



United Nations Environment
World Conservation Monitoring Centre

PROTEUS ANNUAL MEETING

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





Business dependence on nature and potential natural capital-related risk exposure

Katie Leach – Programme Officer, Business and Biodiversity

Natural capital underpins all economic activities

Companies in which financial institutions have an interest are reliant on natural capital for a range of essential functions, from raw materials through to flood protection and water security

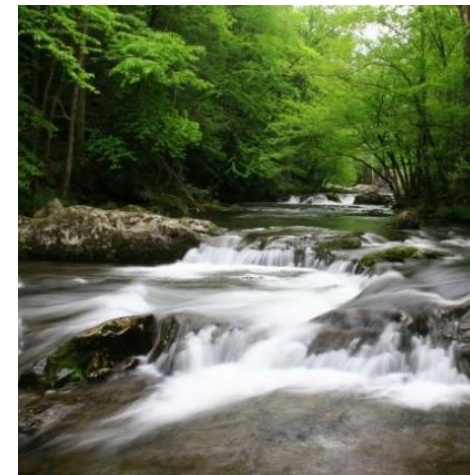
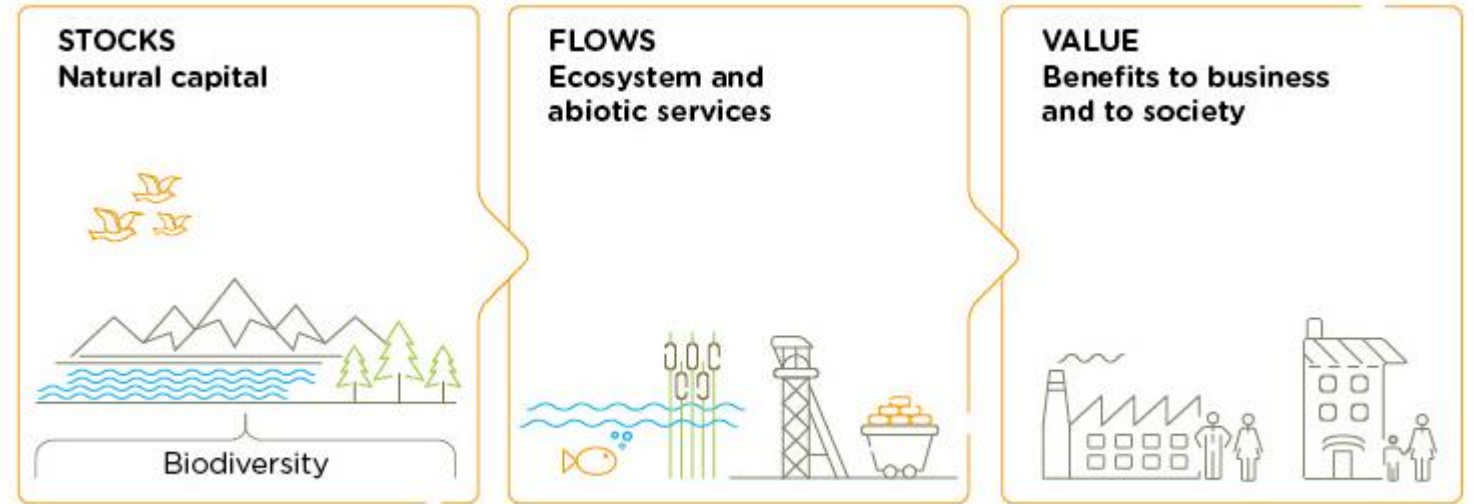


What is natural capital?

(Natural Capital Coalition, 2016)

“stock of renewable natural resources (e.g. forests, plants, animals, air, water, soils) that combine to yield a flow of benefits to people”

(Natural Capital Finance Alliance)



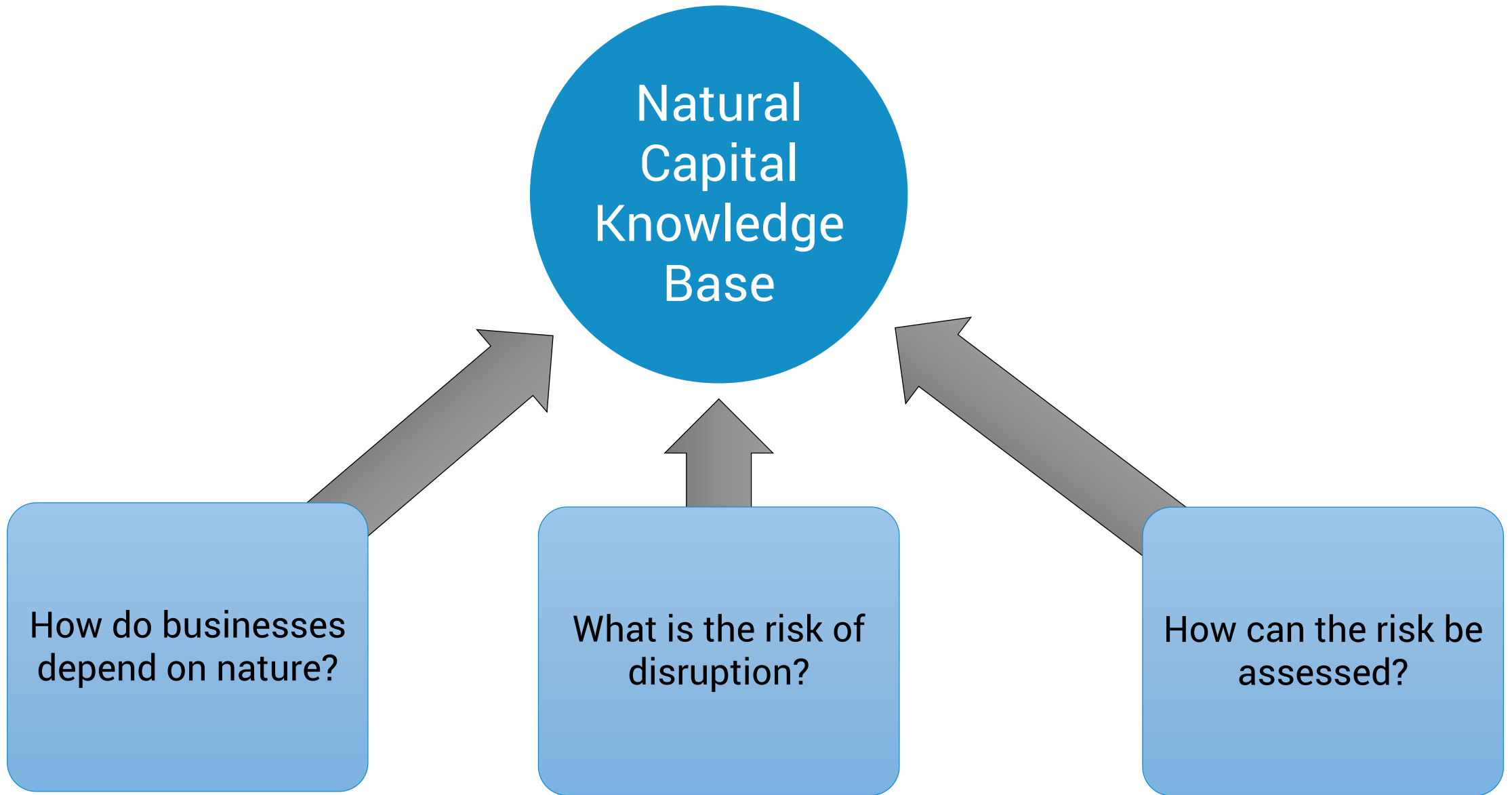
Advancing Environmental Risk Management

Building the knowledge base needed for financial institutions to understand exposure to natural capital risks





NATURAL CAPITAL KNOWLEDGE BASE



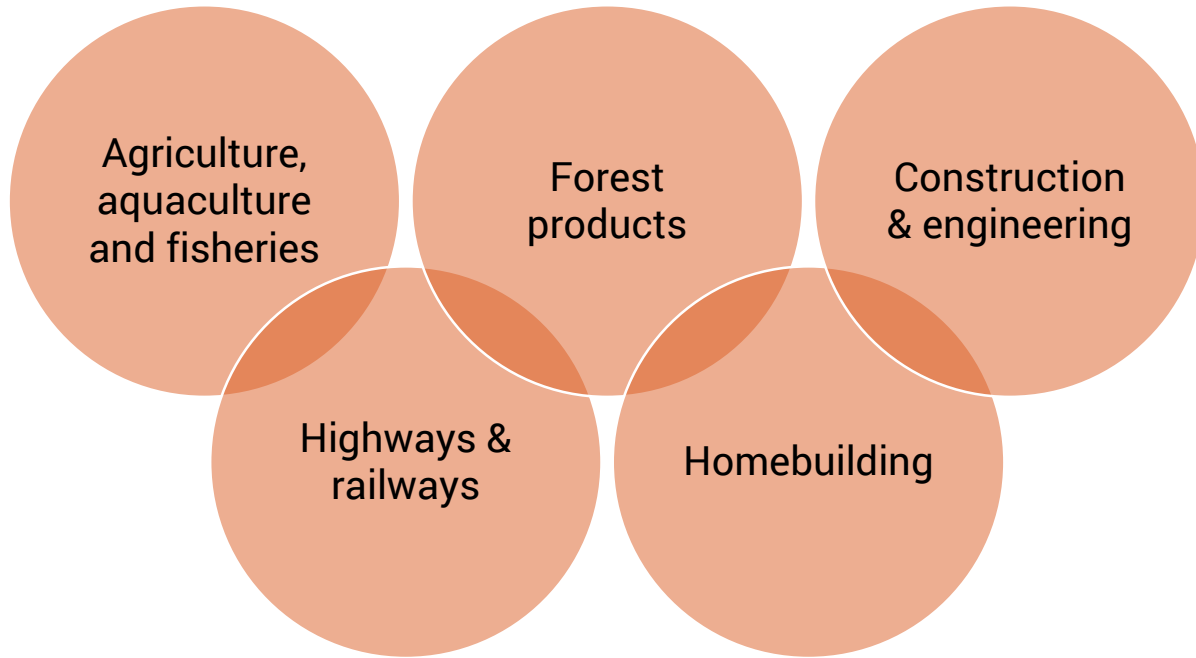
How do businesses depend on nature?

Catalogue of business dependencies on ecosystem services

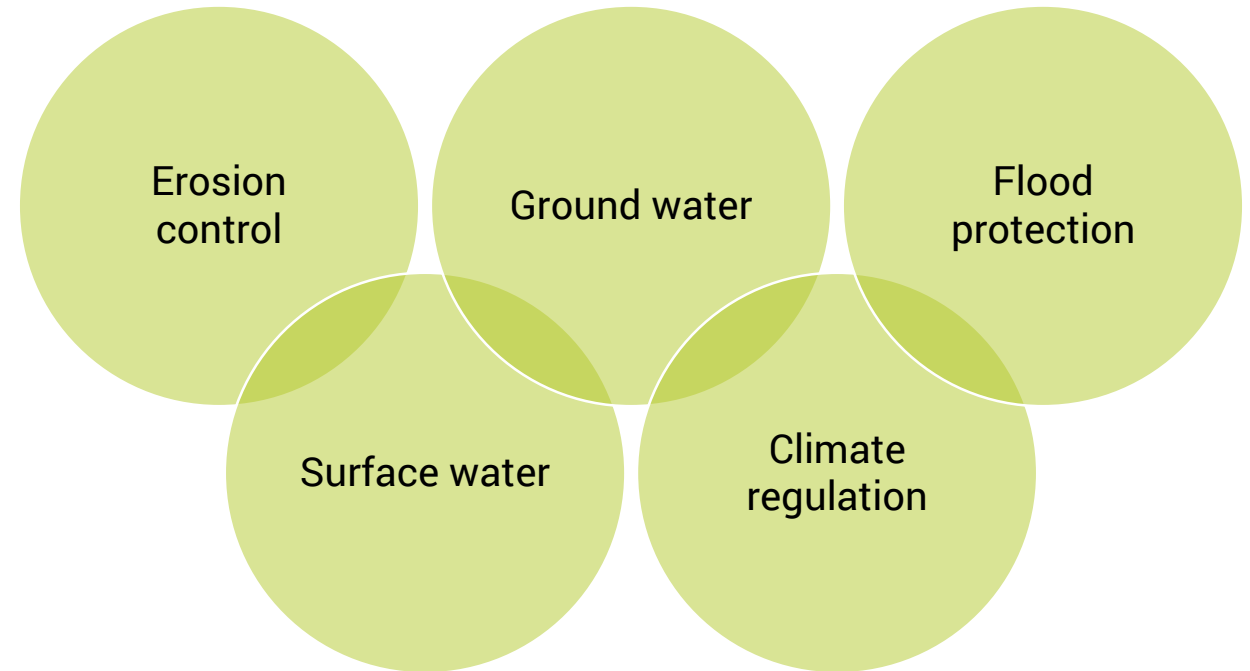
- 29 ecosystem services e.g. climate regulation, water, fibres
- 160 sub-industries e.g. apparel
- 223 production processes e.g. natural fibre production



How do businesses depend on nature?



Top 5 sub-industries with the highest number of dependencies on the environment

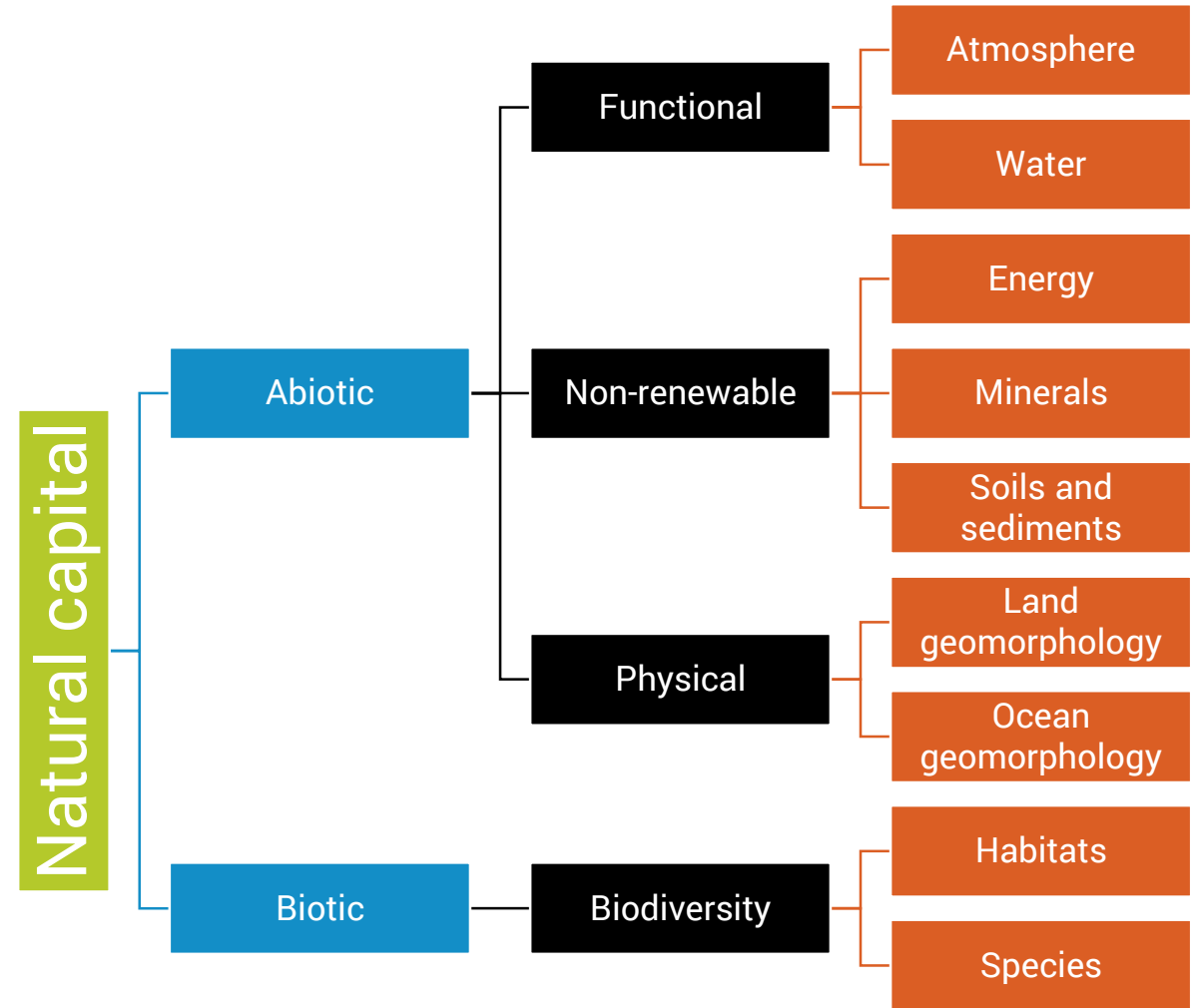


Top 5 ecosystem services with the highest number of production processes dependent upon them

What is the risk of disruption?

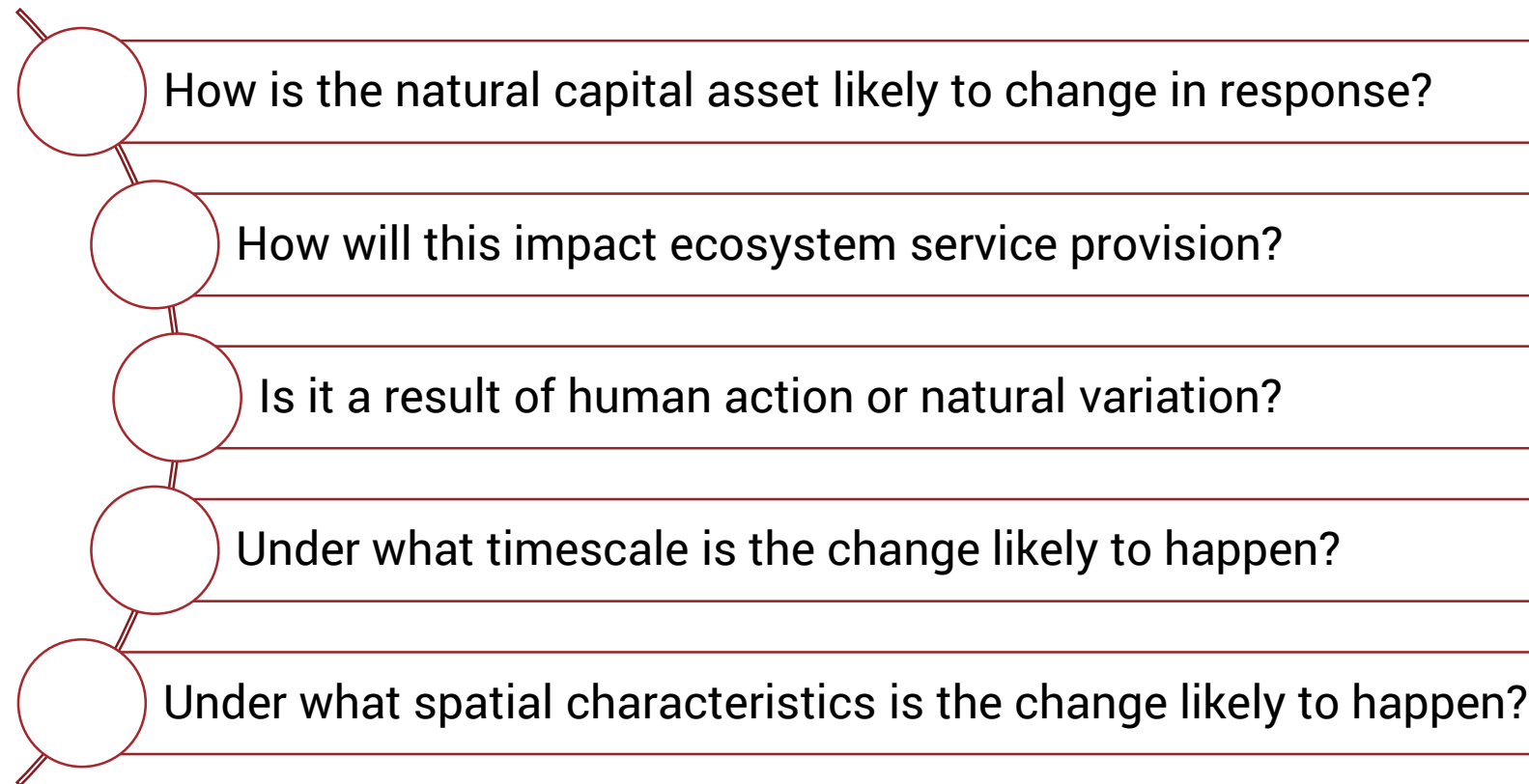
Factsheets for each ecosystem service

- What natural capital assets are involved?
- How do they combine to enable ecosystem service provision?
- What are the possible drivers of change in natural capital assets?



What is the risk of disruption?

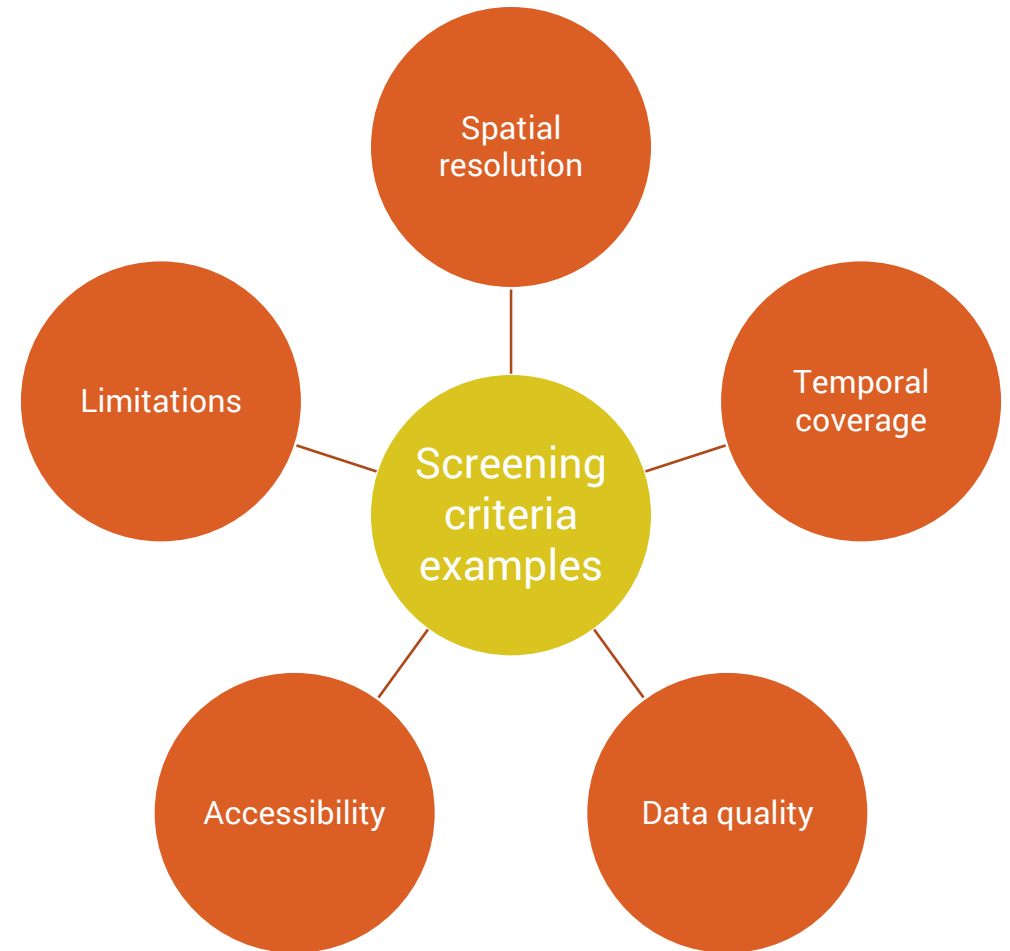
Drivers of change on natural capital assets



How can the risk be assessed?

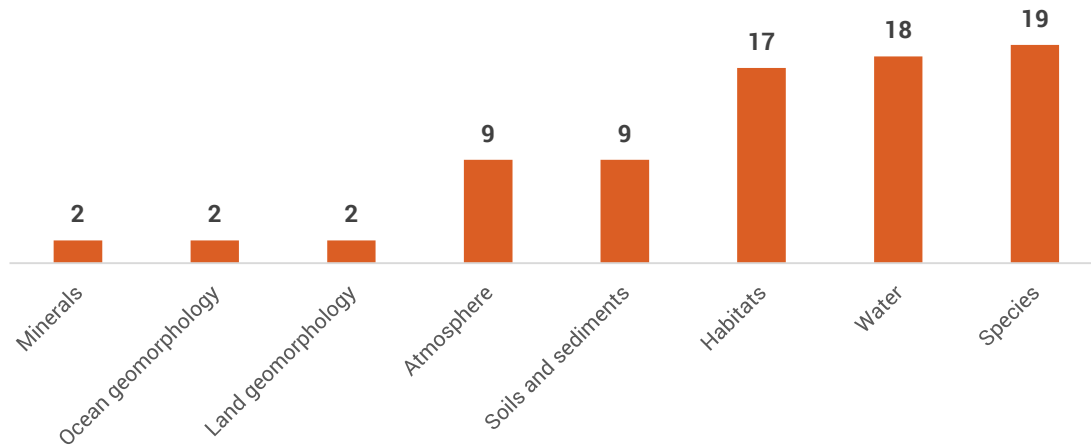
Available data for natural capital assets and drivers of change were identified at global and national-levels

- Global inventory with ~130 data sources
- National inventories for Colombia, Indonesia, Peru and South Africa
- Screened against 18 criteria to highlight robust data for decision-making

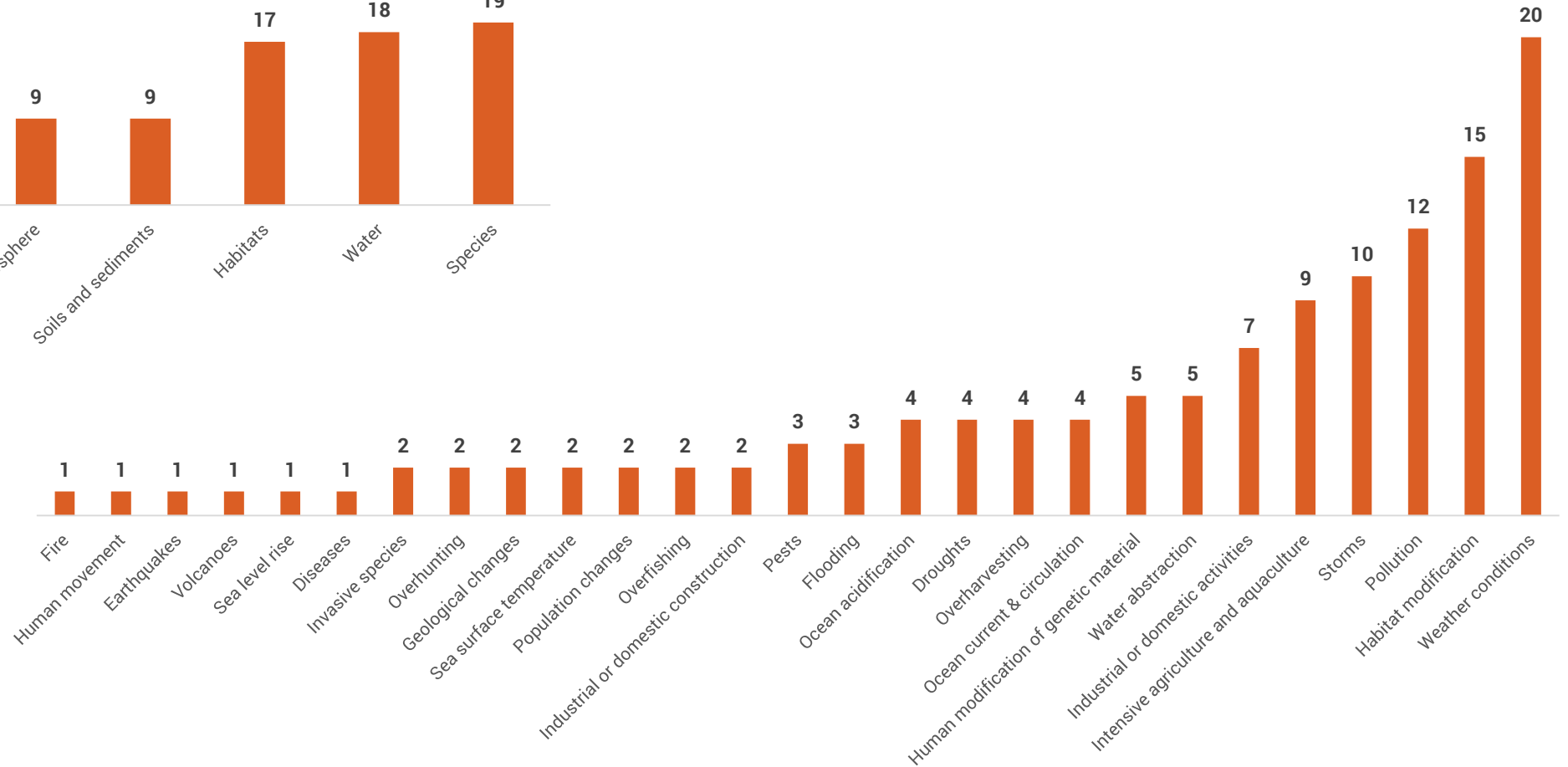


How can the risk be assessed?

Data sources for each natural capital asset

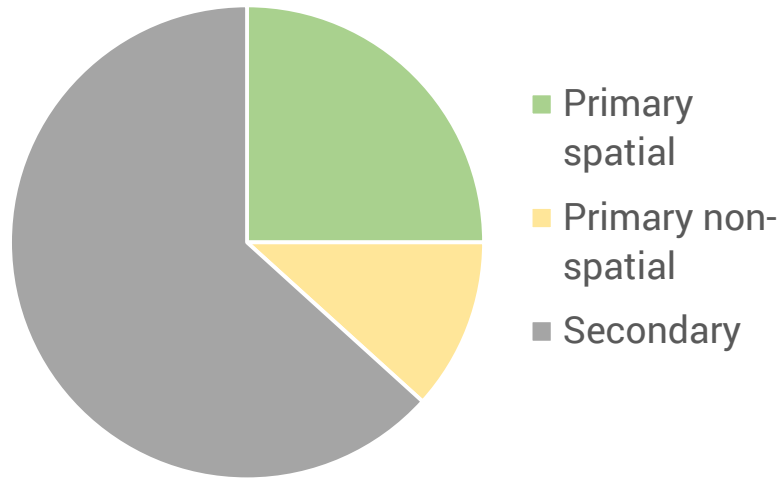


Data sources for each driver of change

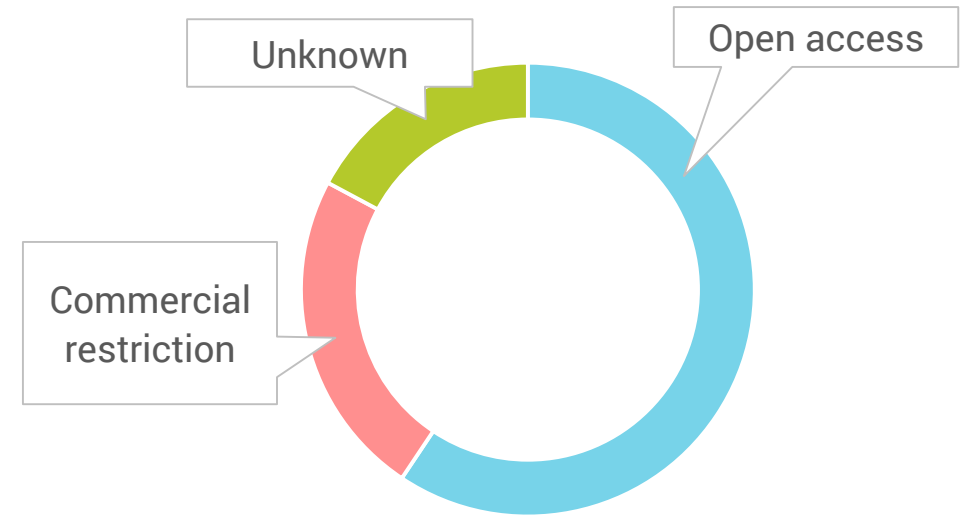


How can the risk be assessed?

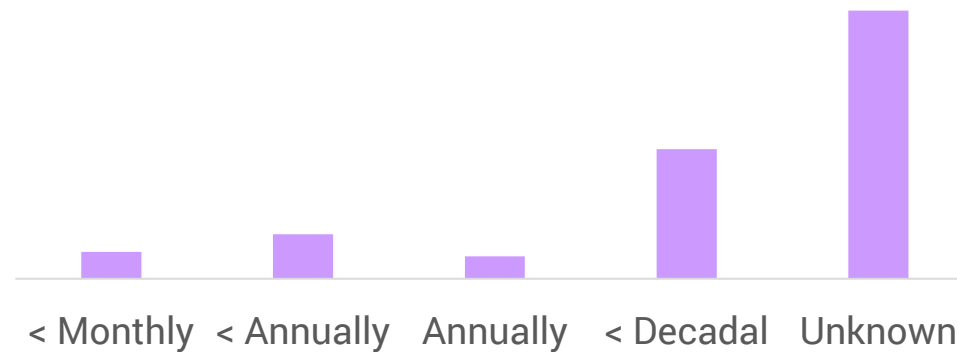
Data type



Data restrictions



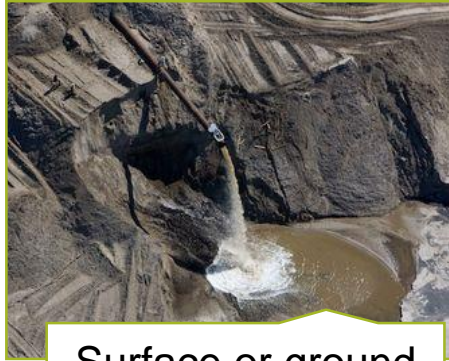
Data update frequency



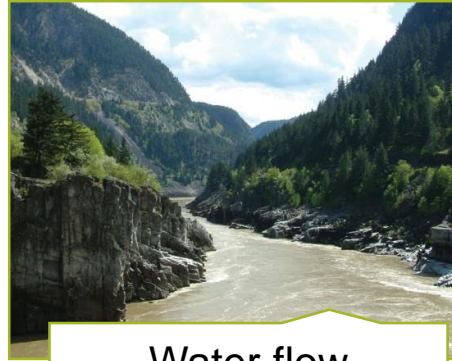


CASE STUDY – EXTRACTIVES

Dependence on ecosystem services



Surface or ground water



Water flow maintenance



Bioremediation and filtration



Chemical condition of waters



Mass stabilisation and erosion control

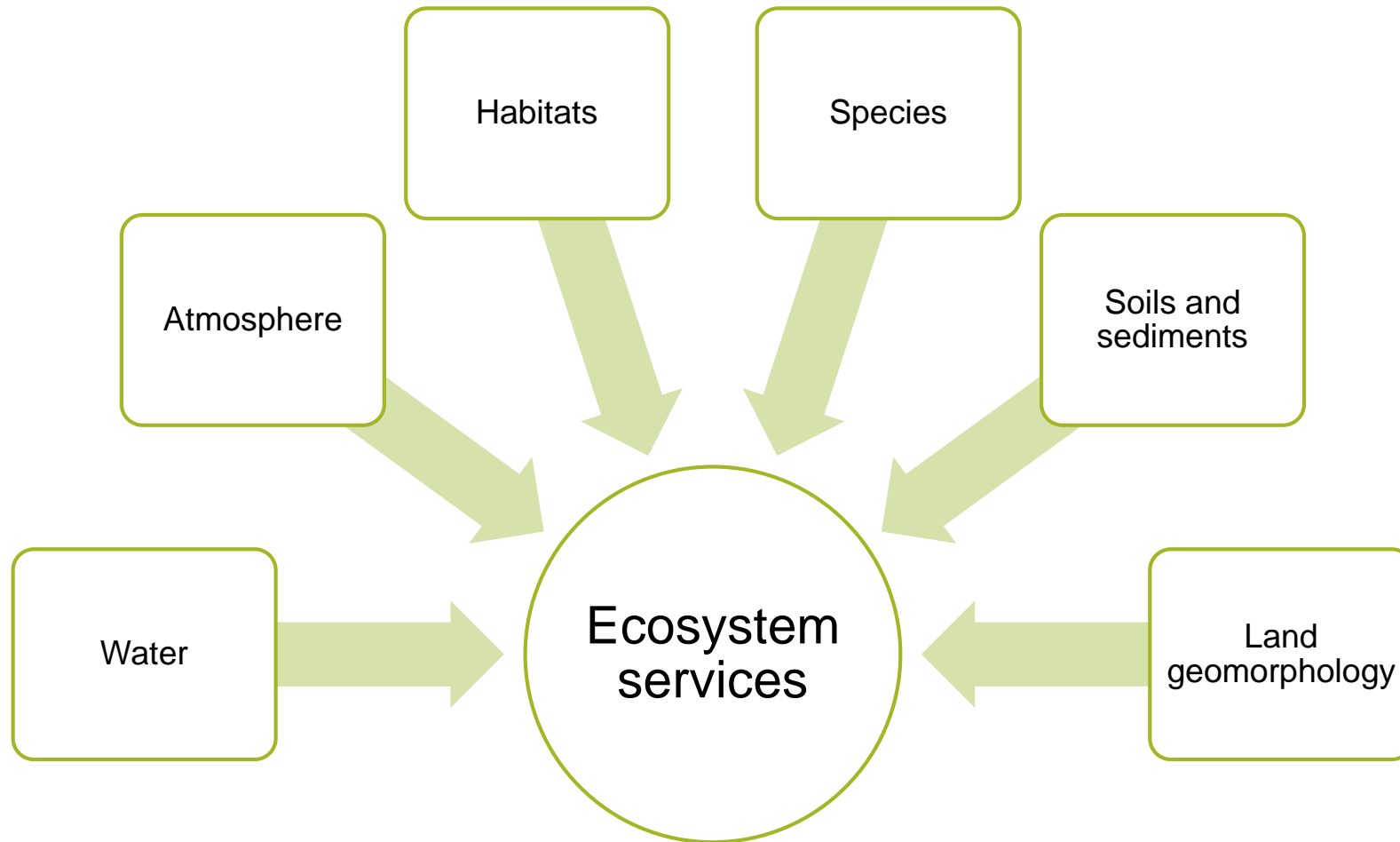


Climate regulation



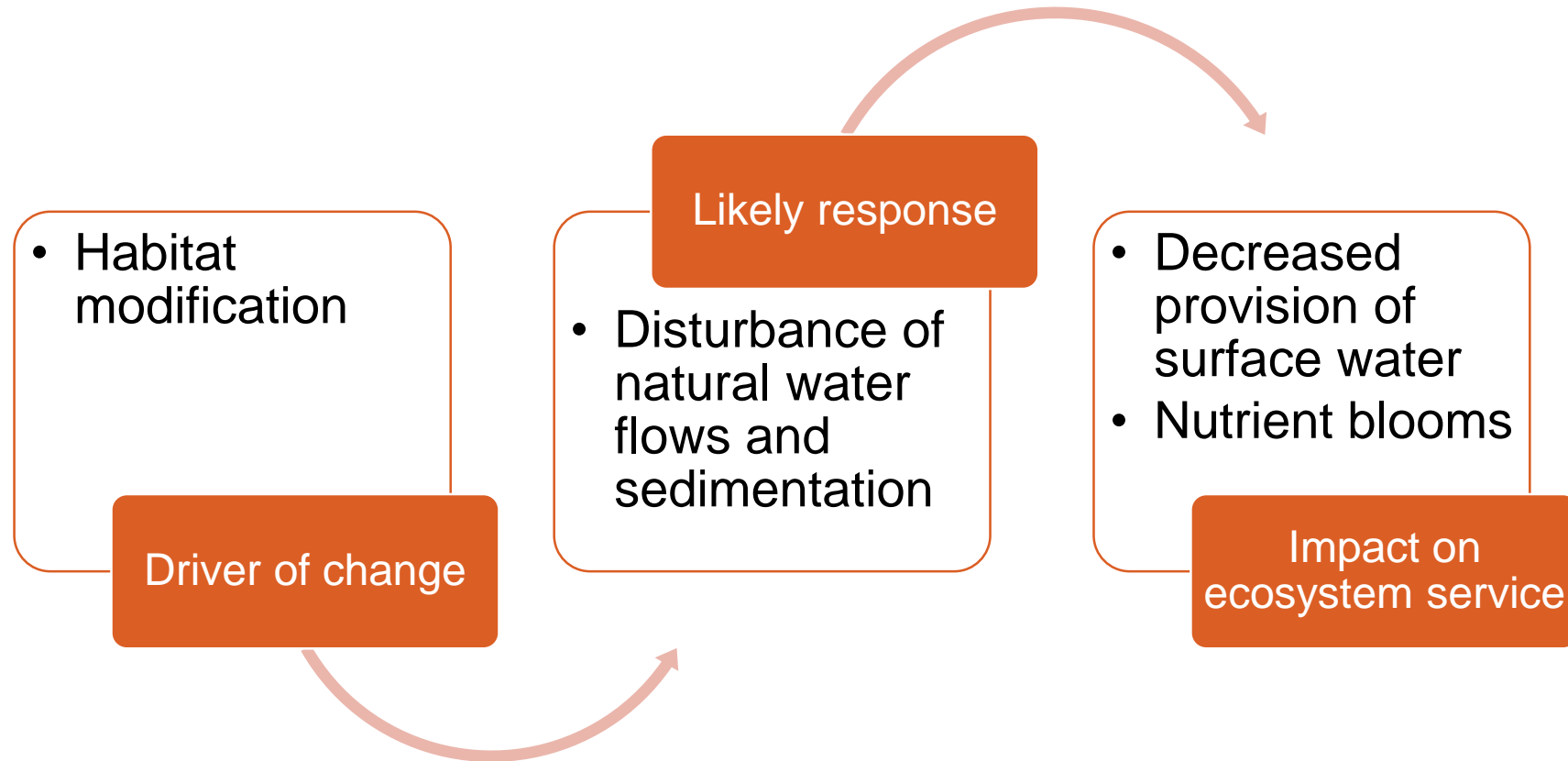
Flood and storm protection

Underpinning natural capital assets

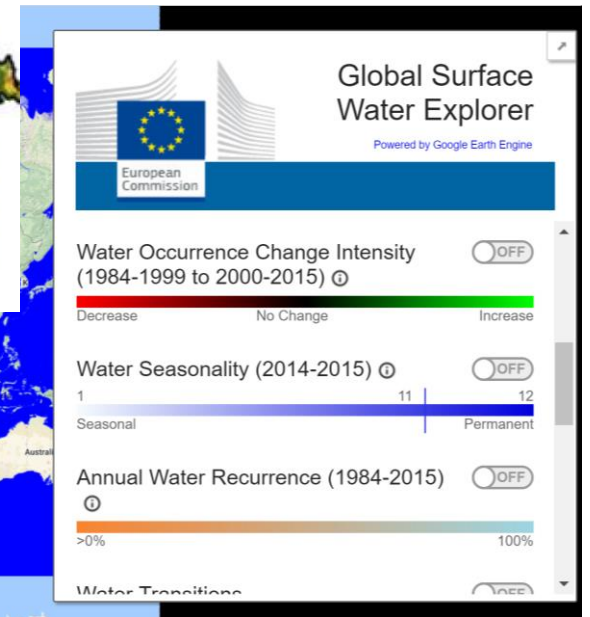
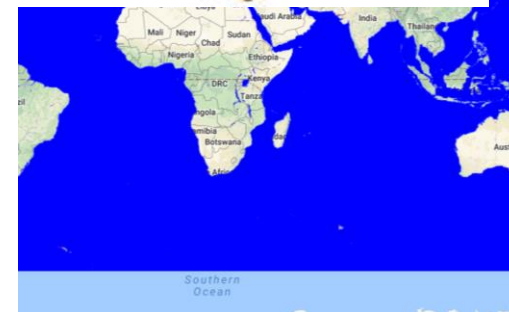
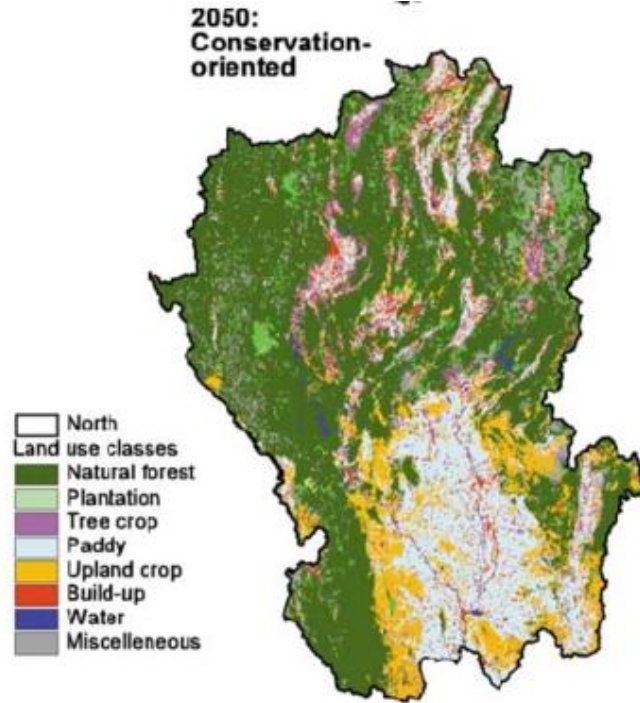
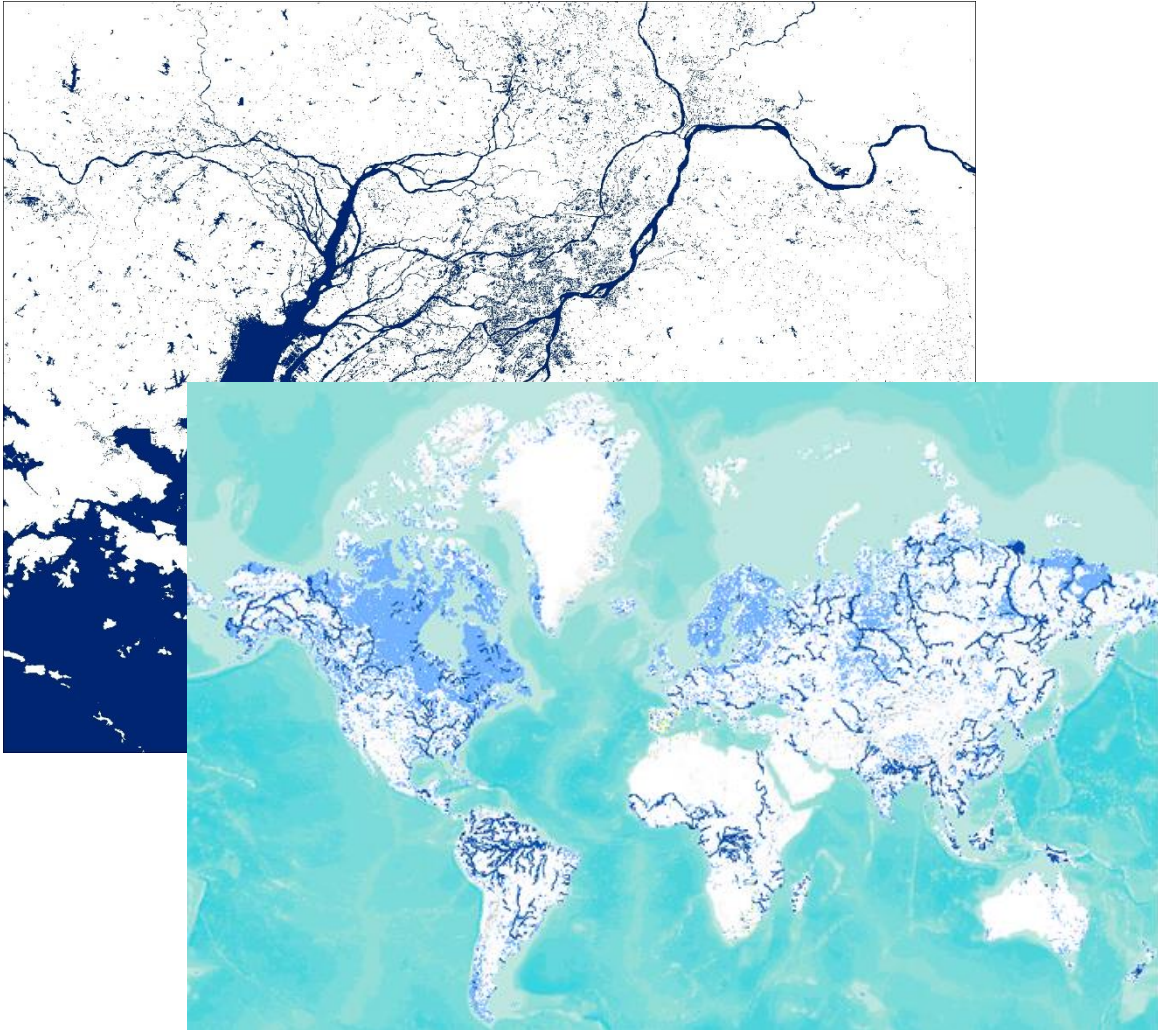


Risk of disruption to surface water provision

e.g.

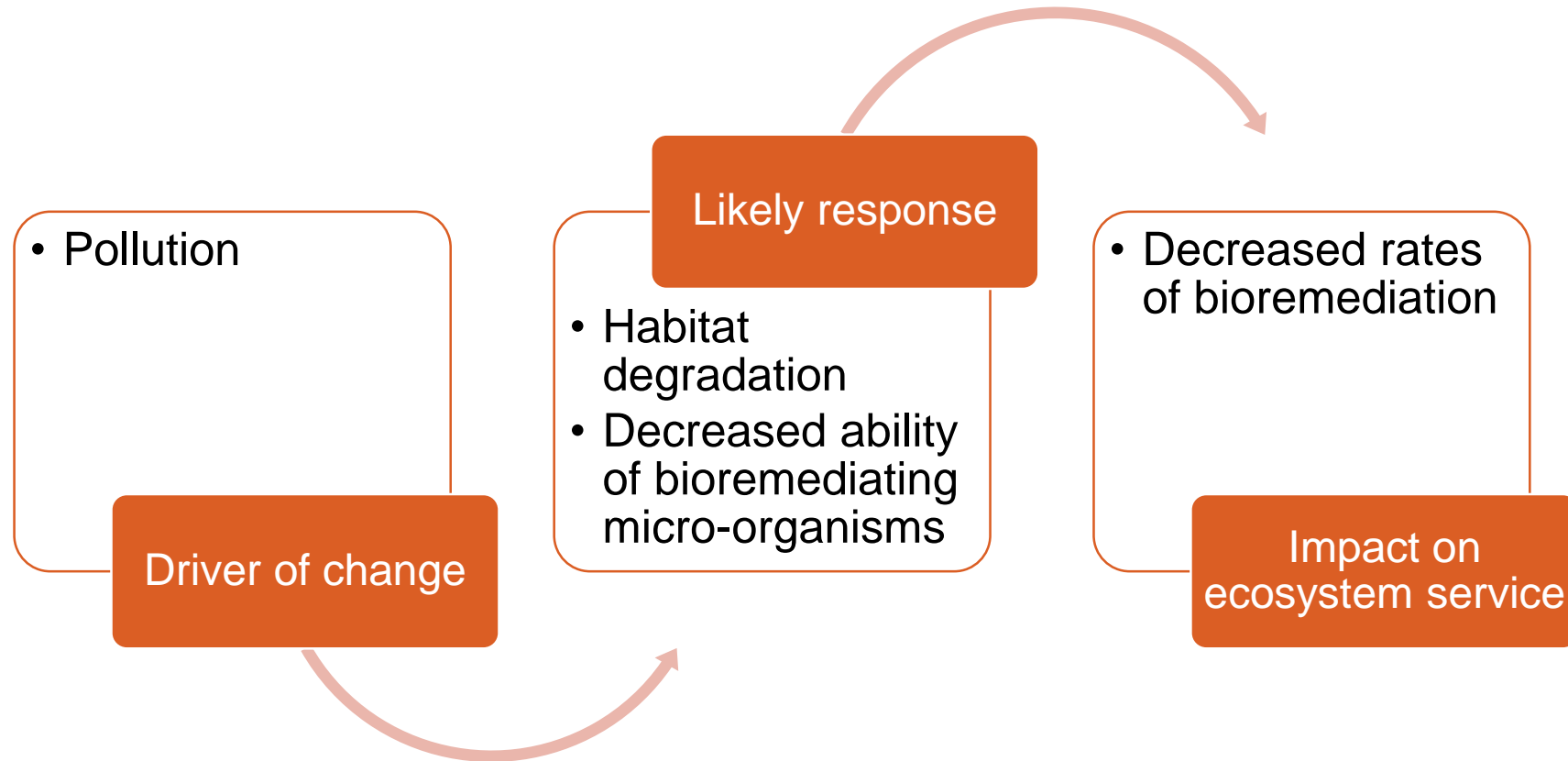


Data to assess current and future exposure to risk



Risk of disruption to bioremediation

e.g.



Data to assess current and future exposure to risk



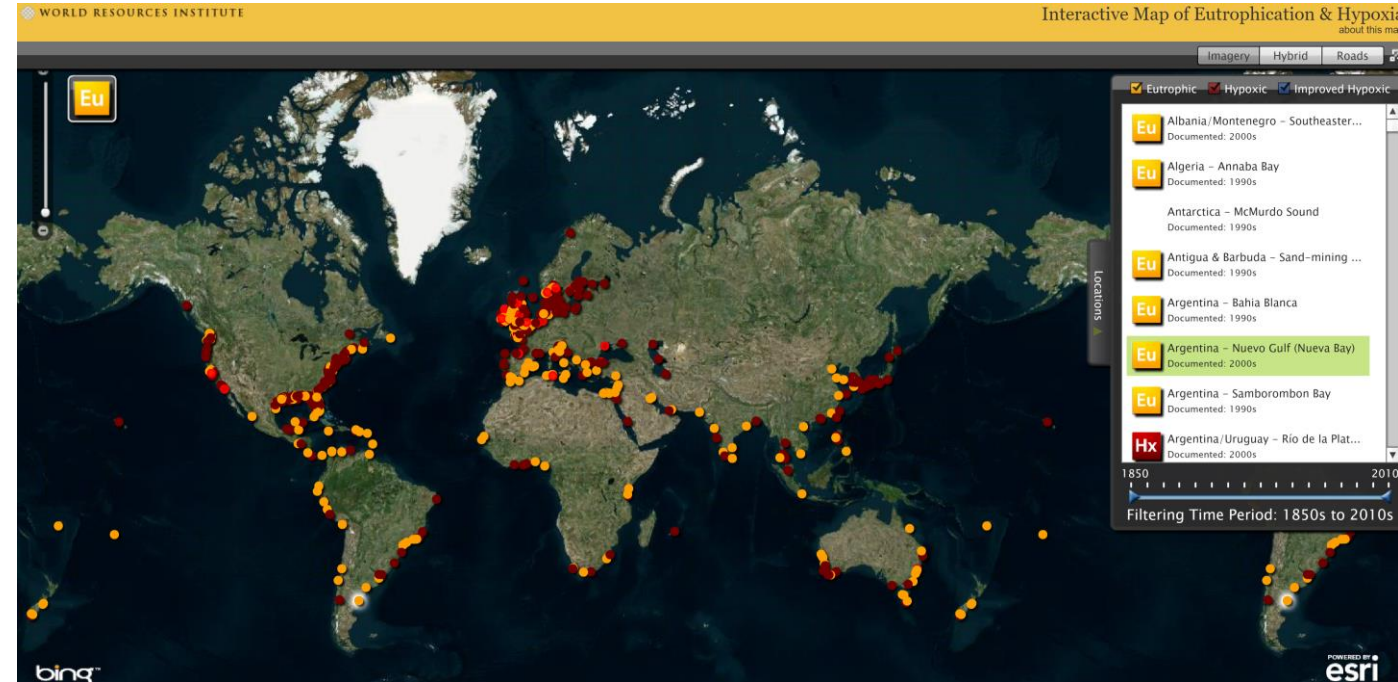
WDCM WFCC-MIRCEN World Data Centre for Microorganisms

HISTORY NEWS WORKSHOP DATABASES RESOURCES CONTACT

“ The WFCC-MIRCEN World Data Centre for Microorganisms (WDCM) was set up as a data center of the World Federation for Culture Collections (WFCC). The WDCM is a vehicle for networking microbial resource centers of various types of microbes. It also serves as an information resource for the customers of the microbial resource centers. ”

DATABASES More

- CCINFO**
Culture Collections Information Worldwide is a database management system for culture collections in the world. [Enter](#)
- Analyzer of Bio-resource Citations**
ABC is a platform that could support the researchers on the citations among papers, patent, genome, nucleotide sequences. [Enter](#)
- Global Catalogue of Microorganisms**
GCM is expected to be a robust, reliable and user-friendly system to help culture collections to manage, disseminate and share the information related to their holdings. [Enter](#)
- Reference Strain Catalogue**
This catalogue was produced to enable broader and easier access to the reference strains listed by the ISO Working Groups. [Enter](#)





NEXT STEPS

Next steps

Natural Capital Risk Explorer tool

- Natural Capital Knowledge Base is a key first step to understanding and assessing business dependence on natural capital
- Outputs will be available via the Natural Capital Risk Explorer tool – due to be released in November 2018

Piloting

- Rapid natural capital assessments for ~ 6 financial institutions in Colombia, Peru and South Africa to apply the Natural Capital Knowledge Base





UN Environment
World Conservation Monitoring Centre

www.unep-wcmc.org
[@unepwcmc](https://twitter.com/unepwcmc)

Katie Leach

katie.leach@unep-wcmc.org



United Nations Environment
World Conservation Monitoring Centre

PROTEUS ANNUAL MEETING

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

