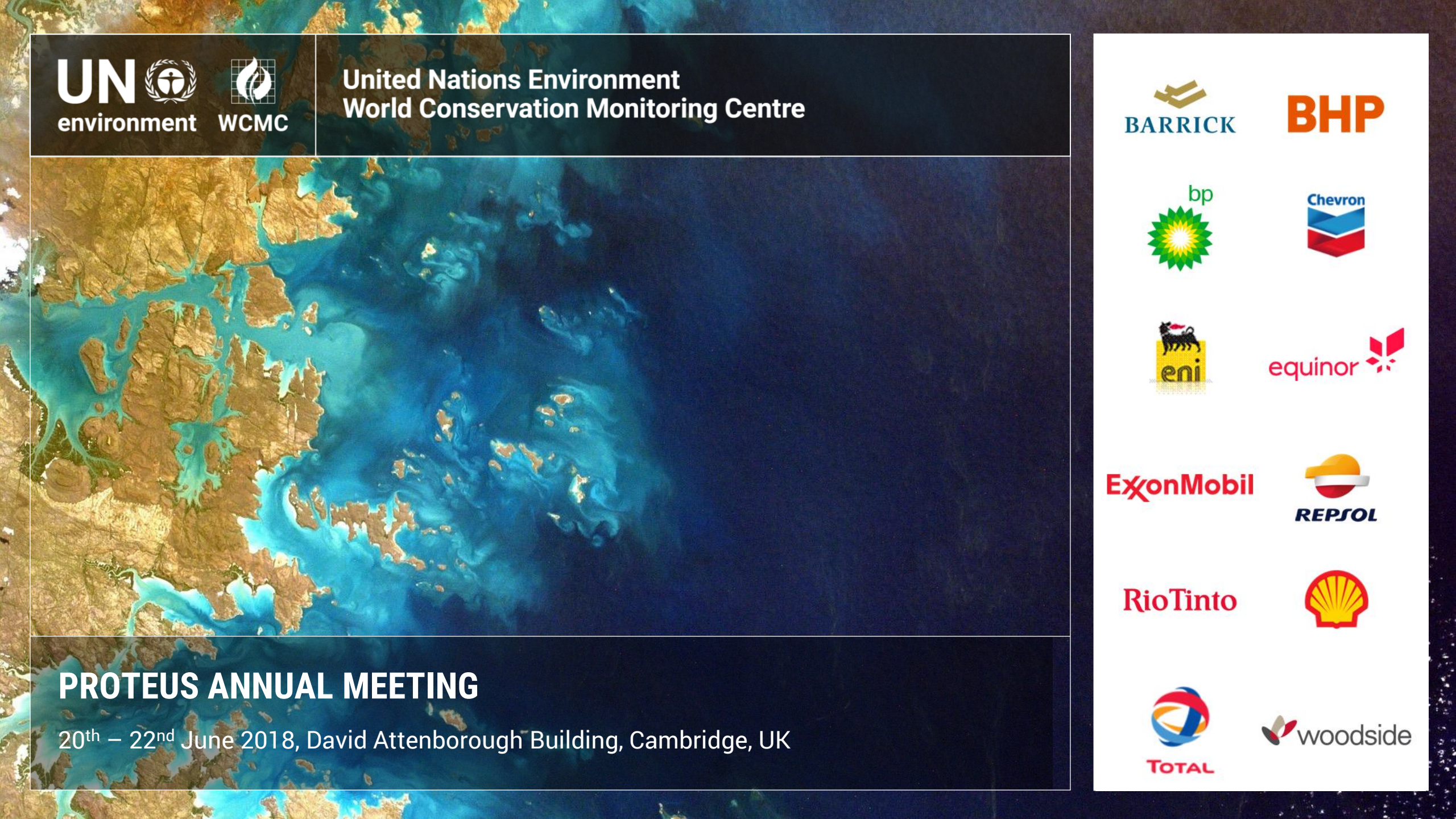

UN environment WCMC

United Nations Environment
World Conservation Monitoring Centre

PROTEUS ANNUAL MEETING

20th – 22nd June 2018, David Attenborough Building, Cambridge, UK

BARRICK BHP bp Chevron eni equinor ExxonMobil REPSOL RioTinto Shell TOTAL woodside

United Nations Environment
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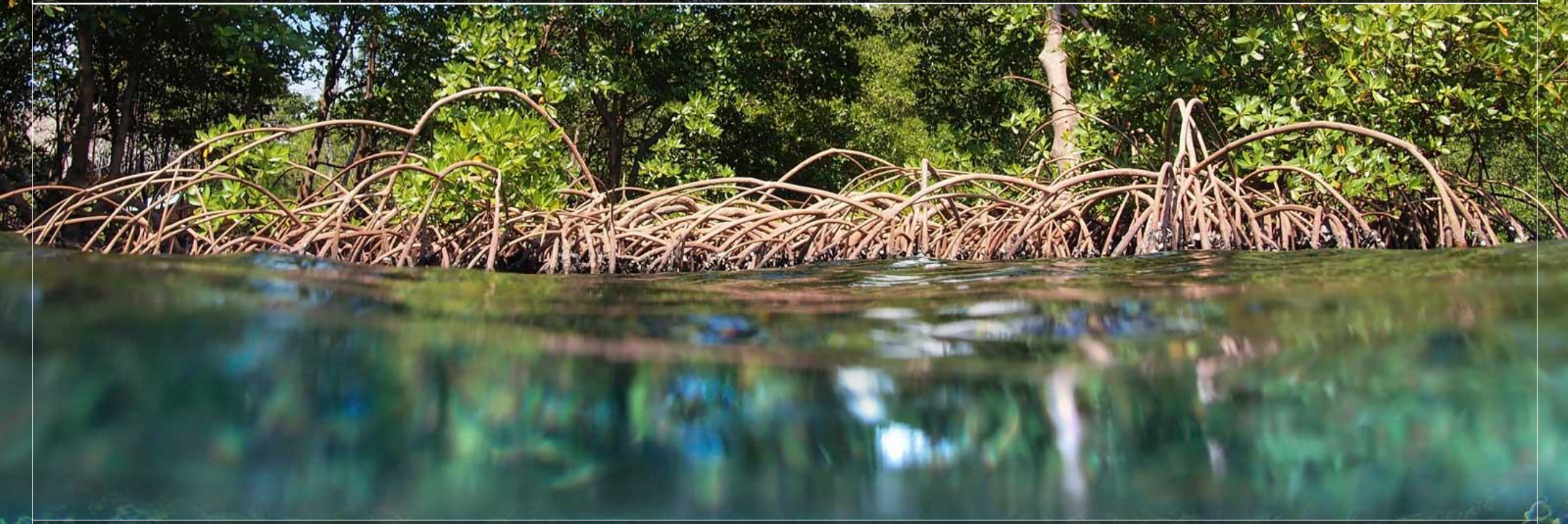
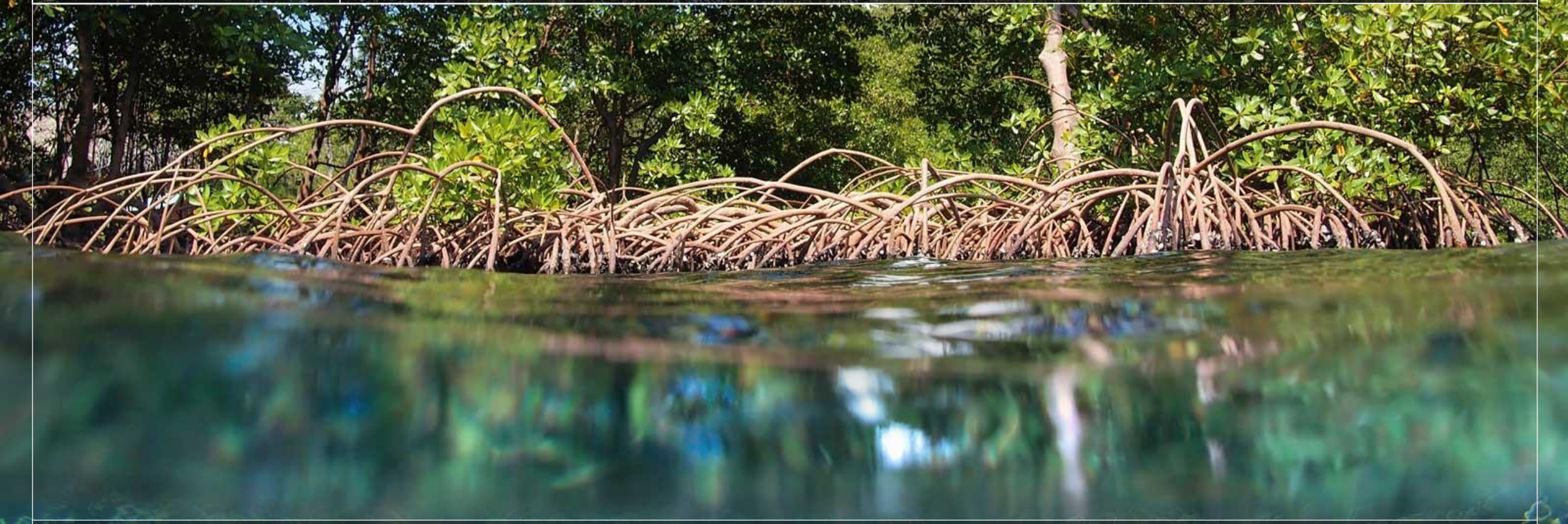


BIODIVERSITY INDICATORS AND THE EXTRACTIVE SECTOR

21/06/2018

United Nations Environment
World Conservation Monitoring Centre



DEVELOPING BIODIVERSITY INDICATORS FOR EXTRACTIVES – METHODOLOGY

Annelisa Grigg, Principal Specialist, UNEP-WCMC

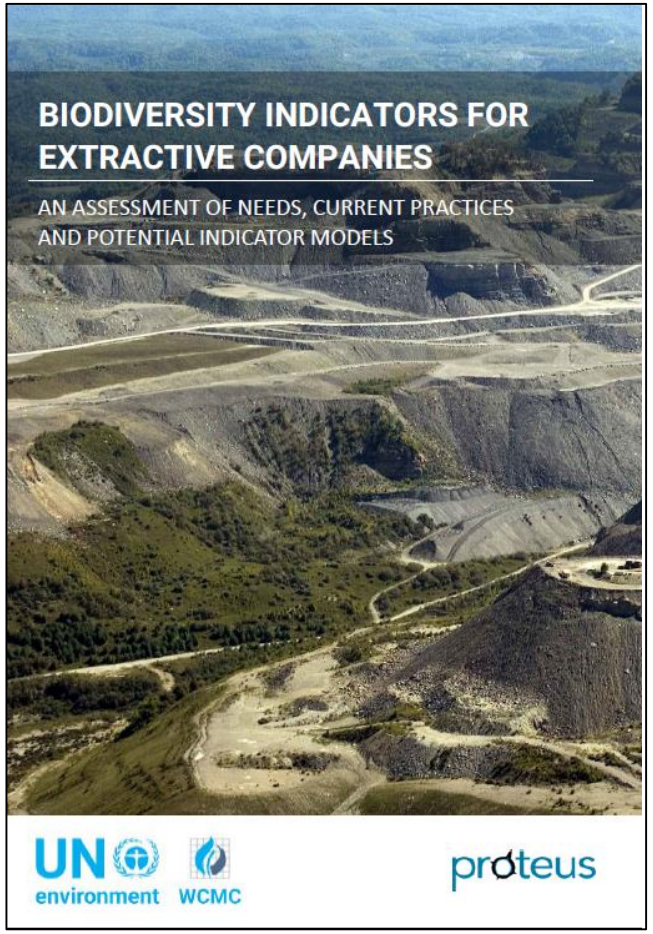
21/06/2018

Overview

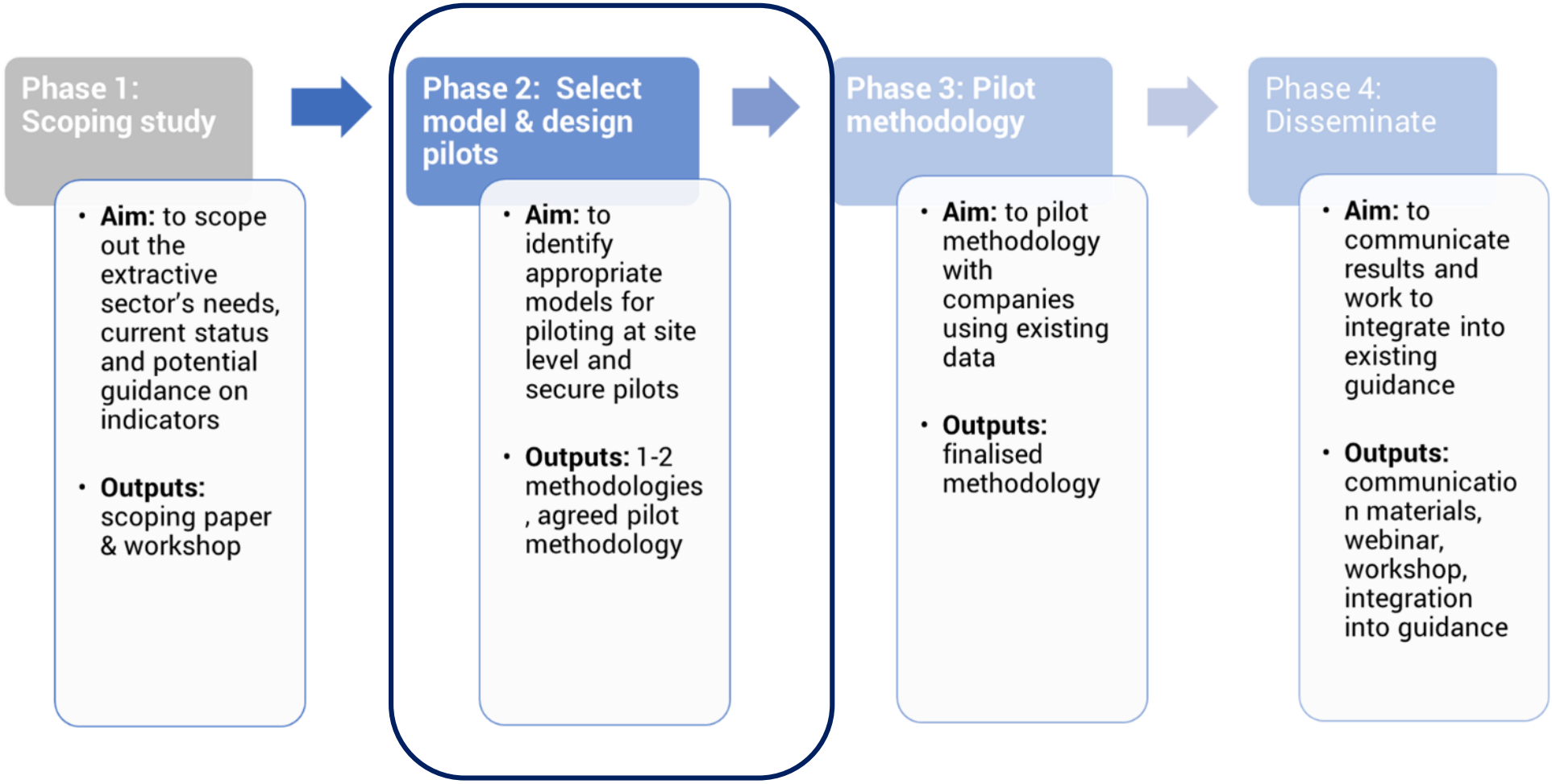
- **Project recap**
- **Methodology**
  - Stage One: biodiversity sensitivity screening
  - Stage Two: applying site level framework
  - Stage Three: aggregation and reporting
  - Limitations
- **Group discussion**

Background

- Limited progress made on indicators since the Energy & Biodiversity Initiative and ICMM Good Practice Guidance
- Increasing demands by stakeholders to demonstrate progress on biodiversity management
- Aims to identify and test corporate biodiversity performance indicators that meet the needs of the extractive sector, are scientifically credible, transparent and understandable



Biodiversity indicators for extractives - project phases



Definitions

Indicators: quantitative or qualitative factor or variable that provides a simple and reliable means to measure performance (OECD/DAC 2002)

- **Impact indicators:** (sometimes known as 'performance' or 'outcome' indicators) help to answer the question, 'how are our activities affecting biodiversity?'
- **Implementation indicators:** (also 'process' or 'output' indicators) help to answer the question, 'did we do what we said we would, when we said we would?' (BIP 2011).

Biodiversity sensitivity: the extent to which a defined area contains biodiversity values that are potentially sensitive to company activities

Focus of guidance

Primary user

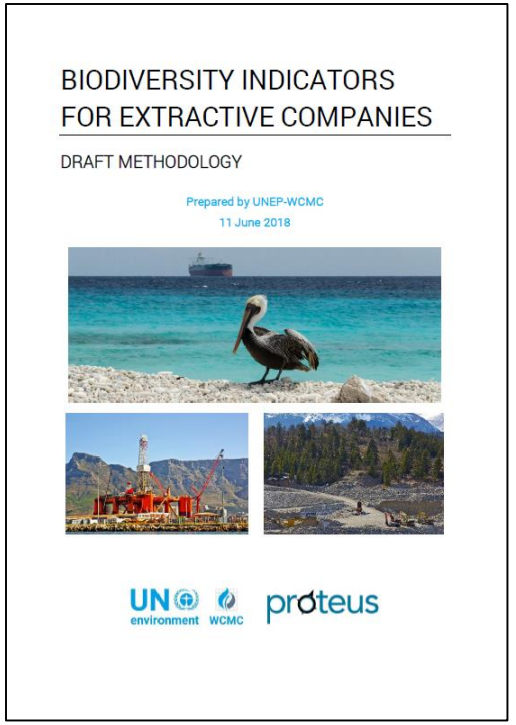
- Corporate and site level environmental experts within oil and gas and mining

What the guidance does

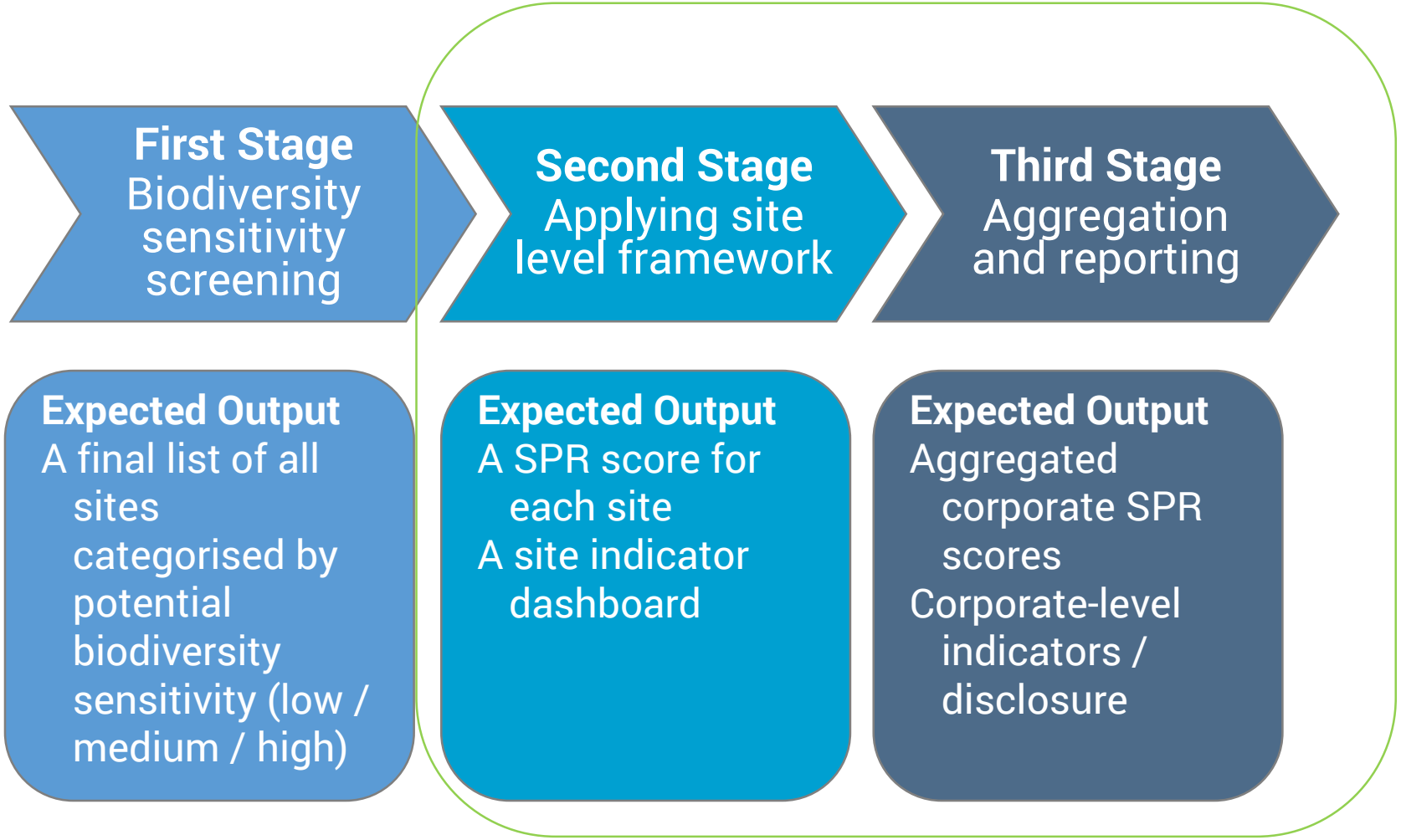
- Indicators to monitor business risk and management response associated with impact on biodiversity
- Focus on production of indicators that meeting management information needs and drive internal performance

What the guidance does not do

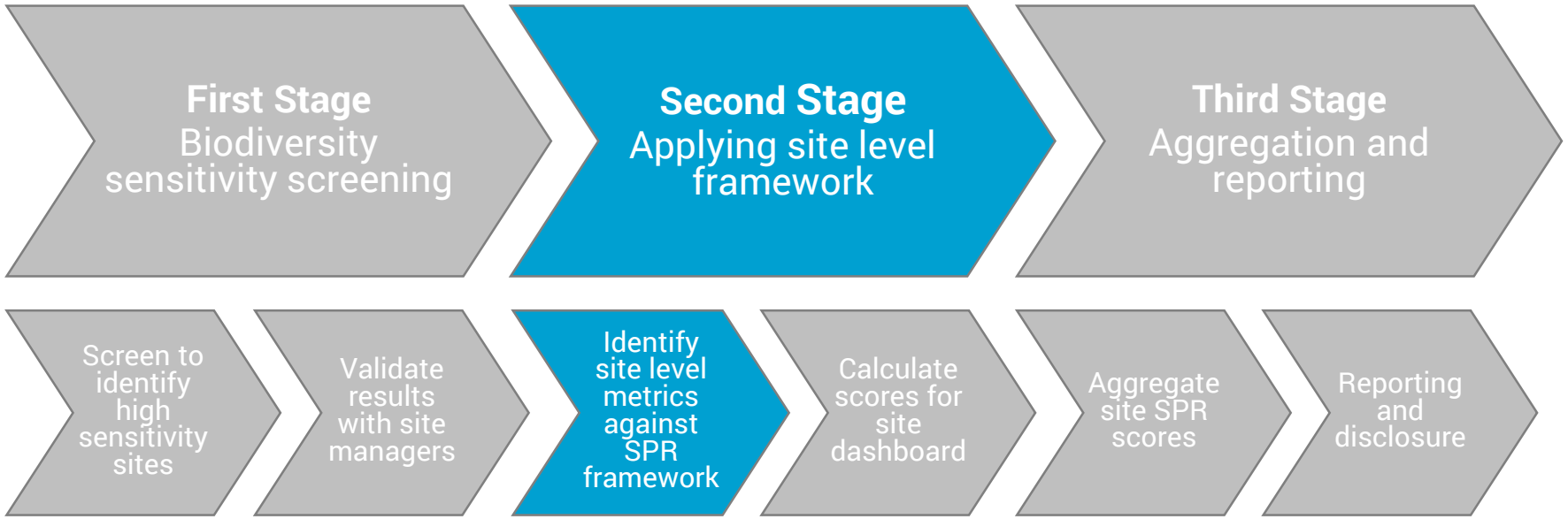
- Provide a single indicator for external disclosure and communication



A three stage process



Stage 2: Applying site level framework

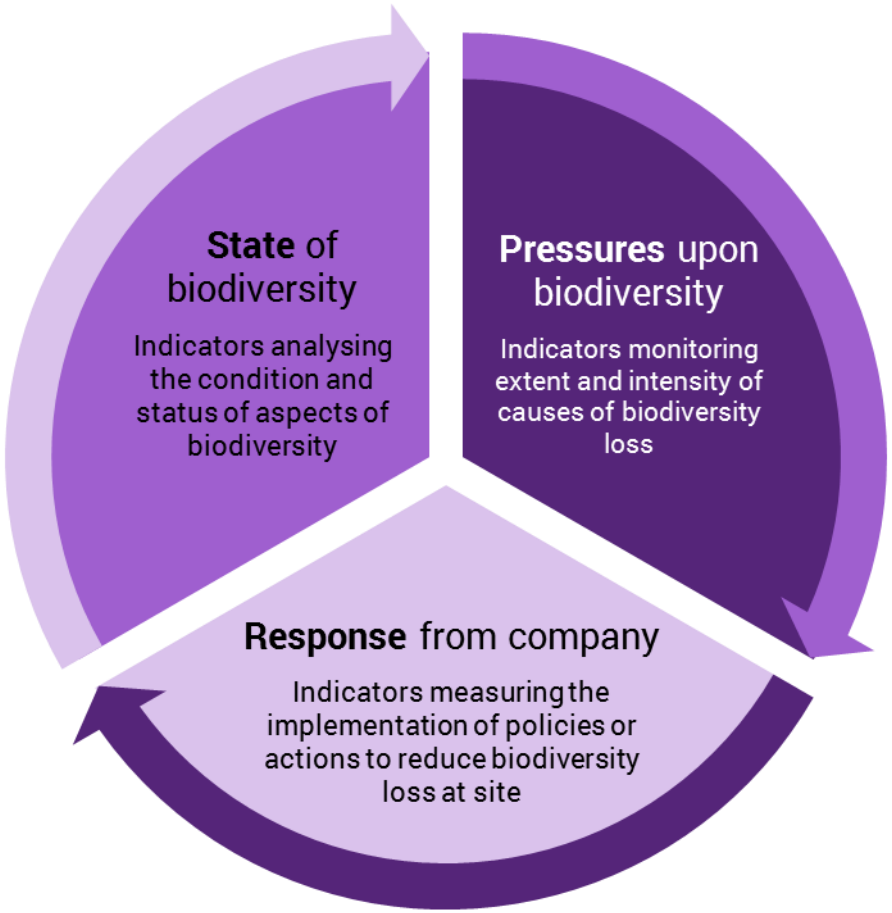


Expected Output

- A list of site indicators for SPR

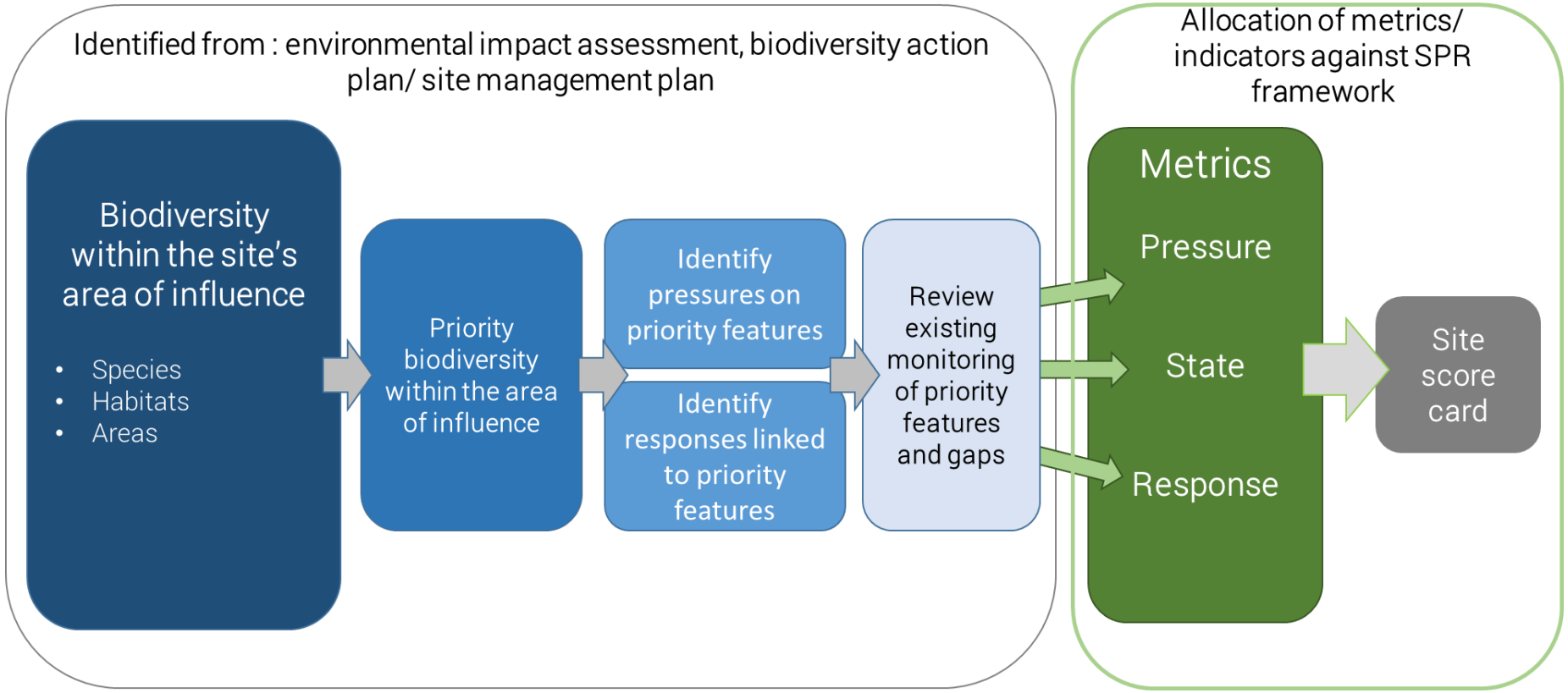
The State-Pressure-Response Framework

- Useful organising framework for biodiversity indicators
- Well used by governments at a policy level to track attainment of policy targets, by the conservation community and the private sector
- Enables related but independent (and otherwise non-comparable) metrics to be analysed together



Step 3: Identify site level metrics against SPR framework

The SPR framework is applied on information flowing from existing plans.



Evaluate existing metrics for biodiversity features against SPR

Biodiversity feature	State	Pressure	Response
	Abundance of grouse species (population numbers)	Construction related disturbance (area of habitat disturbed)	Minimise disturbance through time and space (area of habitat disturbed)
	Status of dependent species e.g. long-billed murrelet (no of individuals)	Fragmentation & habitat modification from construction (ha forest lost)	Primary forest protection and forest restoration activities (ha protected or restored)
	Percentage of peatland remaining	Fragmentation & habitat modification from construction (area of habitat disturbed)	Avoidance of peatland destruction (ha avoided)

Calculating scores for state

Adapted from BirdLife International (2006) Monitoring Important Bird Areas: a global framework.

State

State

Assessed based on population sizes for priority species, area and quality of key habitats.

$$\text{Population remaining} = \frac{\text{Current population}}{\text{Baseline population}} \text{ X } 100\%$$

Where population data is unavailable, area and quality of habitat on which the species depends can be used as a surrogate for population size.

$$\text{Area remaining} = \frac{\text{Current area}}{\text{Baseline area}} \text{ X } 100\%$$

Score needs adjustment to reflect degradation in habitat quality

Score based on feature showing worst results

% potential population or habitat remaining of the worst species or habitat	State score
>90%	Good
70-90%	Moderate
0-70%	Poor

Calculating scores for pressure

State

Pressure

Each feature assigned scores for pressures.

Calculated from scores reflecting timing, scope and severity of pressure.

Score = timing + scope + severity

Score of highest priority feature	Pressure score
0-2	Low
3-5	Medium
6-9	High

Pressure	Score based on thresholds			
	0	1	2	3
Timing of pressure	Past	Likely in long term (> 4 years)	Likely in short term (4 years)	Happening now
Scope of pressure	Few individuals/ small area (< 10%)	Some of population/ area (10-50%)	Most of population/area (50-90%)	Whole population/ area (>90%)
Severity of pressure	No or imperceptible deterioration (< 1 % over 10 years)	Slow deterioration (1-10% over 10 years or 3 generations)	Moderate deterioration (10-30% over 10 years or 3 generations)	Rapid deterioration (>30% over 10 years or 3 generations)

Calculating scores for response

State

Response

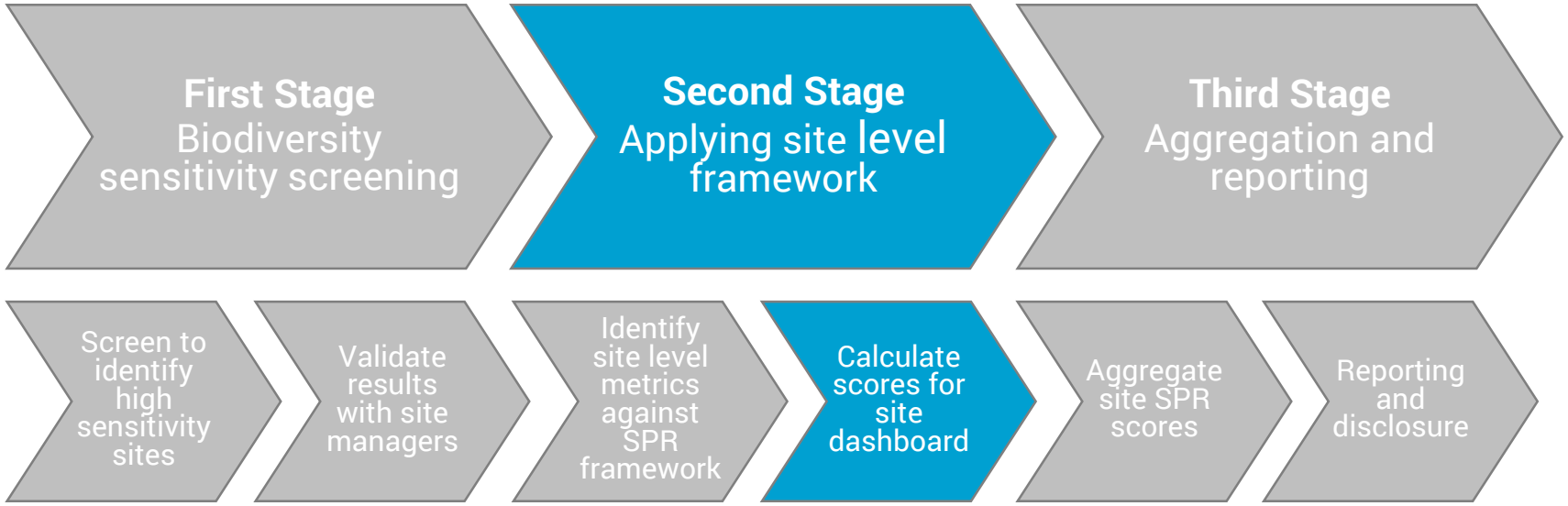
Score summed for three response areas below

Where separate management plans exist for different features, the lowest score is selected

Score of highest priority feature	Response score
8-9	High
6-7	Medium
0-5	Low

Pressure	Score based on thresholds			
	0	1	2	3
Proportion of priority habitats under management	Little/ no priority habitats under biodiversity conservation management (< 10%)	Some priority habitats under biodiversity conservation management (10-50%)	Most of priority habitat (including most critical parts for priority features 50-90%)	All priority habitat covered by appropriate management plan for biodiversity features (>90%)
Extent of implementation of management plan	No management plan in place	No management plan, development begun / Management plan in place but out of date or not comprehensive	Management plan exists that aims to conserve priority biodiversity features, targets not being met	Management plan in place and targets being met
Extent of conservation action	Very little or no action taking place	Some limited initiatives in place	Substantial measures implemented but not comprehensive or are resource constrained	Measures for priority features are being comprehensively and effectively implemented

Step 4: Calculate scores for dash board



Expected Output

- SPR assessments for each site
- A site indicator dashboard

Example site dashboard

Site	State	Pressure	Response
Site #1	Red	Red	Amber

Detail metrics dashboard

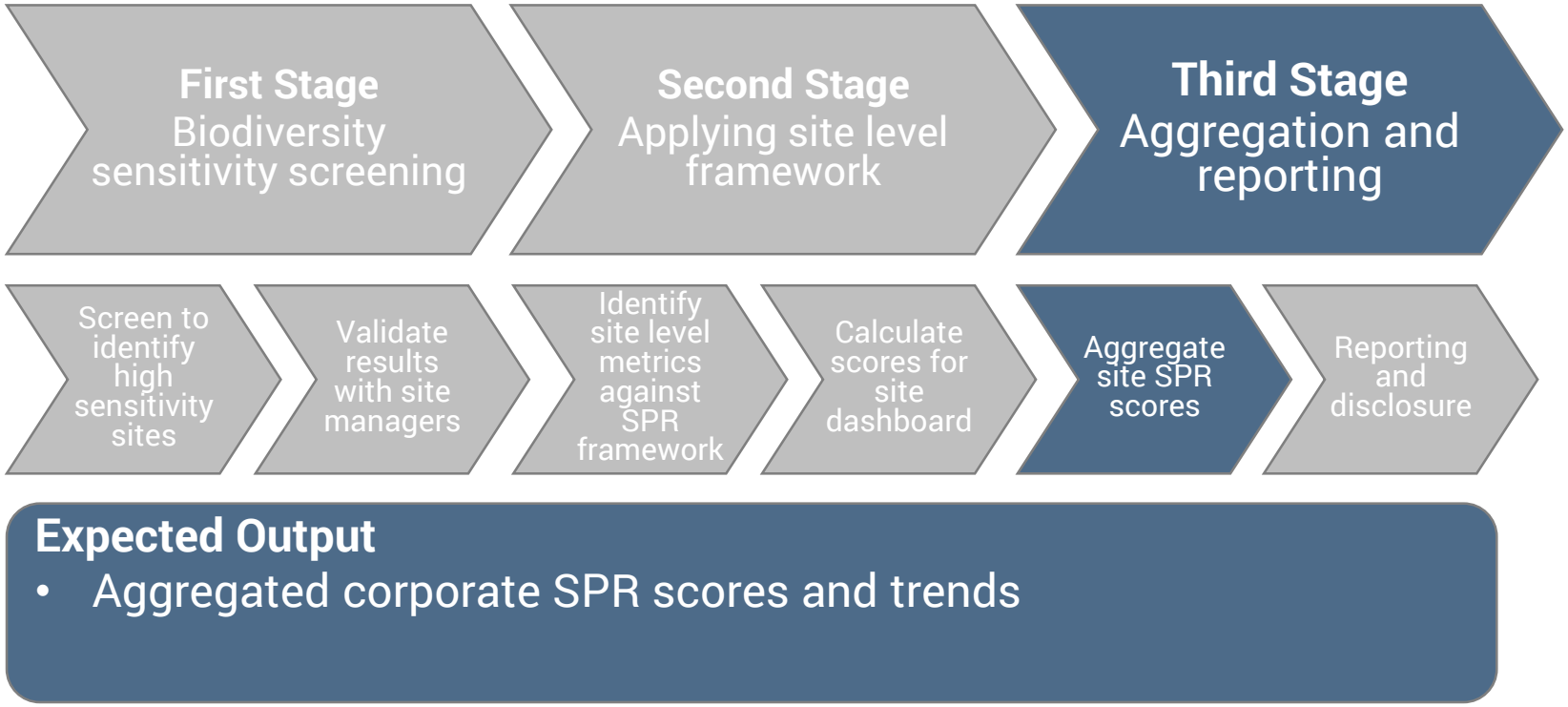
Score based on the 'worst' species or habitat score

Site details							Score
State			Priority biodiversity feature		% remaining		Red
Habitat	Forest		Yes		93%		3
Habitat	Grassland		Yes		43%		1
Habitat	Freshwater		Yes		60%		3
Species	Lappet-faced Vulture		Yes		98%		3
Species	Chimpanzee		Yes		97%		1
Pressure	Timing		Scope		Severity		Red
Land clearance	Now	3	Some	1	Rapid	3	7
Noise	Now	3	Some	1	Moderate	2	6
Air emissions	Likely short	2	Few	0	No	0	2
Roadkill	Likely short	2	Few	0	Slow	1	4
Water abstraction	Now	3	Most	2	Rapid	3	8
Response					Status		Amber
Proportion of priority habitats managed for conservation					Most of area		2
Management plan implementation					Comprehensive		3
Management Action					Substantial		2

Score based on the 'highest' pressure score

Score based on the summed scores of each response category

Stage 3: Applying site level framework



5.1 Aggregation of scores from the SPR framework

	State	Pressure	Response
Red	2⇔	2⇩	2⇩
Amber	3⇩	3⇔	2⇩
Green	2⇧	2⇧	3⇧

Site level breakdown

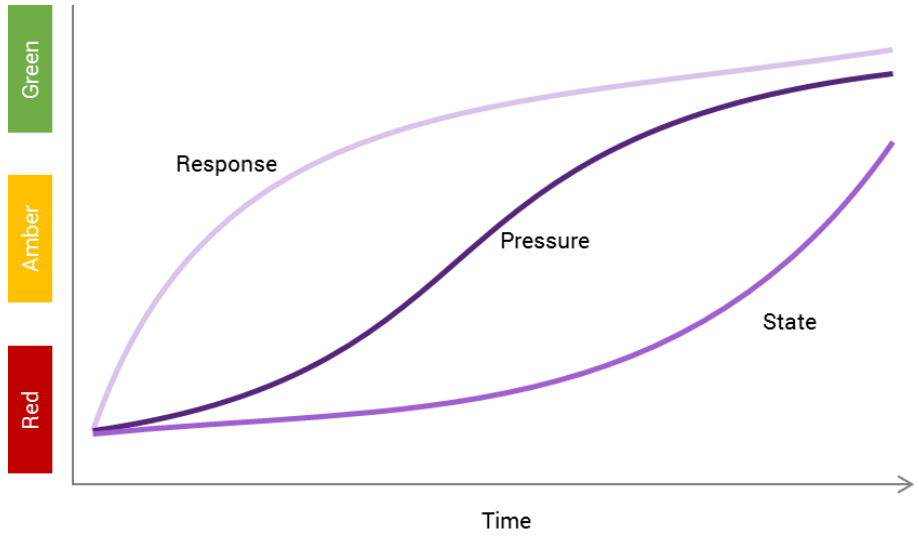
Site	State	Pressure	Response
Site #6	Red	Amber	Red
Site #4	Red	Red	Amber
Site #7	Green	Red	Green
Site #1	Amber	Amber	Amber
Site #5	Amber	Green	Red
Site #2	Green	Amber	Green
Site #3	Green	Green	Green

Separate indicators maintained for state, pressure, response

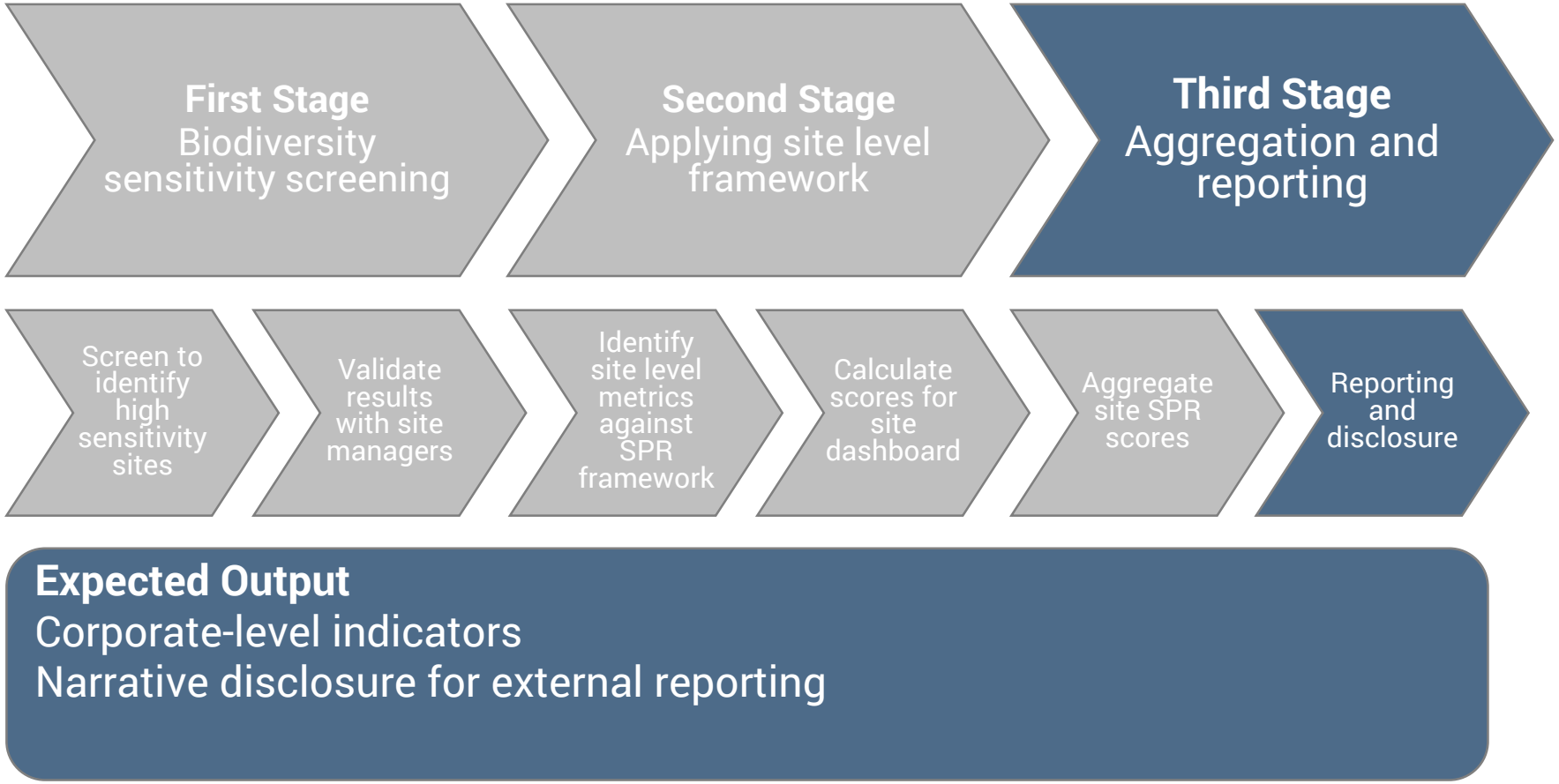
Response indicator likely to show change first

Change in response should lead to change in pressure

May be a significant lag before state is influenced



Step 5 Aggregate site SPR scores



Disclosures – food for thought

Indicator	Status	Baseline	Current	Commentary
Priority Habitats (in fulfilment of GRI indicator 304-1)				
No. and proportion of land area identified as sensitive[i]		X (X %)	X (X %)	

Name & location	Reason for sensitivity	Progress against baseline			Commentary
		S	P	R	
Site 1, South Africa	World Heritage Site (name)	↓	↑	↔	Explanation of issue, action
Site 2, Greece	Potential critical habitat	↔	↑	↑	Explanation of issue, action
Site 3, Australia	Local regulatory requirement	↓	↓	↑	Explanation of issue, action
Site 4, Egypt	Key biodiversity area	↑	↓	↔	Explanation of issue, action

Limitations

- **Isolating pressures attributable to corporate action**
- **Determining linkages between pressure, state and response indicators**
- **The resultant indicator set may be complex to communicate**
- **The approach is reliant on existing management systems**

Questions for discussion

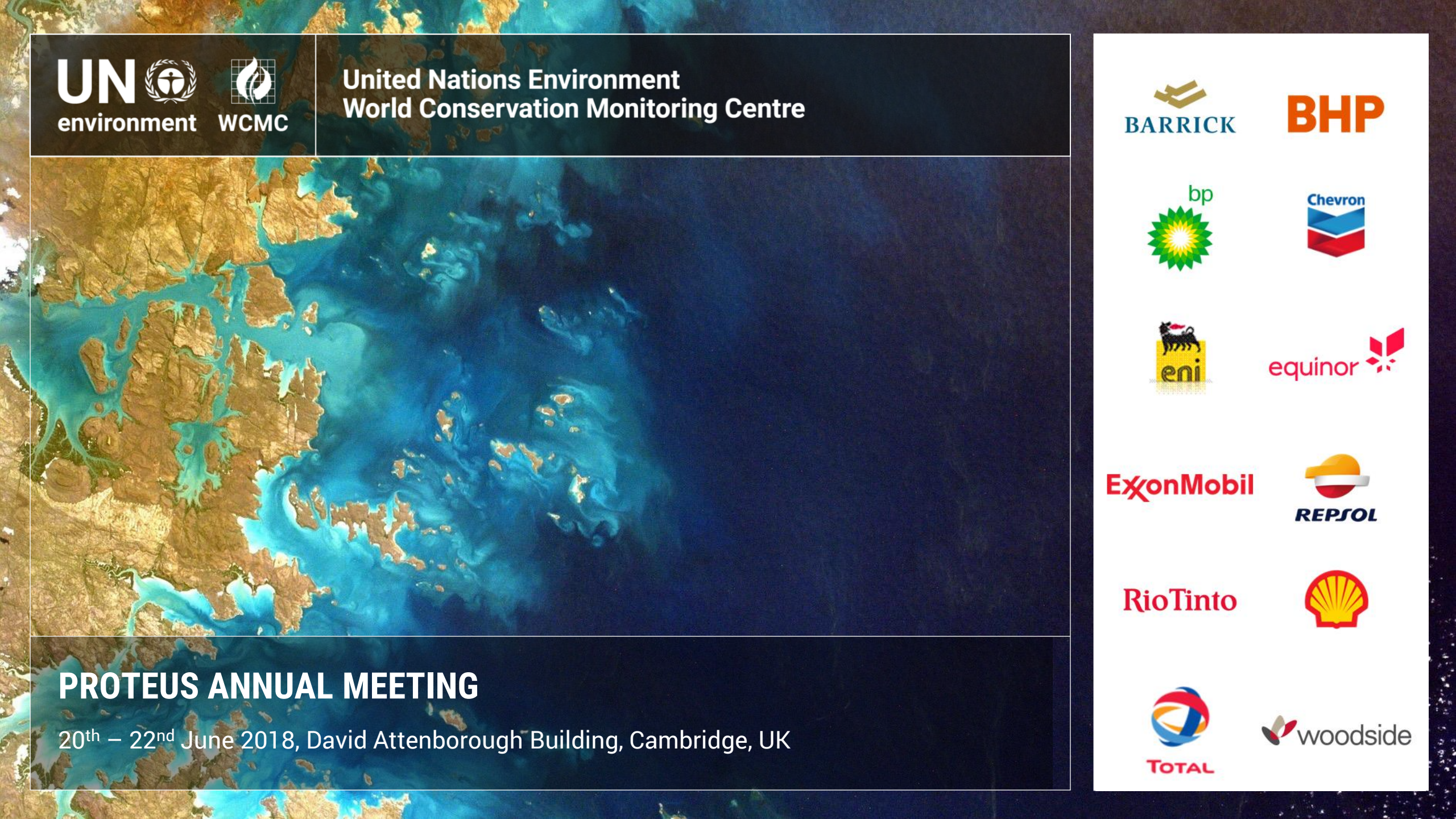
1. Does the selected methodology meet your business needs?
2. Does it provide a meaningful presentation of performance that is credible and interesting to external stakeholders?
3. How important is it to link this work to broader policy trends, such as the Sustainable Development Goals?
4. What adjustments are required to the methodology**?**

The challenge:

- 45 minutes discussion in your tables
- Nominate one presenter
- 4 minutes presentation back from each

Breakout groups

	Group 1	Group 2	Group 3	Group 4
Facilitator	Annelisa Grigg	Eugenie Regan	Matt Jones	Sam Hill with Marielle C-W
Scribe	Jack Rossiter	Katie Dawkins	Seb Bekker	Katie Leach
Group members	Anne Dekker (BHP) Magnus Eriksen (Equinor) Leo Viana (CI Jason Frederick (TOTAL) Chris McCombe (ICMM) Gail Ross (Barrick – remote) Gerard Bos (IUCN - remote) Caroline van Leenders (RVO – remote) Johan Lammerant (Arcadis – remote) Stuart Anstee (Sa&a – remote) Rosemary Bissett (NAB – remote)	Mark Goedkoop (Pre) Marco Pelucchi (Eni) Aoife Reynolds (Shell) Rich Davi (ExxonMobil) Marta Santamaria (NCC) Jarrod Pittson (Woodside) Mel Heath (BirdLife) Yichuan Shi (UNEP-WCMC) Rose Choukroun (CDC)	Gemma Cranston (CISL) Joshua Berger (CDC) Jeff Pollock (Chevron) Gertjan Roseboom (Shell) Malcolm Starkey (TBC) Luke Smith (Woodside)	Liam Walsh (CISL) Maarten Kuijper (BP) Teri Ott (Rio Tinto) Raquel Fernandez (Repsol) Twyla Holland (FFI) Anna Gray (IPIECA) Marielle Weikel-Canter (CI) Lydia Handford (UNEP-WCMC) Corli Pretorius (UNEP-WCMC)



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