

BIODIVERSITY INDICATORS FOR EXTRACTIVES

With the support of IPIECA, the global oil and gas association for environmental and social issues, and the Proteus Partnership, UN Environment World Conservation Monitoring Centre (UNEP-WCMC), Conservation International and Fauna & Flora International are collaborating to develop and test a methodology for creating scientifically credible, corporate biodiversity indicators tailored to the needs of the extractives sector.

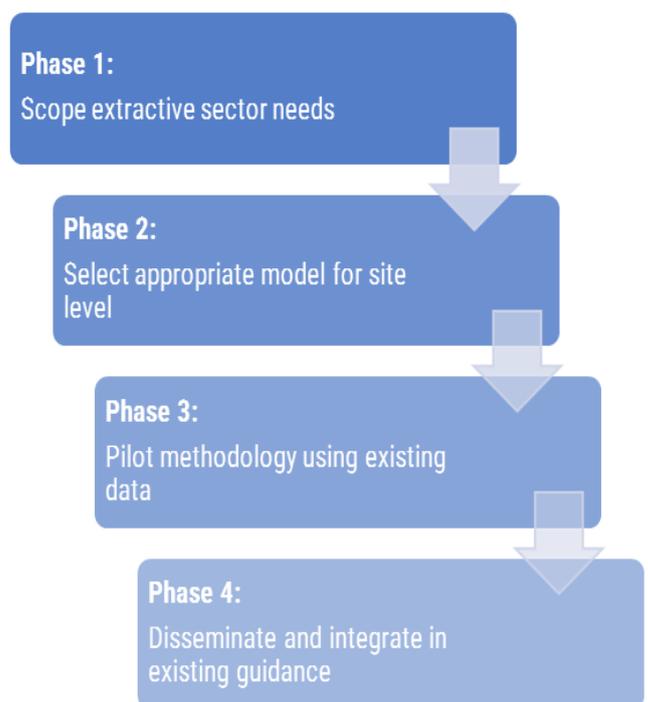
BACKGROUND

The potential impacts of extractive operations on biodiversity are well documented, as is demonstrating effective management of biodiversity.^{1,2} While there's been increasing alignment around using approaches like the mitigation hierarchy to achieve no net loss or net gain performance objectives for biodiversity, there's been no uniform way for the private sector, including extractives, to measure progress on these goals.

The Biodiversity Indicators for Extractives methodology aims to provide an approach that can meet the needs of extractives companies across both corporate and site-level decision-making in order to adaptively manage performance, and communicate results .

The project, set over four phases (Figure 1), aims to identify the current status of indicators and the needs of the extractive sector (Box 1), develop and pilot a methodology for generating indicators, and communicate the final outputs. Phase 1 showed current reporting frameworks, guidance and indicators do not meet the needs of the sector, confirming the need for a tailored approach.

Figure 1: Biodiversity Indicators for Extractives project phases



BOX 1: INDICATOR PRIORITIES FOR EXTRACTIVES

The following needs were identified by the extractives sector for biodiversity indicators to:

1. Establish corporate baselines and monitor performance related to specific targets;
2. Understand and demonstrate corporate level positive contribution to biodiversity conservation;
3. Provide a simple, standardised approach to monitor effectiveness of risk management actions across sites;
4. Communicate progress to key stakeholders (e.g. governments, civil society, voluntary initiatives, financiers);
5. Identify risks across a portfolio to enable prioritisation of management effort; and
6. Measure and monitor impacts and biodiversity management outcomes at site level for continuous improvement.

METHODOLOGY

In Phase 2, an approach was developed that incorporates both high-level portfolio screening and a site-level framework for creating and aggregating site-level metrics, in line with the needs identified for biodiversity indicators within the extractives sector (Box 1).

The methodology includes an initial stage of biodiversity sensitivity screening using global datasets, with validation by site managers, a second stage to apply a site level State-Pressure-Response framework and develop a site dashboard, and a third stage to aggregate the scores at the corporate level and use for reporting and disclosure.

STAGE 1:

The first stage involves the screening of a company's sites using readily accessible and appropriate global biodiversity datasets (available via the Integrated Biodiversity Assessment Tool—IBAT) to identify high sensitivity sites. Sites are assessed according to whether their physical footprint and/or area of influence overlaps with 1) **Protected Areas** in the World Database of Protected Areas, 2) likely or potential **Critical Habitat** as defined by the International Finance Corporation's Performance Standard 6 and the global Critical Habitat screening layer⁴, and 3) threatened **species** ranges according to data from the IUCN Red List of Threatened Species.

Sites are then categorised as High, Medium, or Low against these three criteria (see Figure 2). The results from this sensitivity screening stage will be validated with

Figure 2: Illustrative results from Stage 1

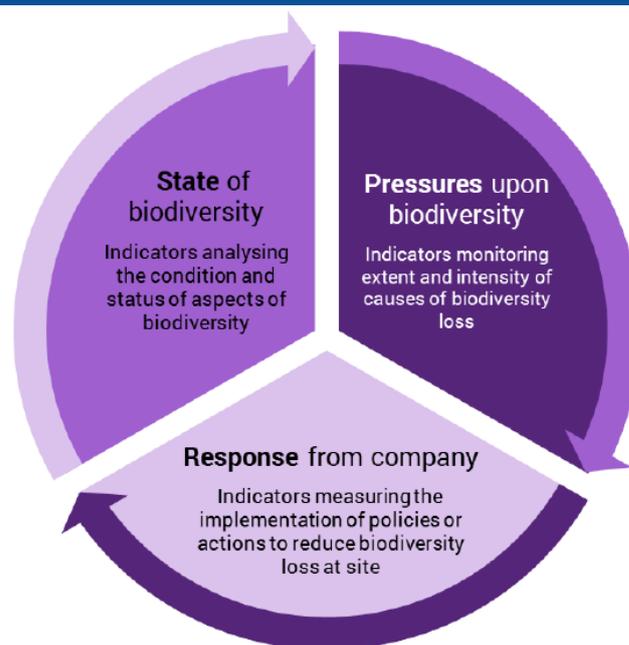
	Globally Threatened species	Critical habitat	Protected area	Potential site sensitivity based on global data
Site 1	High	High	High	High
Site 2	High	High	Medium	High
Site 3	High	Medium	Medium	High
Site 4	High	High	Low	High
Site 5	High	Medium	Low	High
Site 6	High	Low	Low	High
Site 7	Medium	Medium	Medium	Medium
Site 8	Medium	Medium	Low	Medium
Site 9	Medium	Low	Low	Medium
Site 10	Low	Low	Low	Low

site managers to identify where information from global datasets does not align with reality on the ground.

STAGE 2:

The individual sites are then examined in more detail during Stage 2 in order to identify priority biodiversity features and develop meaningful site-level indicators based on the **State-Pressure-Response framework** (Figure 3). This stage is based on data that is already collected at sites under existing requirements.

Figure 3: State-Pressure-Response framework used in Stage 2



Priority biodiversity features are firstly identified based on a review of existing site-level documentation (for example Environmental Impact Assessments and Biodiversity Action Plans).

The **State** of the priority biodiversity features is calculated as a percentage of the species population or habitat remaining compared to a pre-project baseline, adapted from BirdLife International's global framework for monitoring Important Bird Areas⁵. The **Pressures** on features are identified from existing site documentation and scored based on their timing, scope, and severity. Finally, the companies **Response** to these pressures is assessed in alignment with the mitigation hierarchy

and scored based on whether avoidance, minimisation, restoration or offset activities have been planned and/or implemented.

The information for each priority biodiversity feature is aggregated into a site-level dashboard in order to monitor the **State** of biodiversity at a site, identify the most significant **Pressures** on biodiversity and assess the effectiveness of current mitigation **Responses** (see Box 2). This enables companies to track the priority biodiversity features throughout the lifecycle of a project and visually assess where efforts to improve performance should be targeted.

STAGE 3:

At a **corporate level and for external reporting**, it will be necessary to aggregate the State-Pressure-Response metrics to understand site performance across a portfolio. The best approach for aggregation will be

addressed during the piloting of the methodology with existing site-level data.

PILOTING

In the current Phase 3, the methodology is being piloted with a number of energy and mining companies. The sites involved span a range of operational activities and project stages in both the marine and terrestrial realm.

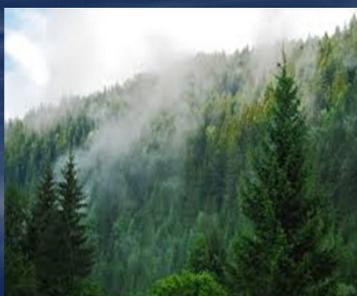
A number of questions on the methodology will be addressed through the piloting, for example defining the area of influence and criteria upon which to select priority biodiversity features.

In Phase 4, the methodology will be refined following feedback from piloting companies and partners, and then disseminated to relevant stakeholders and integrated within existing guidance where appropriate.

BOX 2: CASE STUDY

The table below shows an example site dashboard to evaluate site-level information for priority biodiversity features against a State-Pressure-Response framework with defined thresholds to score State, Pressure and Response as Red, Amber or Green. Further details on the thresholds will be made available in the refined methodology following the piloting process.

	PRIORITY BIODIVERSITY FEATURE						
	SIBERIAN SPRUCE GROUSE			DARK CONIFEROUS FOREST	PEATLAND SWAMPS		
STATE	Abundance of grouse species			Status of dependent species	Percentage of peatland remaining		
PRESSURE	Residential and commercial development	Other ecosystem modifications	Hunting and collecting	Residential and commercial development	Other ecosystem modifications	Pollution – oil spills	Water
RESPONSE	Some mitigation activities implemented, additional activities planned	Some mitigation activities implemented, additional activities planned	Fully implemented mitigation activities	No planned mitigation activities	Some mitigation activities implemented, additional activities planned	Fully implemented mitigation activities	Some planned mitigation activities



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