Specialist Groups then these experts will often be familiar with the type of data needed for KBA assessments. In other situations, biodiversity forums already exist and these can be used to take on the role of the KBA NCG with the inclusion of more experts to ensure adequate representation. A scoping of potential



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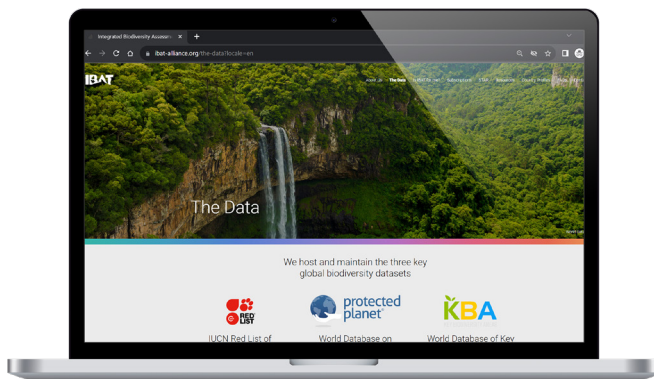
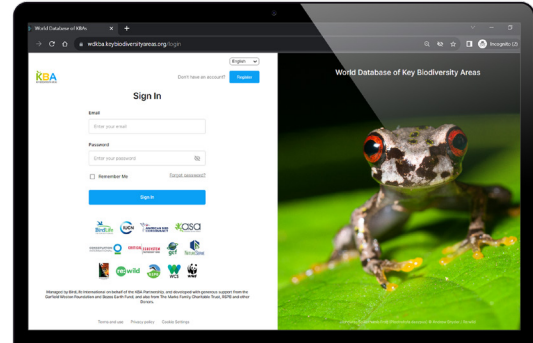
trigger elements for KBAs is first compiled using the available data and then the shortlist of species and ecosystems examined in more detail to assess if they meet the KBA criteria thresholds at any site. The KBA criteria thresholds are based on the proportion of the global value being measured (e.g. mature individuals, range area, ecosystem extent, etc.) so there is a need to assess the global values as well as site values for each biodiversity element. The KBA NCG coordinates the different thematic groups working to ensure that KBA boundaries are harmonised to produce an acceptable boundary for all trigger elements at a site. Depending on the size of the country, the amount of biodiversity data available, and the funding



raised, this process can take from 2-4 years or longer. For example, in Mozambique it took 2 years to compile all the biodiversity data and identify 29 sites, together with potential additional sites where data are currently being collected. The Ministry of Land and Environment also endorsed the sites and incorporated them in the National Territorial Development Plan and the Marine Spatial Plan for the country. A further year was needed to develop a decree on the avoidance of KBAs for development projects and the development of a clause in the Ministerial Diploma on Biodiversity Offsets that KBAs could be receiving areas for offset funding.

Formally proposing sites for publishing

Once site boundaries are agreed through national or regional consultation and review processes led by the NCG, they are formally documented and proposed for validation and for eventual publishing in the [World Database of KBAs](#). This process involves a review and validation of all sites to check that KBA criteria have been applied correctly and ensures that sites that are published are consistent and comparable between countries and regions of the world. The KBA Secretariat oversees the review and



validation of KBAs through its [Regional Focal Points](#) and Validation Expert. NCGs can also organize more extensive in-country review processes if this is considered to be important to get buy-in from KBA information end users. This is usually done before review by the Regional Focal Points. Once published, the data related to each KBA is made available to governments, donors and the conservation community through the [KBA website](#) and to the private sector through the Integrated Biodiversity Assessment Tool ([IBAT](#)).

THE VALUE OF MAKING A COMPREHENSIVE ASSESSMENT OF KBAs



A comprehensive assessment of KBAs is crucial if the full value of KBAs in implementing the Kunming-Montreal Global Biodiversity Framework (KMGBF) and related processes is to be realised. To know where to act to reduce the risks of species extinction and ecosystem collapse (Goal A of KMGBF); to develop conservation plans (Target 1); to appropriately site new Protected and Conserved Areas (Target 3), to prioritise sites for restoration (Target 2) or urban greening (Target 12), mainstreaming biodiversity (Target 14) and engaging the private sector in biodiversity conservation (Target 15) we need a comprehensive understanding of where the sites of particular importance for biodiversity are located and what their defining biodiversity features are. There are many values that result from going through the process of making a comprehensive assessment of KBAs which we document here:

KBA NCG's supporting biodiversity conservation at a national scale



While it takes time to form a KBA NCG and also requires resources for it to function, the benefits seen when comparing countries that have a functioning KBA NCG with those that do not is clear. Forming a KBA NCG in a country helps coordinate the KBA process but also provides a body of people and institutions who can help ensure that the KBAs identified are also recognised within the country and moved into national policy and legislation. There is never complete biodiversity data for a country and over time as more data are collected the KBA NCG also acts as a body that can encourage updates to the KBA network based on new data. This group can work to ensure KBAs are monitored over time in country and that they are ultimately conserved for the biodiversity elements that trigger KBA status. Having a national group focused on the spatial distribution of biodiversity increases awareness and provides a focus that keeps Nature on the agenda of government and civil society in a country.

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Compilation of biodiversity data for country to use data to influence policy

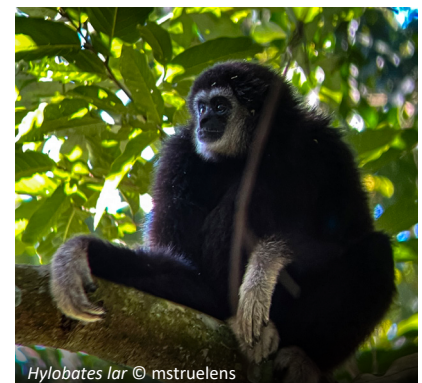


In many countries the biodiversity data that exist is dispersed among different institutions, on individual scientist's computers, or databases, often dedicated to specific taxonomic groups. Scientists regularly struggle to influence the conservation of species or sites when data are patchy and dispersed. The process of identifying KBAs in a country ensures there is a mechanism where their data can be used to conserve species or ecosystems they care about, as well as influence policy around the conservation of the sites where they occur. In addition, few countries have a centralised National Biodiversity Database.

Making a comprehensive assessment of KBAs necessarily involves working through the available biodiversity data in a country and helps centralise knowledge about that biodiversity. The process also integrates an assessment of the quality of the available biodiversity data resulting in a parsing of the data by many experts that make it useful for other processes. It provides data/information that has been assessed, made sense of, and turned into something that is more useful for national planning and policy. In some countries it has led to the establishment of a National Biodiversity Database and/or a National KBA database that manages the data for the country. In Mozambique for example, their database became a web-portal, the [Mozambique Biodiversity Information System](#), which is also the country's CBD Clearing House Mechanism. This makes it easier for governments to plan for their biodiversity because the information is more accessible.

Providing a mechanism for applying data on biodiversity elements for conservation

Many national conservation plans have been built around a focus on vertebrates, particularly mammals and birds. However, Goal A of the KMGBF aims to halt extinctions and biodiversity loss. This will only be achieved if all countries focus on all biodiversity, evaluating all ecosystems and taxonomic groups of species. Including all available data on these biodiversity elements in KBA identification, and planning to update KBA assessments over time as more data become available, provides a mechanism for all stakeholders in biodiversity conservation to engage. It is noticeable that experts in taxonomic groups that are not often a focus of conservation are particularly excited by the KBA process.

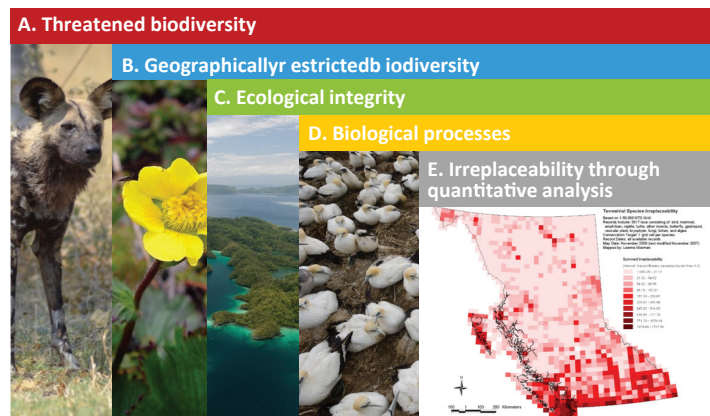


Often scientists have been involved in assessing the threat status of species, using the IUCN Red List of Threatened Species categories and criteria, or threat status of an ecosystem using the Red List of Ecosystem criteria, but once a species/ecosystem is identified as threatened there hasn't been an obvious process to use that information and work to conserve it. Not all threatened biodiversity will trigger KBA status at a site but often species or ecosystems are threatened because they are geographically restricted and low in number/extent, and these are the types of biodiversity elements that are likely to have sites that meet KBA status. The KBA approach provides a mechanism and process to use the analysis of IUCN threat status of a species or for ecosystems to then do something about raising their profile and conserving them. The ability to use the data to influence conservation also has provided stronger motivation to experts to collect more data and propose additional sites in countries such as South Africa.

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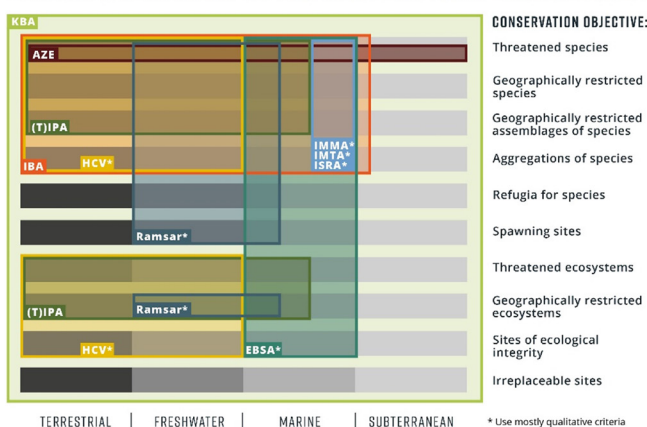
Applying all KBA criteria to ensure all biodiversity features are conserved

Much thinking and consultation went into the development of the 11 KBA criteria which are nested within five criteria categories: Threatened biodiversity (species or ecosystems); Geographically Restricted Biodiversity (species, species assemblages or ecosystems); Ecological Integrity; Biological Processes; and Irreplaceability. Applying as many of these criteria as possible in a country will ensure that each of these features of biodiversity will be considered. Identifying KBAs comprehensively will identify globally significant sites for species, ecosystems, ecological integrity and irreplaceability. Not all KBAs will be priorities for conservation in a country but the information is useful for informing systematic conservation planning (SCP) within a country. However, if a SCP process doesn't consider all these overarching conservation criteria, then it will not be comprehensive either. South Africa is the only country to have made both a national SCP using the software Marxan, as well as a comprehensive KBA assessment. They focused on threatened species and all ecosystems when developing their plan. The recent assessment of KBAs in South Africa identified additional sites for geographically restricted but unthreatened biodiversity which were not incorporated in the SCP because geographic restriction wasn't one of the features targeted when making the plan. They are now including these additional sites in a revision of their conservation plan. We would therefore encourage all spatial planning to consider applying the five KBA criteria categories at a minimum but better still would be to apply all KBA criteria and identify all KBAs in the country to then use that information to guide spatial planning.



Engaging the conservation and scientific community around a common objective

IDENTIFYING AREAS OF IMPORTANCE FOR BIODIVERSITY



AZE: Alliance for Zero Extinction sites; IBA: Important Bird Area; IBA: Important Bird Area; HCV: Area of High Conservation Value; IMMA: Important Marine Mammal Area; IMTA: Important Marine Turtle Area; ISRA: Important Shark and Ray Area; Ramsar: internationally important wetland; EBSA: Ecologically or Biologically Significant Marine Area

The KBA approach acts as an umbrella approach that is applicable to all taxonomic groups and ecosystems, and as a result it has the power to be a nexus for gathering all biodiversity conservation actors under it. Because it is powerful and clearly able to identify sites for many biodiversity elements, it is hard to ignore, and so most large NGOs, scientists, and governments want to get involved and as a result become united in the use of this one approach, contributing to raising awareness about the biodiversity information and prioritizing it for decision-making. In Canada this has been an important reason for engagement by people and institutions and an example of the power of making a comprehensive and inclusive KBA assessment.

KBA PARTNERS:

Engages government, mainstreaming biodiversity conservation



Making comprehensive assessments of KBAs across a country has worked well to engage governments in countries where this has happened, leading to stronger support for biodiversity conservation in general. Raising awareness of the use of KBAs in the KMGBF, as indicators of Sustainable Development Goals 14 and 15, and their use by the private sector in performance standards and disclosure frameworks shows the relevance of identifying the KBAs at a global level. Additionally, it helps governments with implementation of the KMGBF and SDGs and facilitates their reporting to these processes, saving time and resources. It provides a tool to integrate biodiversity conservation more easily into national processes, helping to mainstream biodiversity in decision-making. When making a KBA assessment it is important to keep this in mind and make sure that the process is also encouraging this engagement across government sectors.

Engaging IPLCs, providing a mechanism to recognise their efforts in conservation

Involving Indigenous peoples and Local Communities (IPLCs) in KBA assessments fosters community-based conservation initiatives. IPLCs can often contribute to the KBA assessment process by providing information on biodiversity distributions but also can help with good understanding of the land to better delineate sites. In some countries, such as Ecuador, indigenous peoples groups have embraced KBAs as they recognise the value KBAs provide in helping them create recognition for their lands and ensuring their protection. Empowering IPLCs with knowledge about the importance of KBAs and how they are being used can lead to sustainable resource management practices and local support for conservation efforts.



Biodiversity monitoring



Comprehensive assessments of KBAs provide baseline data on the biodiversity within KBAs. Regular monitoring of these areas allows for the evaluation of changes over time. Monitoring also helps to detect early signs of threats or declines in biodiversity, enabling prompt conservation interventions. Each KBA is defined by specific trigger elements which makes it clear what should be monitored at a site, rather than implement extensive and costly monitoring programmes that aim to monitor everything. A standardised monitoring approach has been designed for the KBA Programme which will be implemented from 2024. This monitors the state of the biodiversity elements that trigger KBA status, the pressures to these elements and the conservation actions being implemented to tackle the threats.

KBA PARTNERS:

Research results feeding into education more broadly



Comprehensive assessments of KBAs provide valuable data for scientific research, facilitating a better understanding of the distributions of ecosystems, species, and sites of ecological integrity at a national level. The assessments can also inspire more research to assess new sites to determine whether they may meet KBA criteria and thereby catalyse more biodiversity survey work. Feeding the results and outputs into the public sphere has led to educational institutions using the information for environmental education programmes and increased awareness about the importance of biodiversity conservation.

Enhancing climate change mitigation and adaptation

KBAs play a crucial role in climate change mitigation and adaptation. Comprehensive assessments of KBAs help to identify areas that are important for carbon sequestration and that may be resilient to climate change. Where this has been assessed in countries such as Ecuador it has been found that KBAs provide a disproportionate amount of the carbon sequestration for that country. While it is recognised more work is needed on the ecosystem services of KBAs, the results to date indicate they have greater value than other areas. KBAs can therefore inform climate change strategies and contribute to the development of climate-resilient conservation plans.



Ngorongoro Crater, Tanzania © Jorge Tung / Unsplash

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INVESTMENT IN COMPREHENSIVE KBA ASSESSMENTS

The resources needed to make a comprehensive KBA assessment vary between countries but are determined primarily by:

1. The time it takes to build awareness of the need for a KBA assessment and forming a KBA NCG.
2. How centralised the biodiversity data are. If there is a national biodiversity database, the process can be faster and cheaper.
3. The size of the country, how species rich it is, and its level of organisation will affect the time required and the funding needed to make a comprehensive KBA assessment.
4. The state of knowledge of species and ecosystems in a country will determine how difficult the process will be. In some countries where biodiversity data are limited it may be necessary to collect biodiversity data as well as use existing data to make a reasonably comprehensive KBA assessment.
5. The number of biodiversity experts and organizations/institutions that should be engaged in assessing KBAs. To ensure the work is completed relatively quickly it is important to find funding to support these experts so that they can put aside the time to work on the assessments.
6. The level of consultation needed to engage all relevant stakeholders in the process to ensure good support and use of the KBAs identified.

In general, it will take between two to four years to make a comprehensive assessment, depending on the amount of time biodiversity experts can dedicate to the process. In the Global South the costs have ranged between \$250-500,000 US dollars to support the whole process. Elsewhere it can cost more depending on how the work is organised, how many people are engaged but relative to other costs for biodiversity conservation it has been considered a worthwhile investment given the benefits described above. It typically leads to the identification of sites of global significance that have not been recognised previously in existing conservation plans, as well as the strengthening of national networks of biodiversity experts, suggesting that KBA assessments are worth the relatively modest investment.

The KMGBF aims to expand protected and conserved areas to 30% of the planet by 2030, potentially aiming for a larger area by 2050. If we are to put this protection in the right place countries need to invest now in identifying their KBAs and using them to guide spatial planning and protection. While 30% by 2030 efforts can start now with the existing KBA network in a country there is a greater value in making a more robust assessment of KBAs. Comprehensive KBA assessment can only be built by applying multiple criteria and ingesting a broad base of input data (covering many taxa and ecosystems). It requires resources and time to complete but the outputs are powerful and influential and will influence conservation over the long term in a country.



KBA Alto de Ventanas, Colombia © Humboldt Institute

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