



# Integrated Biodiversity Assessment Tool






Big Data and AI for Sustainable Investing - from Biodiversity Risks to Sustainable Gold  
Wednesday, November 2nd, 2022

Biodiversity - Impacts and Deforestation when searching for Sustainable Gold

Northern Long-eared Owl  
*Asio otus*  
Least Concern



# What is the Integrated Biodiversity Assessment Tool?

- A web-based map and reporting tool that provides fast, easy and integrated access to critical biodiversity information
- An alliance between:
  -  BirdLife INTERNATIONAL
  -  CONSERVATION INTERNATIONAL
  -  IUCN
  -  UN environment programme
  -  WCMC
- The source of the most globally authoritative biodiversity data:
  - The World Database on Protected Areas
  - The World Database of Key Biodiversity Areas
  - The IUCN Red List of Threatened Species
- An increasingly important interface between the private sector and biodiversity conservation



Scarlet Macaw  
*Ara macao*  
Least concern





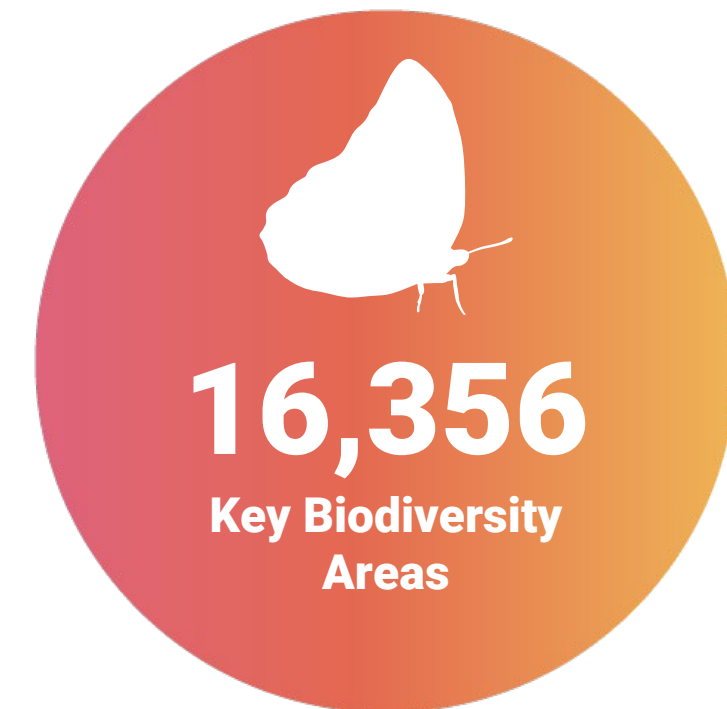
The World Database on  
Protected Areas

Updated monthly



The IUCN Red List of  
Threatened Species

Updated ~3 times a year



The World Database of  
Key Biodiversity Areas

Updated ~3 times a year

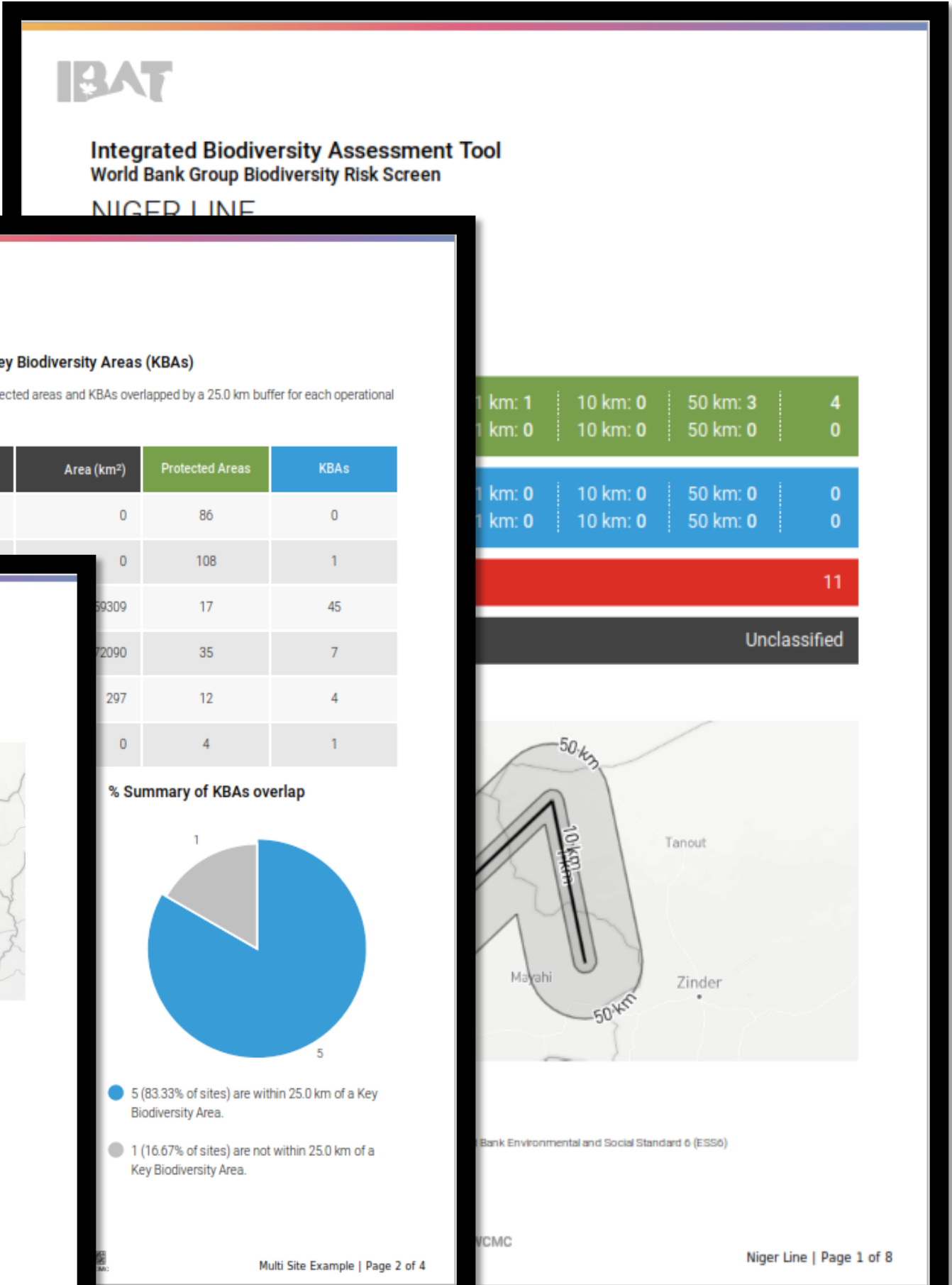
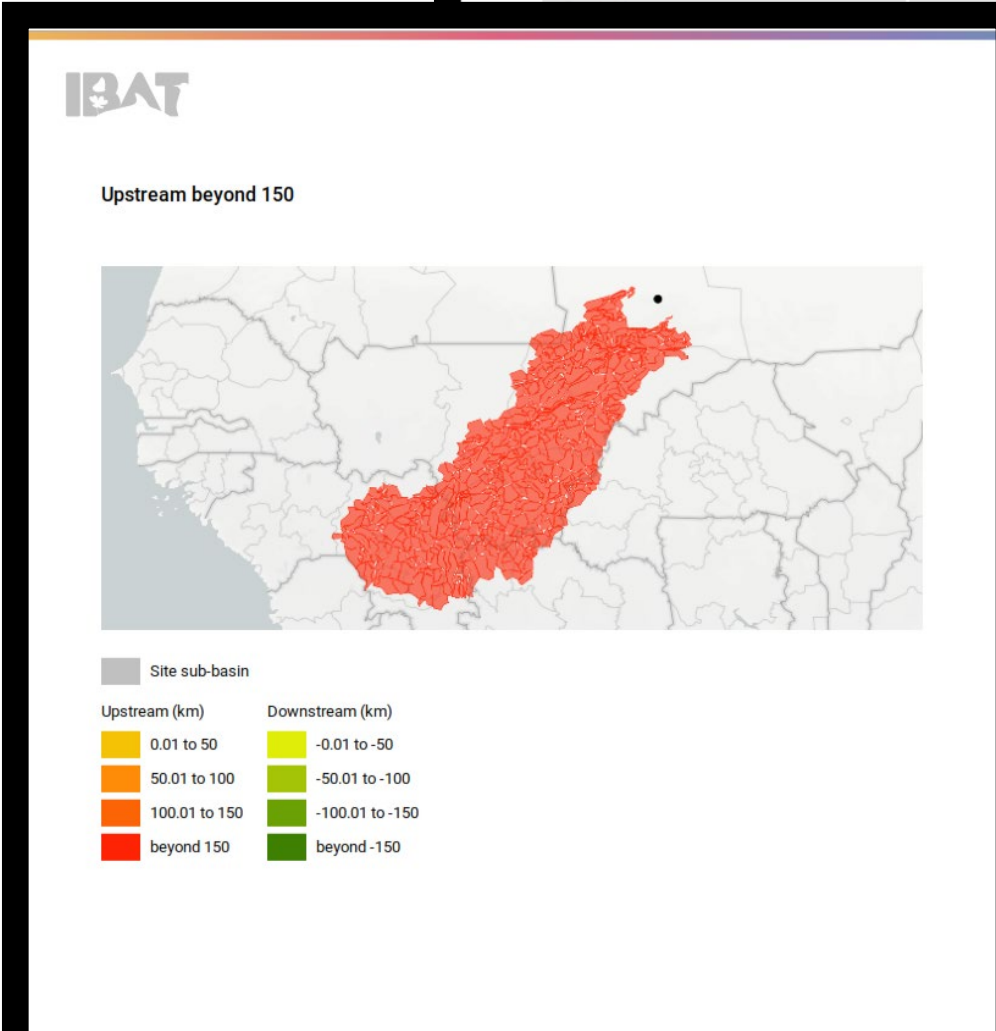


# IBAT Risk Screening Reports



- Proximity analyses
- Critical Habitat identification
- Freshwater reporting
- Multi-site comparisons

<https://www.ibat-alliance.org/sample-downloads>




# IBAT Performance Standard 6 Report

IBAT PS6 / ESS6 Report focusses on Critical Habitat

Report highlights presence of:

- *CR/EN species*
- *Restricted range and congregatory (migratory) species*
- *Sensitive protected areas – UNESCO World Heritage, IUCN Management Categories Ia, Ib and II.*
- *Sensitive KBAs – Alliance for Zero Extinction sites*



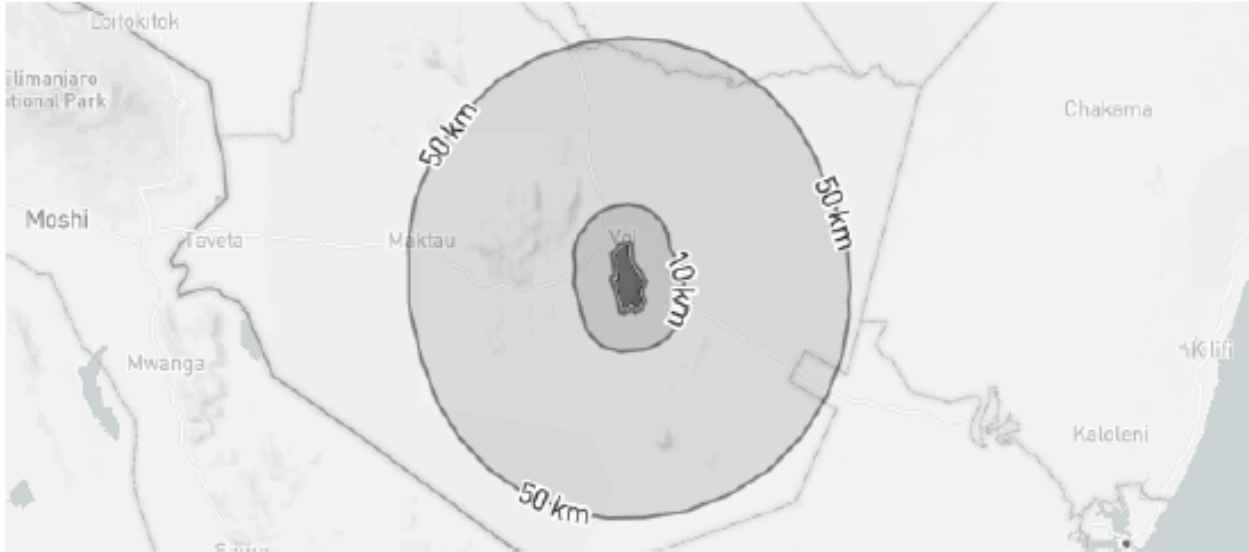
Integrated Biodiversity Assessment Tool  
World Bank Group Biodiversity Risk Screen

## SAGALA HILLS


- Country: Kenya
- Location: [ -3.5, 38.6 ]
- IUCN Red List Biomes: Freshwater, Terrestrial
- Created by: Ben Jobson

Overlaps with:


Protected Areas	1 km: 0	10 km: 1	50 km: 7	8
World Heritage (WH)	1 km: 0	10 km: 0	50 km: 0	0
Key Biodiversity Areas	1 km: 0	10 km: 1	50 km: 3	4
Alliance for Zero Extinction (AZE)	1 km: 0	10 km: 0	50 km: 1	1
IUCN Red List	48			
Critical Habitat	Likely			





Displaying project location and buffers: 1 km, 10 km, 50 km


 WORLD BANK GROUP


This report is based on IFC Performance Standard 6 (PS6) but applies to World Bank Environmental and Social Standard 6 (ESS6)

 KNOW YOUR ENVIRONMENT


 BirdLife International

 IUCN

 CONSERVATION INTERNATIONAL

 UN WCMC

Sagala Hills | Page 1 of 14



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# IBAT Multi-site Report

- IBAT Multi-site reports designed to help companies reporting for GRI/ SASB, and certification schemes
- Now including Total and Mean STAR Values per project

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	site_name	parent_isi_name	orig_name		marine	desig	iucn_cat	wdpaid	desig_eng	desig_typ	int_crit	status	status_yr	gov_type
2	Bicester	GBR	Syresham	Syresham Marshy Meadows	terrestrial	Site Of Special Scientific Interest (Uk)	IV	140363	Site Of Sp	National	Not Applii	Designate	1985	Federal or national ministry or agency
3	Bicester	GBR	Cassington	Cassington Meadows	terrestrial	Site Of Special Scientific Interest (Uk)	IV	141031	Site Of Sp	National	Not Applii	Designate	1993	Federal or national ministry or agency
4	Bicester	GBR	Magdalen	Magdalen Grove	terrestrial	Site Of Special Scientific Interest (Uk)	IV	140859	Site Of Sp	National	Not Applii	Designate	1991	Federal or national ministry or agency
5	Bicester	GBR	Helmdon	Helmdon Disused Railway	terrestrial	Site Of Special Scientific Interest (Uk)	IV	140882	Site Of Sp	National	Not Applii	Designate	1990	Federal or national ministry or agency
6	Bicester	GBR	Salt Way	Salt Way, Ditchley	terrestrial	Site Of Special Scientific Interest (Uk)	IV	137076	Site Of Sp	National	Not Applii	Designate	1988	Federal or national ministry or agency
7	Bicester	GBR	Wytham V	Wytham Woods	terrestrial	Site Of Special Scientific Interest (Uk)	IV	137175	Site Of Sp	National	Not Applii	Designate	1986	Federal or national ministry or agency
8	Bicester	GBR	Out Wood	Out Wood	terrestrial	Site Of Special Scientific Interest (Uk)	IV	138402	Site Of Sp	National	Not Applii	Designate	1986	Federal or national ministry or agency
9	Bicester	GBR	Arnco	Arnco Bridge Meadows	terrestrial	Site Of Special Scientific Interest (Uk)	IV	136887	Site Of Sp	National	Not Applii	Designate	1992	Federal or national ministry or agency
10	Bicester	GBR	Sidling'S C	Sidling'S Copse And College Pond	terrestrial	Site Of Special Scientific Interest (Uk)	IV	136498	Site Of Sp	National	Not Applii	Designate	1986	Federal or national ministry or agency
11	Bicester	GBR	Ardley Tra	Ardley Trackways	terrestrial	Site Of Special Scientific Interest (Uk)	IV	5.56E+08	Site Of Sp	National	Not Applii	Designate	2010	Federal or national ministry or agency
12	Bicester	GBR	Lobbingto	Lobbington Hall Farm Meadow	terrestrial	Site Of Special Scientific Interest (Uk)	IV	169954	Site Of Sp	National	Not Applii	Designate	1998	Federal or national ministry or agency
13	Bicester	GBR	Ducklingt	Ducklington Mead	terrestrial	Site Of Special Scientific Interest (Uk)	IV	137561	Site Of Sp	National	Not Applii	Designate	1986	Federal or national ministry or agency
14	Bicester	GBR	Magdalen	Magdalen Quarry	terrestrial	Local Nature Reserve	IV	93132	Local Natu	National	Not Applii	Designate	1988	Federal or national ministry or agency
15	Bicester	GBR	Crecy Hill	Crecy Hill (Managed By Tackley Paris	terrestrial	Local Nature Reserve	IV	193948	Local Natu	National	Not Applii	Designate	1997	Federal or national ministry or agency
16	Bicester	GBR	Wytham C	Wytham Ditches And Flushes	terrestrial	Site Of Special Scientific Interest (Uk)	IV	140233	Site Of Sp	National	Not Applii	Designate	1986	Federal or national ministry or agency
17	Bicester	GBR	Buckingha	Buckingham Sand Pit	terrestrial	Local Nature Reserve	IV	194391	Local Natu	National	Not Applii	Designate	2001	Federal or national ministry or agency
18	Bicester	GBR	Muswell H	Muswell Hill	terrestrial	Site Of Special Scientific Interest (Uk)	IV	140941	Site Of Sp	National	Not Applii	Designate	1992	Federal or national ministry or agency
19	Bicester	GBR	Upper Che	Upper Cherwell At Trafford House	terrestrial	Site Of Special Scientific Interest (Uk)	IV	140825	Site Of Sp	National	Not Applii	Designate	1992	Federal or national ministry or agency
20	Bicester	GBR	Stonesfiel	Stonesfield Slate Mines	terrestrial	Site Of Special Scientific Interest (Uk)	IV	136522	Site Of Sp	National	Not Applii	Designate	1986	Federal or national ministry or agency
21	Bicester	GBR	Long Han	Long Hanborough Gravel Pit	terrestrial	Site Of Special Scientific Interest (Uk)	IV	138294	Site Of Sp	National	Not Applii	Designate	1986	Federal or national ministry or agency
22	Bicester	GBR	Middle Ba	Middle Barton Fen	terrestrial	Site Of Special Scientific Interest (Uk)	IV	140730	Site Of Sp	National	Not Applii	Designate	1990	Federal or national ministry or agency
23	Bicester	GBR	Otmoor	Otmoor	terrestrial	Nature Reserve	IV	5.56E+08	Nature Re	National	Not Applii	Designate	1997	Joint governance
24	Bicester	GBR	Horsehay	Horsehay Quarries	terrestrial	Site Of Special Scientific Interest (Uk)	IV	138138	Site Of Sp	National	Not Applii	Designate	1987	Federal or national ministry or agency
25	Bicester	GBR	New Mars	New Marston Meadows	terrestrial	Site Of Special Scientific Interest (Uk)	IV	141017	Site Of Sp	National	Not Applii	Designate	1993	Federal or national ministry or agency
26	Bicester	GBR	Wendlebu	Wendlebury Meads And Mansmoor	terrestrial	Site Of Special Scientific Interest (Uk)	IV	137061	Site Of Sp	National	Not Applii	Designate	1987	Federal or national ministry or agency
27	Bicester	GBR	Woodeat	Woodeaton Quarry	terrestrial	Site Of Special Scientific Interest (Uk)	IV	137119	Site Of Sp	National	Not Applii	Designate	1986	Federal or national ministry or agency
28	Bicester	GBR	Kirtlingto	Kirtlington Quarry	terrestrial	Site Of Special Scientific Interest (Uk)	IV	138184	Site Of Sp	National	Not Applii	Designate	1986	Federal or national ministry or agency
29	Bicester	GBR	Holly Coui	Holly Court Bank	terrestrial	Site Of Special Scientific Interest (Uk)	IV	139976	Site Of Sp	National	Not Applii	Designate	1986	Federal or national ministry or agency
30	Bicester	GBR	Farnborou	Farnborough Hall	terrestrial	Nature Reserve	V	5.56E+08	Nature Re	National	Not Applii	Designate	1960	Non-profit organisations
31	Bicester	GBR	Stanton G	Stanton Great Wood	terrestrial	Site Of Special Scientific Interest (Uk)	IV	137255	Site Of Sp	National	Not Applii	Designate	1987	Federal or national ministry or agency
32	Bicester	GBR	Tingewick	Tingewick Meadows	terrestrial	Site Of Special Scientific Interest (Uk)	IV	137921	Site Of Sp	National	Not Applii	Designate	1984	Federal or national ministry or agency
33	Bicester	GBR	Boarstall	Boarstall Duck Decoy	terrestrial	Nature Reserve	V	5.56E+08	Nature Re	National	Not Applii	Designate	1980	Non-profit organisations
34	Bicester	GBR	Sarsgrove	Sarsgrove Wood	terrestrial	Site Of Special Scientific Interest (Uk)	IV	138228	Site Of Sp	National	Not Applii	Designate	1985	Federal or national ministry or agency
35	Bicester	GBR	Ardley Cui	Ardley Cutting And Quarry	terrestrial	Site Of Special Scientific Interest (Uk)	IV	136881	Site Of Sp	National	Not Applii	Designate	1988	Federal or national ministry or agency
36	Bicester	GBR	Shabbingt	Shabbington Woods Complex	terrestrial	Site Of Special Scientific Interest (Uk)	IV	136268	Site Of Sp	National	Not Applii	Designate	1987	Federal or national ministry or agency
37	Bicester	GBR	Adderbur	Adderbury Lakes	terrestrial	Local Nature Reserve	IV	5.56E+08	Local Natu	National	Not Applii	Designate	2012	Federal or national ministry or agency
38	Bicester	GBR	Sturt Cops	Sturt Copse	terrestrial	Site Of Special Scientific Interest (Uk)	IV	136537	Site Of Sp	National	Not Applii	Designate	1987	Federal or national ministry or agency
39	Bicester	GBR	Stonesfiel	Stonesfield Common, Bottoms & Ba	terrestrial	Site Of Special Scientific Interest (Uk)	IV	136506	Site Of Sp	National	Not Applii	Designate	1989	Federal or national ministry or agency
40	Bicester	GBR	Pixey And	Pixey And Yarnton Meads	terrestrial	Site Of Special Scientific Interest (Uk)	IV	136320	Site Of Sp	National	Not Applii	Designate	1986	Federal or national ministry or agency

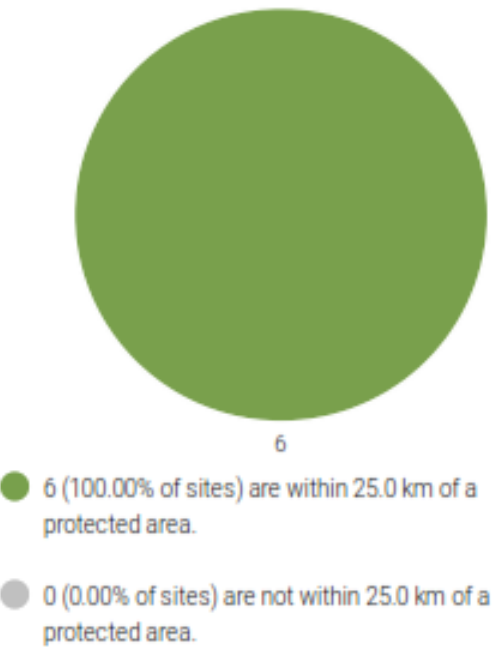


## Overlap with protected areas and Key Biodiversity Areas (KBAs)

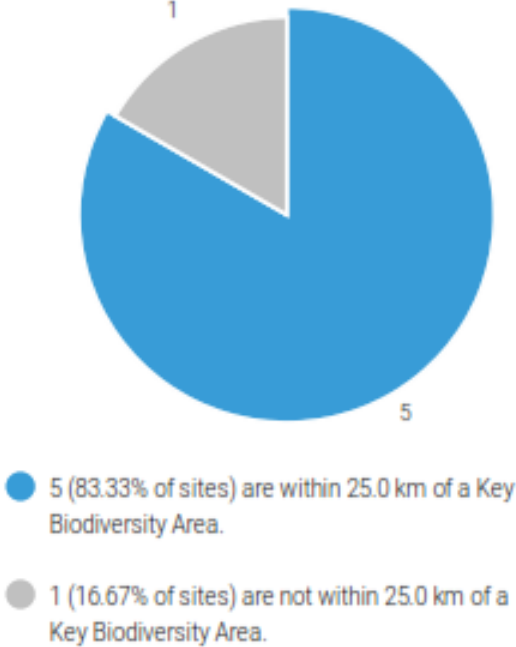
The following table shows the number of protected areas and KBAs overlapped by a 25.0 km buffer for each operational site where an overlap occurs.

Site	Area (km²)	Protected Areas	KBAs
Bicester	0	86	0
Cambridge	0	108	1
Madagascar	159309	17	45
Mozambique	72090	35	7
San Cristobal	297	12	4
South Luangwa	0	4	1

### % Summary of protected areas overlap



### % Summary of KBAs overlap





## Responsible Gold Mining Principles

**Biodiversity 9.1** We will implement biodiversity management plans. At a minimum, we will seek to ensure that there is no net loss of **critical habitat**. Where opportunities arise to do so, we will work with others to produce a net gain for biodiversity. We will incorporate both scientific and traditional knowledge in designing adaptation strategies in ecosystem management and environmental assessment.

**World Heritage Sites 9.2:** We will not explore or seek to develop new mining operations in an area designated as a **World Heritage Site**.







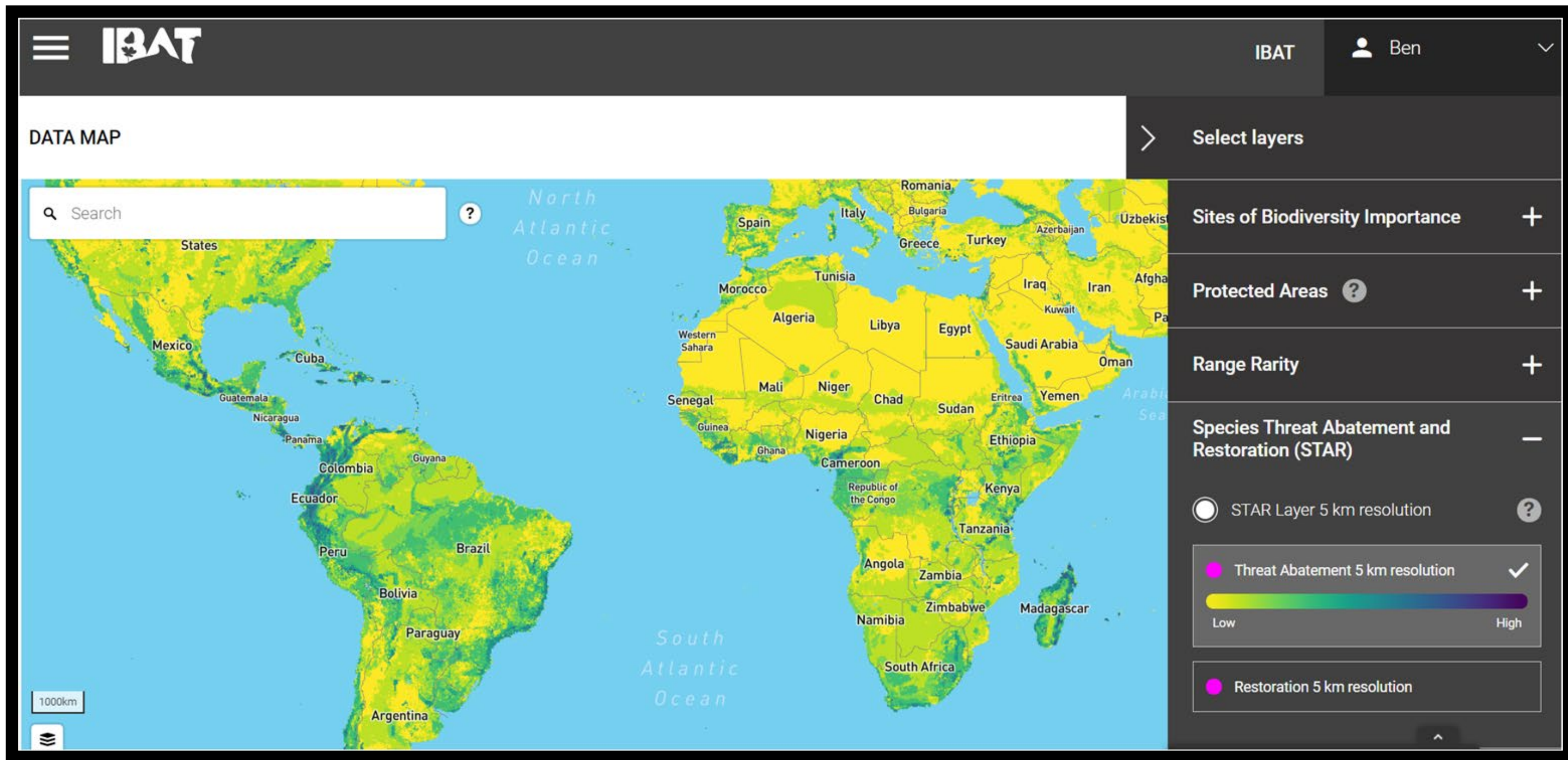
Through IBAT, ICMM Members can access the World Database on Protected Areas, which currently contains 271,131 protected areas including 250 World Heritage Sites (WHS), 2,352 Ramsar Wetlands of International Importance, and 544 UNESCO Man and the Biosphere Reserves (MAB).

7.1 – Avoid **World Heritage Sites** and Respect Legally Designated **Protected Areas**

7.2 – Apply **Mitigation Hierarchy** with Ambition of No-Net-Loss







Species Threat Abatement and Restoration (STAR Metric)



# What is STAR?

STAR is a **biodiversity metric** based on The IUCN Red List of Threatened Species.

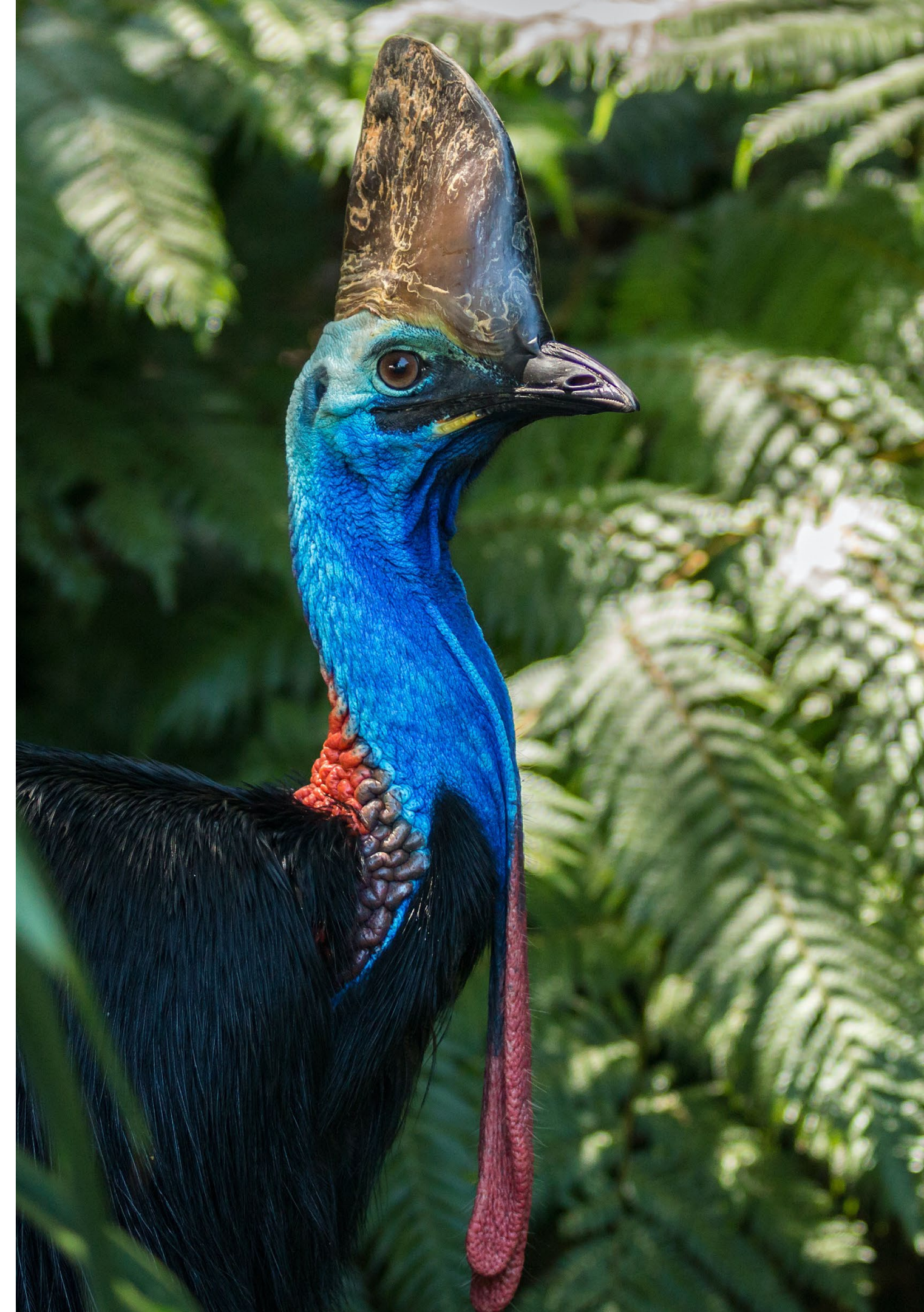
- Identifies the potential to reduce species extinction risk

**The STAR methodology has been applied to produce two complementary global data layers:**

**1. Threat abatement (STAR<sub>T</sub>)** – actions to address threats.

**2. Restoration (STAR<sub>R</sub>)** – actions to restore species habitat.

- STAR is completely scaleable.
- It enables quantitative comparison between sites.
- The STAR global layers are currently based on threatened and near-threatened terrestrial mammals, birds and amphibians.



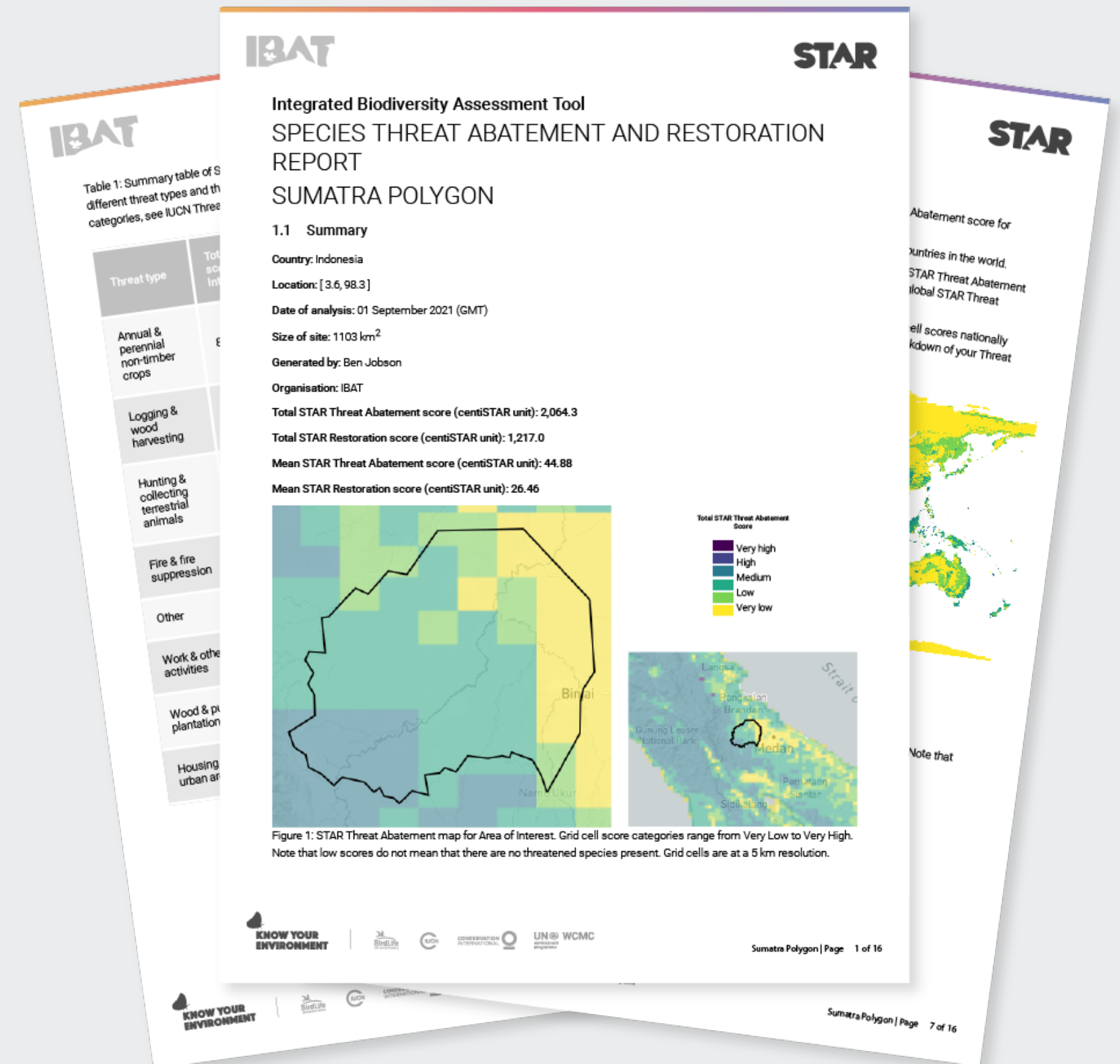


# STAR Report

Define your Area of Interest (project site)

IBAT generates bespoke STAR report for your chosen location

Report provides a detailed breakdown of the STAR values, threats and their relative significance at national and global scales



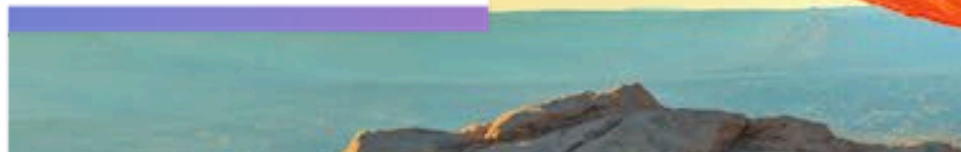
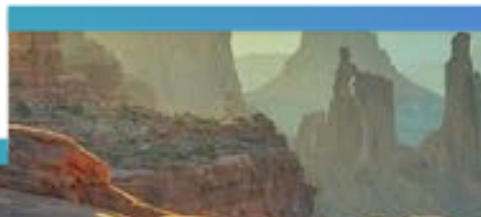


# How mining companies use IBAT to avoid environmental impacts




1. Access up-to-date, standardised and authoritative biodiversity data
2. Generate an understanding of your exposure to biodiversity risk and opportunities for nature positive biodiversity contributions aligned with corporate or global targets.
3. Download project-level/global geospatial data for internal GIS platforms or query via APIs
4. To prospect new sites or merger & acquisition risk
5. Corporate biodiversity assessment and disclosure
6. Inform application of the mitigation hierarchy
7. Inform corporate biodiversity strategies and targets in line with best practice of the world's leading mining organisations (in terms of size and ESG credentials).
8. To support reassessment of sites for expansion applications

In a dynamic world with rapidly changing ecosystems and protected area networks, IBAT can offer consistency to help organizations manage risk



Arches National Park  
World Database on Protected Areas



 RepRisk

Approach

Solutions

Clients

News & research

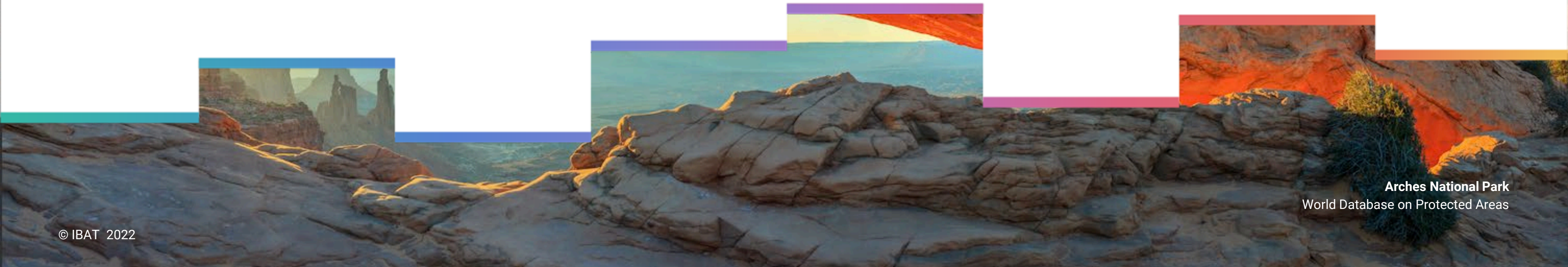
About

Platform login ↗

[Request a demo](#)

Geospatial Analytics shows extractive sector projects with **immediate, close, or general** proximity to environmentally sensitive sites.

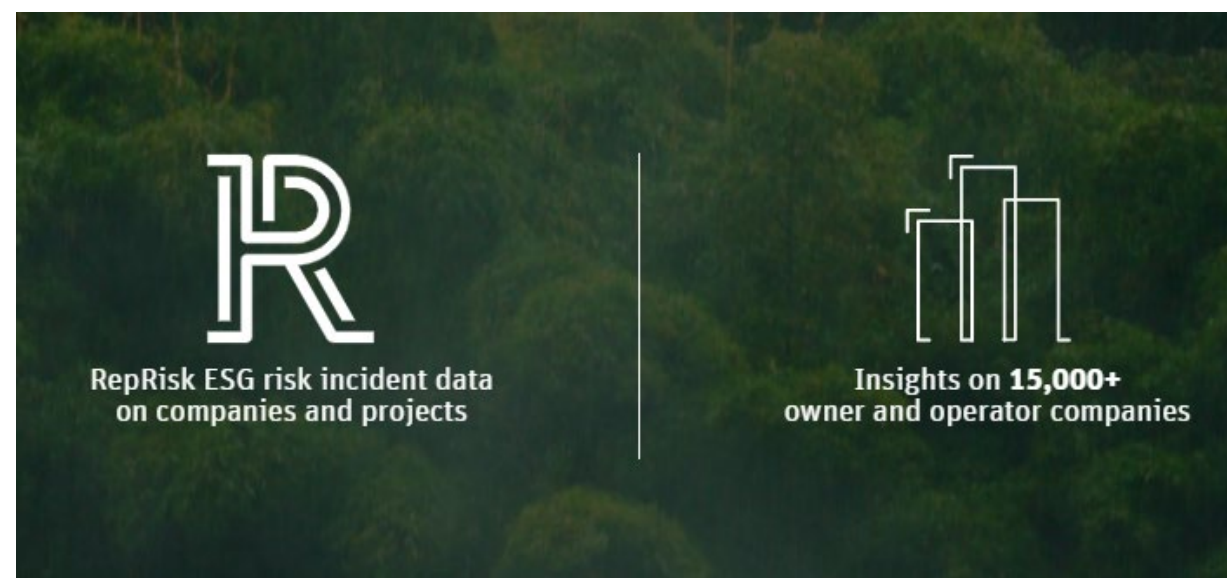
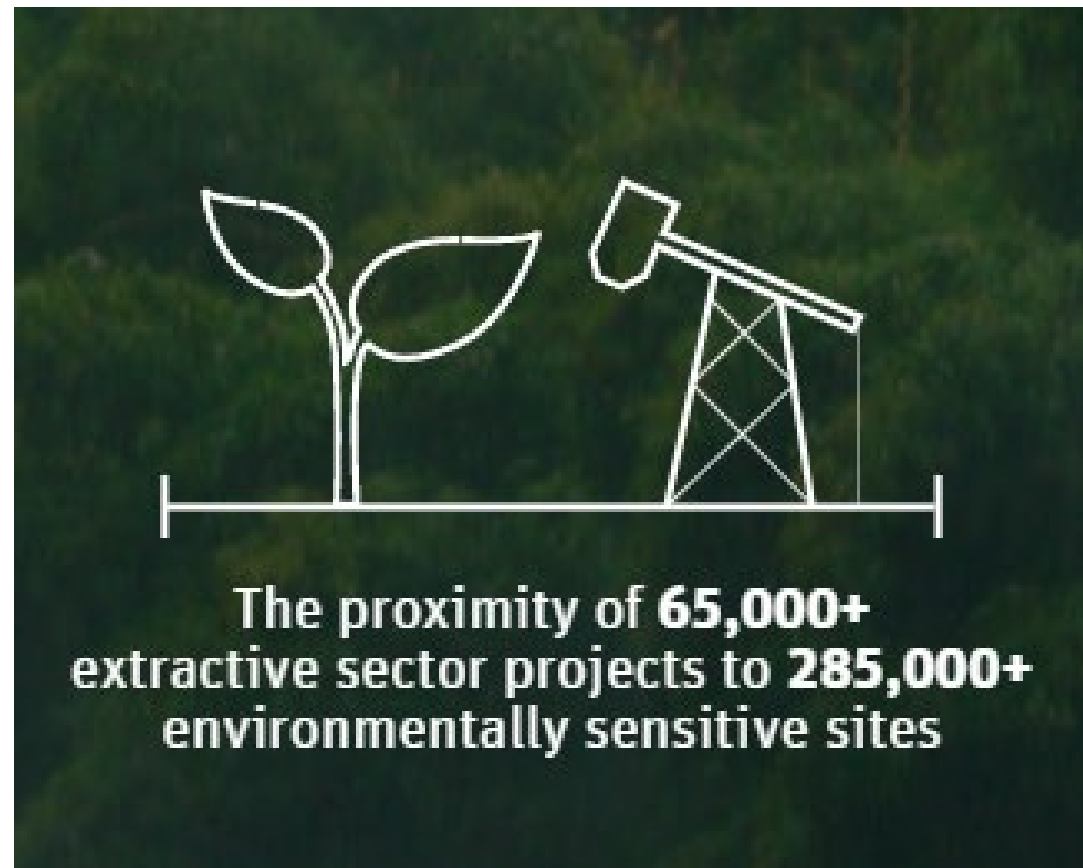
Data captured by Geospatial Analytics reveals that **18% of mining projects are in immediate proximity of environmentally sensitive sites**



Arches National Park  
World Database on Protected Areas



# Insights through RepRisk







# To get in touch

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