Introduction

“The Integrated Biodiversity Assessment Tool (IBAT) has changed the way we think about data platforms in the conservation sector. It is widely acknowledged that authoritative, up-to-date data is key to addressing biodiversity loss. Yet the data is expensive to update and maintain – and this is a huge challenge for our sector.

IBAT not only packages data in the right format for decision-makers but also generates much-needed funds to help update and maintain the world’s most authoritative global biodiversity datasets. IBAT is actively used by 100s of organisations and individuals on a daily basis for early stage, high-level risk screening such as scoping for an EIA and screening against their bank’s environmental safeguards as well as company-level biodiversity information for annual sustainability reports. Added to this, IBAT subscriptions directly support the update and maintenance of the World Database on Protected Areas, the World Database of Key Biodiversity Areas, and the IUCN Red List of Threatened Species. IBAT is, therefore, a unique business model within the conservation sector – giving both value to IBAT users as well as supporting conservation activities.”

Dr Eugenie Regan – IBAT Manager
Background

IBAT is a web-based map and reporting tool that provides fast, easy and integration access to three of the world’s most authoritative global biodiversity datasets:

- IUCN Red List of Threatened Species
- World Database on Protected Areas
- World Database of Key Biodiversity Areas

IBAT is developed and maintained by the IBAT Alliance (IUCN, BirdLife International, UN Environment World Conservation Monitoring Centre, and Conservation International) with the aim to enable users to make informed decisions in policy and practice.

Timeline

- **2005**
  - IBAT conceived by staff within BirdLife International, Conservation International, IUCN, and UNEP-WCMC.

- **2008**
  - Formal launch at IUCN World Conservation Congress.

- **2010**
  - Re-launched with a new business plan & remit of enabling decision-makers to “access integrated critical information to inform risk…”

- **2012**
  - First year that IBAT posted an operating surplus. This was re-invested into the datasets as per our vision.

- **2013**
  - Independent product review undertaken. This guided the next four years of the tool.

- **2017**
  - Staff from across the IBAT Alliance work together to develop the 2018–2023 business plan.

- **2018**
  - Redevelopment of platform
  - New IBAT Manager
  - IBAT Finance & Administration Officer hired
Informing world-shaping decisions

“Our common vision is that decisions affecting critical biodiversity should be informed by the best and most up-to-date scientific information and the decision-makers who use that information should help support its generation and maintenance”

IBAT Alliance Partners
2018 was a big year for IBAT with a new platform & new staff

New platform
We followed the business plan recommendation and invested in redeveloping the IBAT platform. Instead of three separate platforms (IBAT for Business, IBAT for World Bank Group, and IBAT for Research and Conservation), we brought everything under one modern, fit-for-purpose platform built using the latest technology. Thank you to all IBAT staff, users, and stakeholders who worked hard to make our vision a reality. We now have a platform that can serve more decision-makers, on which we can build additional functionalities, and through which we can achieve greater impact.

New staff
At the beginning of 2018, Dr. Eugenie Regan came on board as the new IBAT Manager and, in the middle of the year, we welcomed Nikita Ellis, IBAT’s Finance & Admin Officer, to the IBAT team. We have now doubled the full-time IBAT team allowing us to follow through with a number of the 2018-2023 business plan recommendations.
What is IBAT?

IBAT is an online platform where users can access added value services around the three most authoritative global biodiversity datasets. These include an interactive map, reports, country profiles, data download, and web services.

IBAT reports

IBAT reports package the data into pdfs that provide an overview of biodiversity values for user-specified locations. Current report templates are:

1. Proximity (a simple report showing biodiversity values within a user-specified buffer to a user-specified location).
2. World Bank Group Biodiversity Risk Screen (a report focused specifically on screening a user-specified location against IFC PS6 and WB ESS6).
3. Freshwater (a report that summarises IUCN Red Listed freshwater species upstream and downstream of a user-specified location).

IBAT country profiles

The country profiles summarise the three global datasets for every country in the world and includes information such as overlap of protected areas with Key Biodiversity Areas for that country. Country profiles are used for CBD and SDG reporting as well as by private sectors users looking to understand the country context for a specific project.

Data download and web services

For users looking to pull our data into their own GIS or internal tool, IBAT has a service whereby users can manually, or though an API, download shapefiles. This service is used most often by consultancies to create their own maps overlaid with additional features or by larger companies who have their own internal mapping tool.

How is IBAT run?

IBAT is governed by the IBAT Governance Committee. A representative from each of the IBAT Alliance organisations sits on this Committee. In 2018 these were Melanie Heath (BirdLife International), Corli Pretorius (UNEP-WCMC), Jane Smart (IUCN), and Leo Viana (Conservation International). IBAT is currently run by two full-time staff: Eugenie Regan, the IBAT Manager, and Nikita Ellis, the IBAT Finance & Admin Officer who report to the Governance Committee. IBAT is also supported by two sub-committees, technical and user, who help direct the technical development of IBAT and the user focus, respectively.

“an essential tool for developments to screen for biodiversity risks”

“probably the most important aspect in the beginning stages of any project”

“Thanks to IBAT, we can now make sure that biodiversity is taken into account at the very early stages [of our projects]”
Website visitor location

Website visitors by country

- UK
- USA
- India
- Indonesia
- Canada
- France
- Japan
- Switzerland
- Brazil
- Australia

Website visitors by continent

- Europe: 1,382 visitors, 38%
- Americas: 1,045 visitors, 29%
- Asia: 786 visitors, 21.5%
- Africa: 263 visitors, 7.5%
- Oceania: 107 visitors, 3%

Top ten cities

1. Cambridge (18.5%)
2. London (15.5%)
3. Washington (3%)
4. Jakarta (2.5%)
5. Luxembourg (2%)”
6. Chattanooga (3.5%)
7. Bangkok (15.5%)
8. Paris (7.5%)
9. Gland (2.5%)
10. Madrid (2%)

Views from 163 countries speaking a total of 90 languages.
Reports downloaded

3,431

Total no. of reports downloaded in 2018

1,968
Reports downloaded from IBAT for Business

1,463
Reports downloaded from IBAT for World Bank Group

428
Organisations that downloaded reports

One of IBAT’s most popular functionalities is our biodiversity data report delivered as a package that includes a PDF document, raw data in CSV format, and map files. Our report templates include a simple proximity report, a World Bank Group biodiversity risk report, and a freshwater report.
Paying subscribers

Energy & extractives
- Anglo American
- Barrick
- BHP
- BP
- Chevron
- EDF
- Enel
- Engie
- Eni
- ExxonMobil
- Globeleq Africa
- Hess
- Maplecroft (Wood Mackenzie)
- Newmont
- Petronas
- Repsol
- Rio Tinto
- Shell
- Equinor (pka Statoil)
- South32
- Total
- Tullow Oil
- UPC Renewables
- Woodside

Finance
- ADB
- Allianz
- BNP Paribas
- Bpifrance
- Credit Suisse
- Danish Export Fund
- EIB
- Finance In Motion
- FMO
- IADB
- IBRD
- IFC
- ING
- JPMorgan
- KfW
- PWC German Export Credit Agency
- MIGA
- SACE
- Societe Generale
- Standard Chartered
- Swedish Export Credit Agency
- UK Export Finance
- World Bank

Other
- Aditya Birla Group
- Alcoa
- General Motors
- Heidelberg Cement
- InterRisk
- Mitsubishi
- TomTom
- Toyota
- Evonik
- Knight Piesold

PAYG
- Alpage
- ERM
- Mott MacDonald
- PT ESC
- TBC
- Tripos
- WSP
- WSP
The Biodiversity Consultancy

"We view IBAT as an essential tool for developments to screen for biodiversity risks."  
Senior Principal Consultant, Dr Edward Pollard.

Founded in 2006, The Biodiversity Consultancy (TBC) has become a key player in the world of business and biodiversity. They work globally across sectors towards an ecologically sustainable future by tackling complex biodiversity challenges and delivering positive outcomes for business and nature. TBC's clients include Shell, Rio Tinto, Olam, UNDP, IUCN, World Bank and IFC. High quality biodiversity data is an essential aspect of TBC's work and IBAT is used by TBC for high-level and early stage risk screening for their clients. TBC use the new Pay As You Go functionality to access biodiversity data on behalf of their clients.

Cambridge Institute for Sustainability Leadership

This is the first metric of its kind that allows users to both determine how they impact the natural world and how they rely upon it, year on year and resource by resource. By identifying practical opportunities for reducing impact through operational decision-making, the Metric is a key tool both for meeting internal green targets, as well as working towards the Sustainable Development Goals.

The Cambridge Institute for Sustainability Leadership (CISL) uses IBAT as a core part of their unique environmental impact tool, the Healthy Ecosystem Metric. Developed in partnership with the Natural Impact Group, leading NGOs and academics, the Metric allows users to evaluate impacts on the environment in a consistent, quantifiable way.

General Motors

"I use IBAT to look for key biodiversity areas, alliance for zero extinction areas and IUCN [Red List of Threatened Species] areas within 1 km and 10 km of our manufacturing sites. I use IBAT as a research tool to pull information to look where we can improve the environment around us and to be aware of where there may be issues near us."

Susan Kelsey, Global Biodiversity Programme Manager at General Motors explains how IBAT is helping GM achieve their goals.

General Motors (GM) are internationally renowned for their innovation and sustainability leadership, and use IBAT as a tool in their environmental goals.

Their corporate sustainability leadership ensures they are included on The Dow Jones Sustainability Indices and the organisation has a 20 year strong record of improving energy efficiency in offices and factories around the world.

Rio Tinto

Rio Tinto is the third largest mining company in the world, operating in 35 countries with four mining product groups: Aluminium, Copper & Diamonds, Energy & Minerals and Iron Ore. Despite the size and breadth of their operations, Rio Tinto are mindful of their impact on biodiversity and operate using mitigation hierarchy in the planning stages of projects.

"It’s [IBAT] probably the most important aspect in the beginning stages of any project” explains Dr Theresia Ott, Principal Advisor: Group Environment at Rio Tinto Group Environment. IBAT also plays a key role in Rio Tinto’s ability to devise effective biodiversity management plans for new and current sites: “In terms of risk analysis, for a mining company, or any extractive for that matter, it’s a really powerful tool for us to be able to use and understand when we’re going into new areas and when we want to expand in areas where we currently are operating.”
User stories

U.S. Army

The U.S. Army’s contingency bases allow for a rapid response in a joint area of operations. However, they inevitably have an impact on the surrounding built, natural and social environments. It is therefore critical that the Army’s contractors, the Engineering Site Identification for the Tactical Environment (ENSITE), have a way to integrate and visualise environmental data to avoid knock-on effects or logistical burdens.

Military planners have now incorporated the World Database on Protected Areas (WDPA), one of the main datasets within IBAT, as a core component of their ENSITE hub software. Planners can now explore how potential contingency bases might affect the natural environment and early stage decisions to avoid potential impacts.

The Rainforest Trust

The Rainforest Trust relies on IBAT as a central repository of information to support our mission to purchase and protect the world’s most threatened tropical rainforests. The spatial data that IBAT makes available is the foundation of our decision-making as an organization.

For example, we use the IUCN range map data provided by IBAT to calculate “irreplaceability” metrics. These metrics are a critical component of our process to evaluate the potential impact of projects proposed by our conservation partners. In combination with the WDPA and KBA datasets that IBAT provides, these metrics also help us proactively identify areas in the tropics that will likely benefit threatened species and are currently unprotected.
Bringing data to life

Described by our users as “a must for any project on biodiversity conservation”, IBAT offers a ‘one-stop shop’ data search service for those seeking authoritative global biodiversity information. IBAT subscriptions, in turn, help update and maintain these datasets.

IUCN Red List of Threatened Species

World Database on Protected Areas

World Database of Key Biodiversity Areas

White Trevally Least Concern
Pseudocaranx denticulus
IUCN Red List of Threatened Species
The World Database on Protected Areas is the most comprehensive global database on protected areas, and is updated on a monthly basis.

It is a joint product between the UN Environment and IUCN and is managed by the Conserved Lands and Seascapes Programme at UNEP-WCMC. The team works on a continuous basis with representatives from governments, communities and collaborative partners, as well as international bureaux and secretariats. It aims to be the most authoritative global platform providing the world's decision makers and the community of practitioners with the best possible and global information, knowledge and tools, for the planning and management of protected and conserved areas.

The funding provided by the IBAT Alliance in 2017 and 2018, alongside contributions from other sources, has supported the update and improvement of country protected area data and information, and the development of guidance materials to support the delivery of technical and capacity building workshops to strengthen the countries’ ability to manage and maintain their own national protected area datasets.

In 2017, IBAT income supported the update and improvement of country protected area data. This included the update and validation of over 236,000 protected area records in over 110 countries and territories. As of October 2018, over 38,000 records have been updated and/or validated in over 70 countries and territories. Important highlights include the addition of Somalia's protected area network in the WDPA and an update of the Chinese protected area network, the first updates of these areas in over 15 years.

Spatial distribution of the world's protected areas
The World Database of Key Biodiversity Areas (WDKBA) compiles the data on all sites of significance for the global persistence of biodiversity.

It is managed by BirdLife International on behalf of the KBA Partnership, a consortium of 13 of the world’s leading conservation organisations who are identifying, mapping and promoting the conservation of the most important places on the planet for biodiversity. Sites are identified at national level and the criteria used to identify them focus on five aspects of conservation value:

1. Threatened species/ecosystems
2. Species/ecosystems with restricted ranges
3. Intact sites with minimal human impact
4. Biological processes such as congregations of species
5. Sites of high irreplaceability

The funding provided by the IBAT Alliance in 2018, alongside contributions from other sources, has supported the ongoing management and development of the WDKBA, and the update of the KBA dataset, particularly the incorporation of sites identified by the Alliance for Zero Extinction (AZE). KBAs that hold effectively the entire global population of at least one Critically Endangered or Endangered species. In 2018, 1,158 new sites were added to the database including 241 AZE sites and 733 sites identified in biodiversity hotspots through profiles supported by the Critical Ecosystem Partnership Fund. While more than 13,000 sites in the WDKBA are triggered by bird species because of the 40 years of BirdLife International’s Important Bird and Biodiversity Programme (IBA), in 2018 we have now reached the point where more non-bird than bird species trigger KBA status (52%).

In 2018, the International Finance Corporation revised its Performance Standard 6 guidelines, which now advise that KBAs are likely to qualify as ‘critical habitat’, as do ongoing revisions of the Equator Principles. The percentage of KBAs covered by protected areas continued to be used as an indicator of progress towards achieving the United Nations Sustainable Development Goals 14 and 15, as well as for assessing progress towards the ‘Aichi Targets’ in the Strategic Plan on Biodiversity, adopted through the Convention on Biological Diversity. Currently, an average of 45.6% of each KBA is covered by protected areas. However, only 19.9% of KBAs are completely covered by protected areas, 45.1% have partial coverage and 35% lack any coverage by protected areas.
IUCN Red List of Threatened Species

The IUCN Red List of Threatened Species™ is the world’s most comprehensive information source on the global conservation status of animal, fungi and plant species and their links to human livelihoods.

It is a powerful tool to inform and catalyse action for biodiversity conservation through policy change and action on the ground.

The IUCN Red List evaluates the extinction risk of thousands of species, using nine categories; Critically Endangered (CR), Endangered (EN) and Vulnerable (VU) species are considered to be threatened with extinction.

Data from the IUCN Red List is of international importance and is used to track progress towards UN Sustainable Development Goal 15–Life on Land. It is anticipated the implementation of a new post-2020 international framework for saving nature will hinge on the availability and performance of the IUCN Red List.

Resources generated by IBAT are provided to the IUCN Red List Partnership (www.iucnredlist.org/about/partners) to support three key areas. We are expanding the IUCN Red List to make it more representative of life on earth by assessing species of invertebrates and plants. We also aim to review regularly the assessment of species already on the IUCN Red List so that changes in the status and taxonomy of species are incorporated. For example, in 2018 we added 5,527 new entries to the IUCN Red List (mostly invertebrates and plants) and conducted re-assessments of 3,207 species.

The IUCN Red List is a complex database of information and IBAT-generated funds are used to support the development and maintenance of key technological features to the website and back-end databases. IBAT therefore helps us to keep the IUCN Red List up to date, to make it more inclusive and ensure it is underpinned by appropriate technologies.

More than 27,000 species are threatened with extinction

That is more than 27% of all assessed species.

<table>
<thead>
<tr>
<th>Classification</th>
<th>Percentage</th>
<th>Icon</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amphibians</td>
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<tr>
<td>Mammals</td>
<td>25%</td>
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</tr>
<tr>
<td>Conifers</td>
<td>34%</td>
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<tr>
<td>Birds</td>
<td>14%</td>
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<tr>
<td>Sharks &amp; Rays</td>
<td>31%</td>
<td><img src="animal.png" alt="Shark" /></td>
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<tr>
<td>Reef Corals</td>
<td>33%</td>
<td><img src="plant.png" alt="Reef Coral" /></td>
</tr>
<tr>
<td>Selected Crustaceans</td>
<td>27%</td>
<td><img src="animal.png" alt="Crustacean" /></td>
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</table>
IBAT subscriptions directly support the update and maintenance of three of the world’s most authoritative global datasets: the World Database on Protected Areas, the World Database of Key Biodiversity Areas, and the IUCN Red List of Threatened Species.

The annual cost of updating and maintaining these datasets is estimated at US$6.5 million. An additional US$114 million will be needed to reach baselines of data coverage for global biodiversity and conservation knowledge products.

**2018 Financial Report**

<table>
<thead>
<tr>
<th>2018 Expenditure</th>
<th>Amount (USD)</th>
</tr>
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<tbody>
<tr>
<td>Support to datasets</td>
<td>28%</td>
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<tr>
<td>Web presence</td>
<td>30%</td>
</tr>
<tr>
<td>Communications and audience engagement</td>
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<tr>
<td>Miscellaneous</td>
<td>0.6%</td>
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<tr>
<td>Governance, management &amp; coordination</td>
<td>32%</td>
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**2018 Subscription Income**

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<tr>
<td>TOTAL</td>
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**2018 Expenses**

<table>
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<tr>
<th>Expense Category</th>
<th>Amount (USD)</th>
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<tr>
<td>Support to management, maintenance and interpretation of core IBAT data sets</td>
<td>290,007</td>
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<td>Web presence (maintenance of IBAT 2.0 and redevelopment of the new IBAT 3.0 platform)</td>
<td>380,591</td>
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<tr>
<td>Governance, management and coordination (IBAT staff, support to IBAT from Alliance, travel)</td>
<td>332,721</td>
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<td>Communications and audience engagement</td>
<td>29,224</td>
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<td>Miscellaneous (office equipment, legal, other)</td>
<td>6,285</td>
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<tr>
<td>TOTAL</td>
<td>1,038,827</td>
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</table>
What next?

The IPBES Global Assessment presented overwhelming evidence that the health of ecosystems is rapidly deteriorating. The biomass of wild mammals has fallen by 82%, natural ecosystems have lost about half their area, and a million species are at risk of extinction. How we act on this information is crucial.

Described by our users as “a must for any project on biodiversity conservation”, IBAT provides authoritative, actionable information about global biodiversity. The tool is currently used by 100s of decision-makers on a daily basis but we can do more. Over the next couple of years we will continue to improve the platform and offer more functionalities to serve more decision-makers. We will also improve our support to users including video tutorials, webinars, and networking opportunities. On the operations side, we will work to run IBAT as efficiently as possible so that we can channel as much of the IBAT subscriptions as possible into investing in the update and maintenance of key global biodiversity datasets.

The global biodiversity crisis will need huge efforts from everybody to reverse the current decline. IBAT plays a crucial role in making that difference.