ipbes

Measuring and making visible the values of nature

SPM Section B

#ValuesAssessment

UN environment programme

unesco

Food and Agriculture Organization of the United Nations

UNDP

SPM section B

Values & Valuation

Using Danish illustrations

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Chapter 3 (The potential of valuation)

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VALUATION

A value, to value, valuation ……

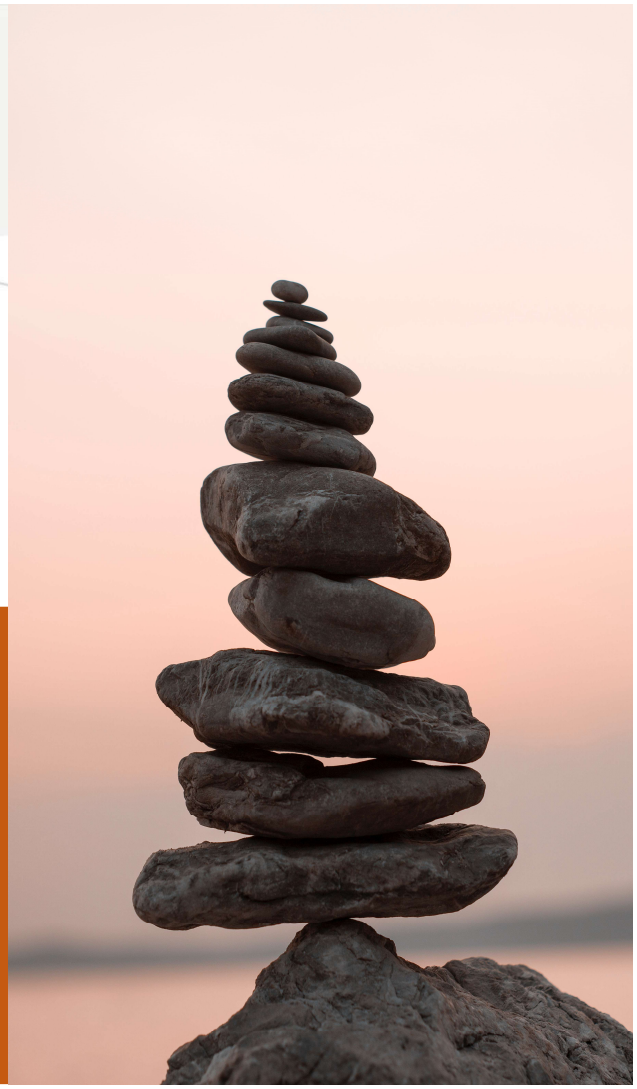
What is valuation ?

Valuation of nature is an intentional activity undertaken to generate information about values of nature and of human-nature relations to make values visible for **decision making**.

Valuation has a purpose

Improve

1) Quality of life, 2) Status of nature 3) Justice



VALUATION

Why is valuation (and methods used) important ?

Questions emerge whenever people give a mandate to somebody to conduct a valuation.

Who is providing this mandate?
What is its scope?
Who is conducting the valuation?
How will the valuation results be used?
Which values are considered?
Whose values are (not) taken into account?

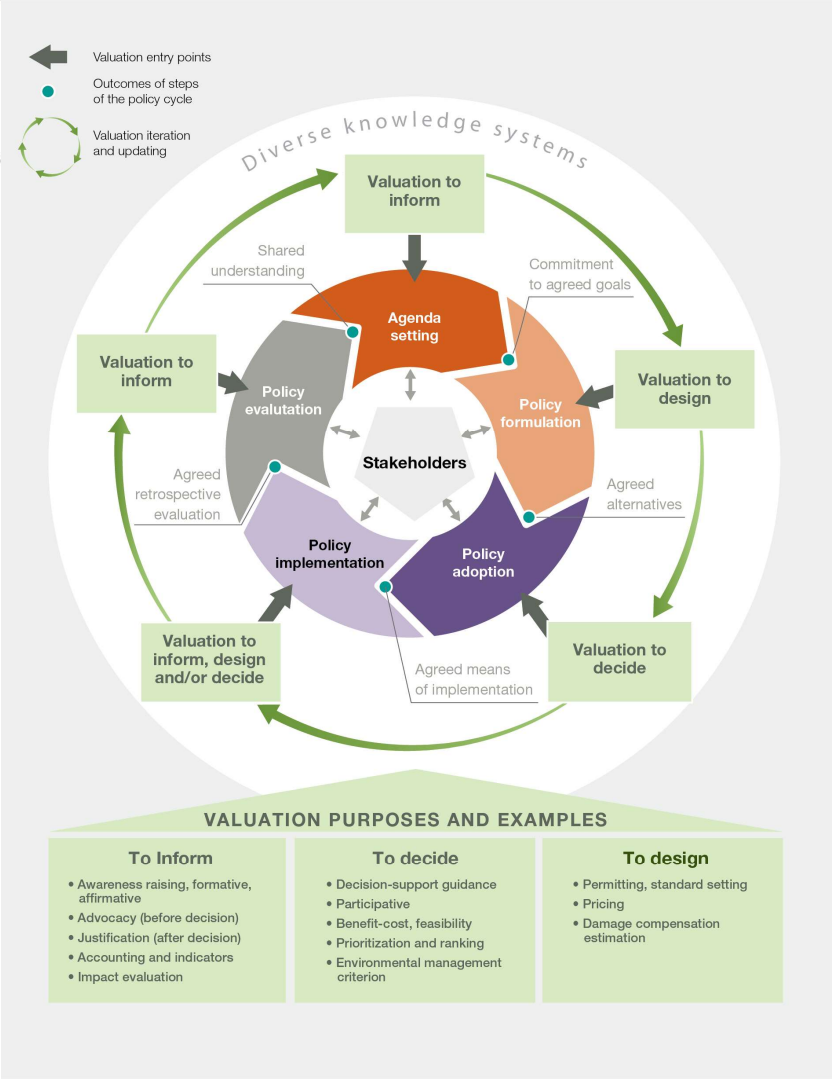
Intertwined with these questions is the choice of appropriate methods

Embedding valuation in decision-making

Valuation at different stages of the

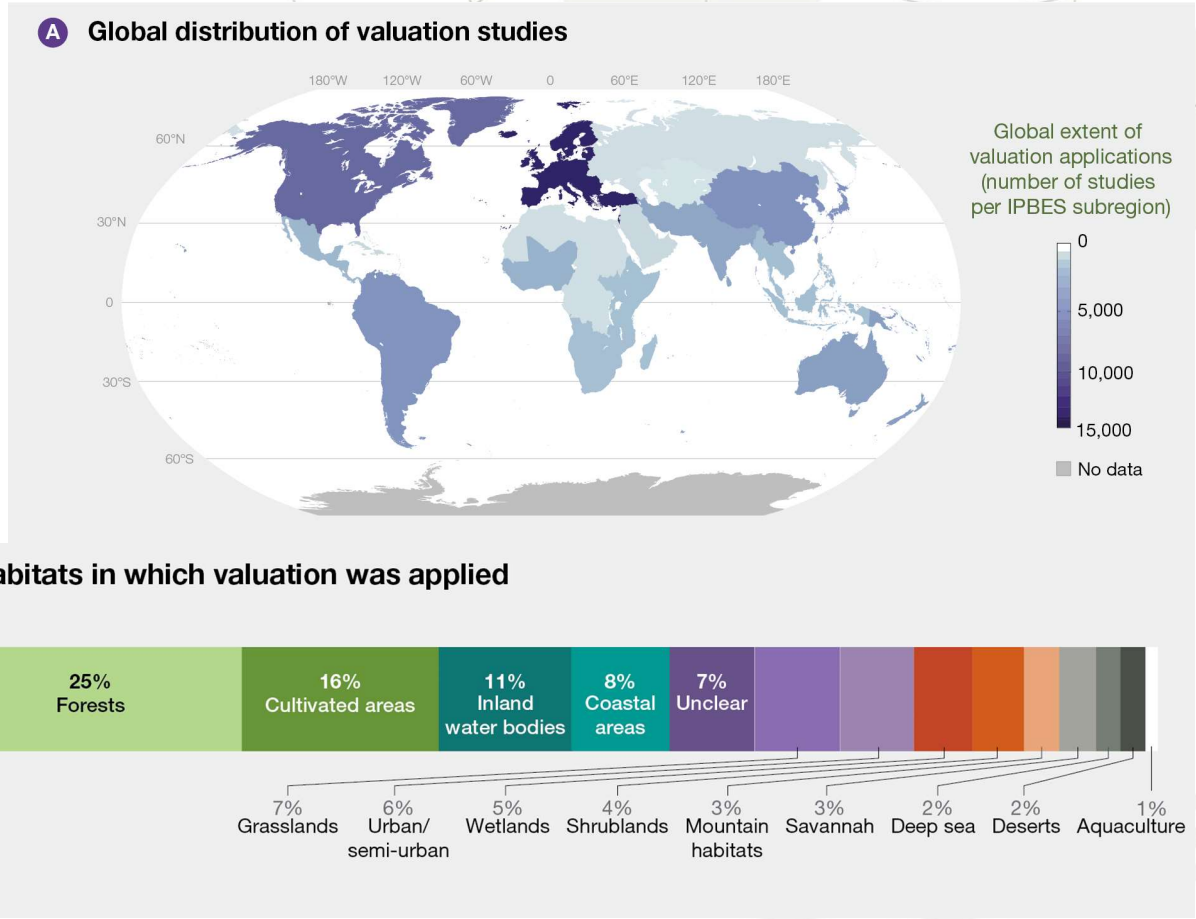
policy cycle

- To **inform**
- To **decide**
- To **design**



Valuation Atlas

Over 50 different methods to assess nature's values have been applied in diverse social-ecological contexts around the world



Assessment of valuation methods

Typology

Needed a valuation typology encompassing how different disciplines and knowledge systems contribute to valuation

Assess

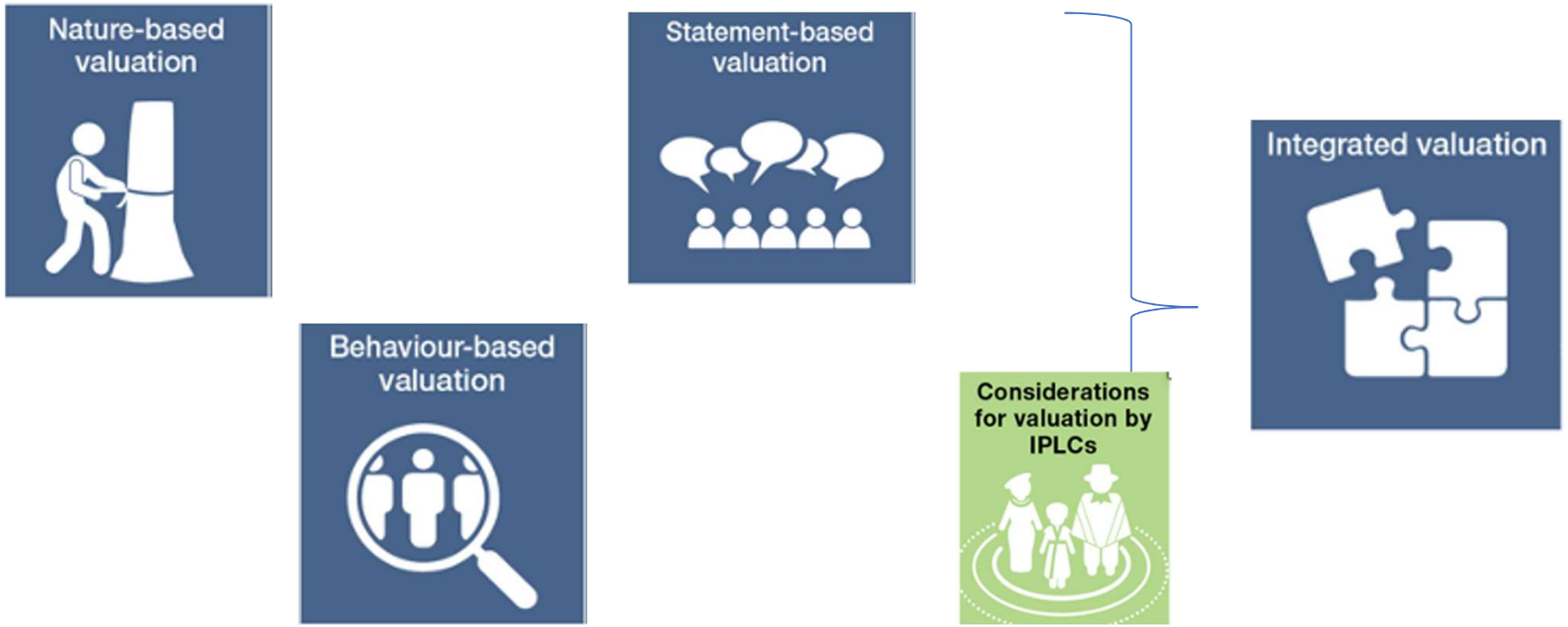
What information about nature's values can methods make visible

Pros & cons for different valuation goals

Pros & cons for different decision-making purposes

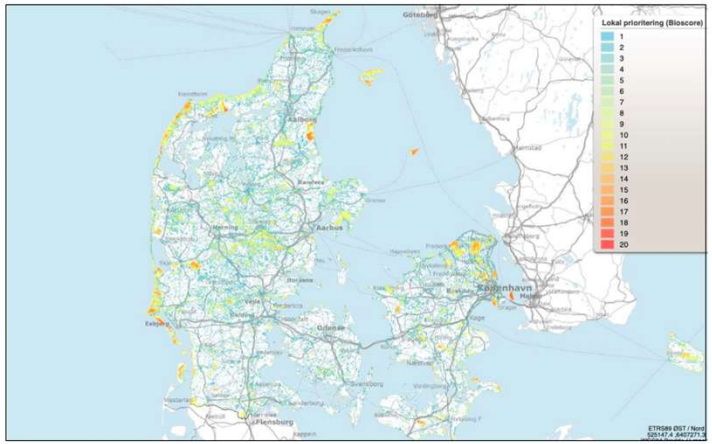
Valuation Methods Families

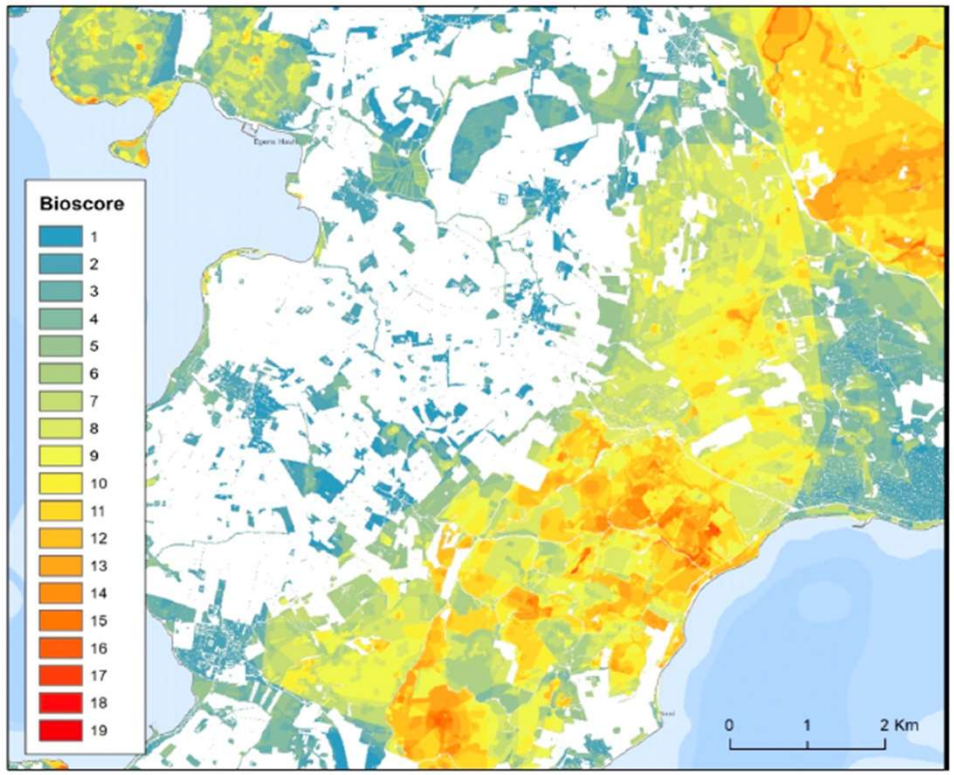
Where do values “come from” – where do the valuator look for information



Biodiversity mapping

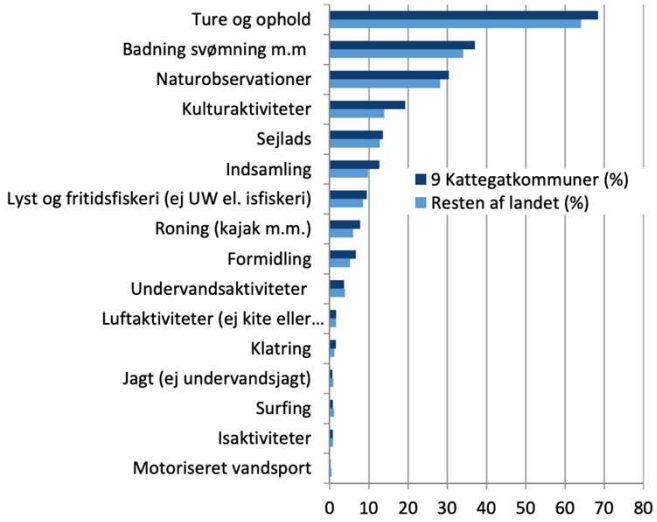
The Bioscore





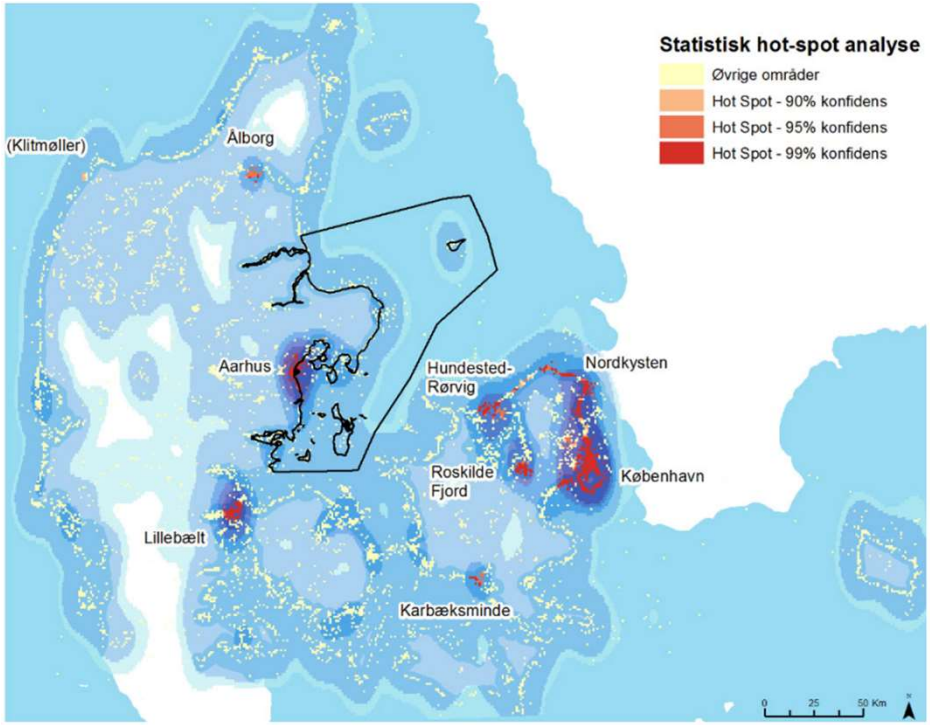
Recreation choice methods

What people do in nature



Kaae, 2020; Kaae et al. 2018

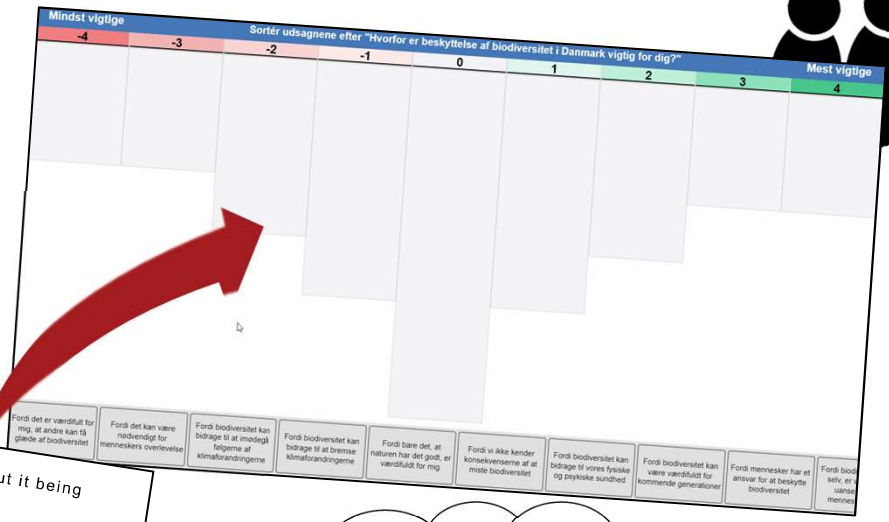
Where the activities take place



Olafsson at al. 2016.

Statement-based valuation

Q-methodology



Protecting biodiversity in Denmark important:

Because the fact that biodiversity exists is valuable to me – even without it being experienced
Because just the fact that nature is well is valuable to me
Because biodiversity, in itself, is valuable - regardless of what we humans think
Because nature, in itself, has a right to exist
Because humans have a responsibility to protect biodiversity
Because it creates a better relationship between people and nature
Because it is important for our Danish culture and identity
Because it may be necessary for human survival
Because biodiversity supports all life on earth
Because biodiversity makes nature a little more enchanting
Because it is important that there are areas where people do not come
Because biodiversity contributes to the production of a lot of products, e.g. food
Because biodiversity can contribute to slowing down climate change
Because biodiversity can contribute to countering the consequences of climate change
Because biodiversity can contribute to our physical and mental health
Because we do not know the consequences of losing biodiversity
Because biodiversity can improve nature's ability to resist and adapt to change
Because we do not know what biodiversity can contribute with the future
Because we should be able to enjoy/benefit from biodiversity in the future
Because biodiversity increases the joy of experiencing nature
Because biodiversity gives us nature experiences we could not otherwise have
Because biodiversity makes the landscape more beautiful to look at
Because biodiversity can contribute to us seeing more plant and animal species
Because biodiversity can be valuable for future generations
Because future generations should have the same opportunities that we have had
Because it is valuable to me that others can benefit from biodiversity
Because biodiversity can be valuable to other people
Because the fact that we try to do something for nature is valuable in itself

Biodiversity is ...

Differences
Naturalness
Interaction
Species
Conservation

Natual processes
Moral duty
Insurance
Recreation

... and it is important because...

GREEN BNP measure

Jette Bredahl's Talk

Integrated modelling for Biodiversity and Ecosystem Services

Berit Hasler's Talk

Analysed each of the method families

- What is assessed?
- Methods “belonging” to the family
- How is information about values generated
- What value types are elicited
- How are stakeholder included
- Valuation “products” for decision making
- Limitations

	Valuation method families				Considerations for valuation by IPLCs
	Nature-based valuation	Statement-based valuation	Behaviour-based valuation	Integrated valuation	
What is assessed? What is the source of information	Nature, physical or ecological components of nature and nature's contributions to people	What people say or express when asked about the importance of nature and nature's contributions to people	What people do in nature, for nature, with nature, to nature or nature's contributions to people	Different outputs from one or more methods to support decision-making	Indigenous peoples and local communities gauge nature and its interdependencies with people by also gathering information from ancestors, future generations, non-human beings, the cosmos and the spiritual world. Information gathering through territory patrols, natural resources monitoring or communal assemblies can entail rituals and ceremonies undertaken by specialized traditional experts. Valuation is often a collective process that considers all members of a community (including children or those who are not visibly present), as legitimate generators of information. Understanding the richness and depth of indigenous peoples' and local communities' valuation approaches implies deconstructing disciplinary definitions of methods and concepts such as 'evidence' and recognizing that integration of knowledge systems is not always possible, desirable or necessary.
Examples of methods and approaches	Biodiversity inventory, ecosystem services mapping, Delphi method, participatory mapping of ecological values	Group discussions, Q-methodology, contingent valuation, choice experiments, deliberative methods	Participant observation, travel cost method, cost-based methods, hedonic pricing,livelihood dependence, photo-series analysis	Ecosystem service valuation, cost-benefit analysis, multi-criteria decision analysis, integrated modelling, scenario building, deliberative decision methods	
How is information about values generated?	Directly measuring nature, remote sensing, consulting experts Consulting users/ experts/local communities as knowledge holders	Asking questions to people (interviews, surveys), undertaking activities with people (e.g., discussions, games, art), analyzing narratives (e.g., twitter posts)	Observing people, assessing records of people's behaviors (e.g., park visits, house purchases), assessing records of policy choices, assessing (non-) market exchanges	Synthesising, comparing, contrasting, deliberating, consolidating or aggregating multiple values for decision making or decision support	
'Specific values' elicited and examples of value indicators	Mainly intrinsic and instrumental values Species counts, carbon stored, ecological health indicators	Instrumental, intrinsic and relational values Subjective well-being indicators, narratives of human-nature relationships, willingness to accept compensation for setting aside land, willingness to pay for access to nature	Mostly instrumental values Time spent, share of household income, prevalence of disease, price on a hectare of land, use of indigenous plants	Instrumental, intrinsic and relational values Strength of support or objections to policy options, welfare gains or losses from projects of indigenous plants	
Type of stakeholder inclusion	Inclusive methods exist (e.g., community monitoring of biodiversity) but most methods do not include stakeholders	All methods include stakeholders to some extent (e.g., surveys) and inclusion is often integral to the methodology (e.g., deliberative valuation)	Most methods have limited or no stakeholder inclusion (e.g., analysis of market accounts), but encompass observations of diverse stakeholders	Some methods can be non-inclusive (e.g., desktop multi-criteria decision analysis) but often, inclusion is key to the decision support aspect (e.g., participatory scenario building)	
Examples of typical valuation 'products'	Biodiversity indices, maps of pri–ority areas for policy/ management action Improved understanding of the importance of components of nature	Ranked importance of nature's contributions to people Monetary value for protection of areas of biodiversity significance Explanations for why people value nature	Ranked importance of nature and nature's contributions to people Additional costs due to degradation (e.g., changes in time to collect fuelwood) Explanations for how people value nature	Ranked policy options Evaluation of socio-economic and environmental impacts of policy options Improved understanding of conflicts/shared values of nature	
Limitations	Impact on people assumed but not assessed Dependence of nature is not assessed by those directly living from, living as and living with nature	Potential large variability in the reliability of statements (i.e., do people respond truthfully?) Power disparity can reduce the validity of group-based (e.g., deliberative) methods Representativeness in selection of respondents biases results	Requires conceptual and empirical understanding of the relationships between behavior, nature and its contribution to well-being Cannot reveal in-depth understanding of motivations behind behaviour	Aggregation of values across groups of people can reduce representation of values, combining multiple value types creates incommensurability concerns	

What are the limitations?

	Valuation method families			
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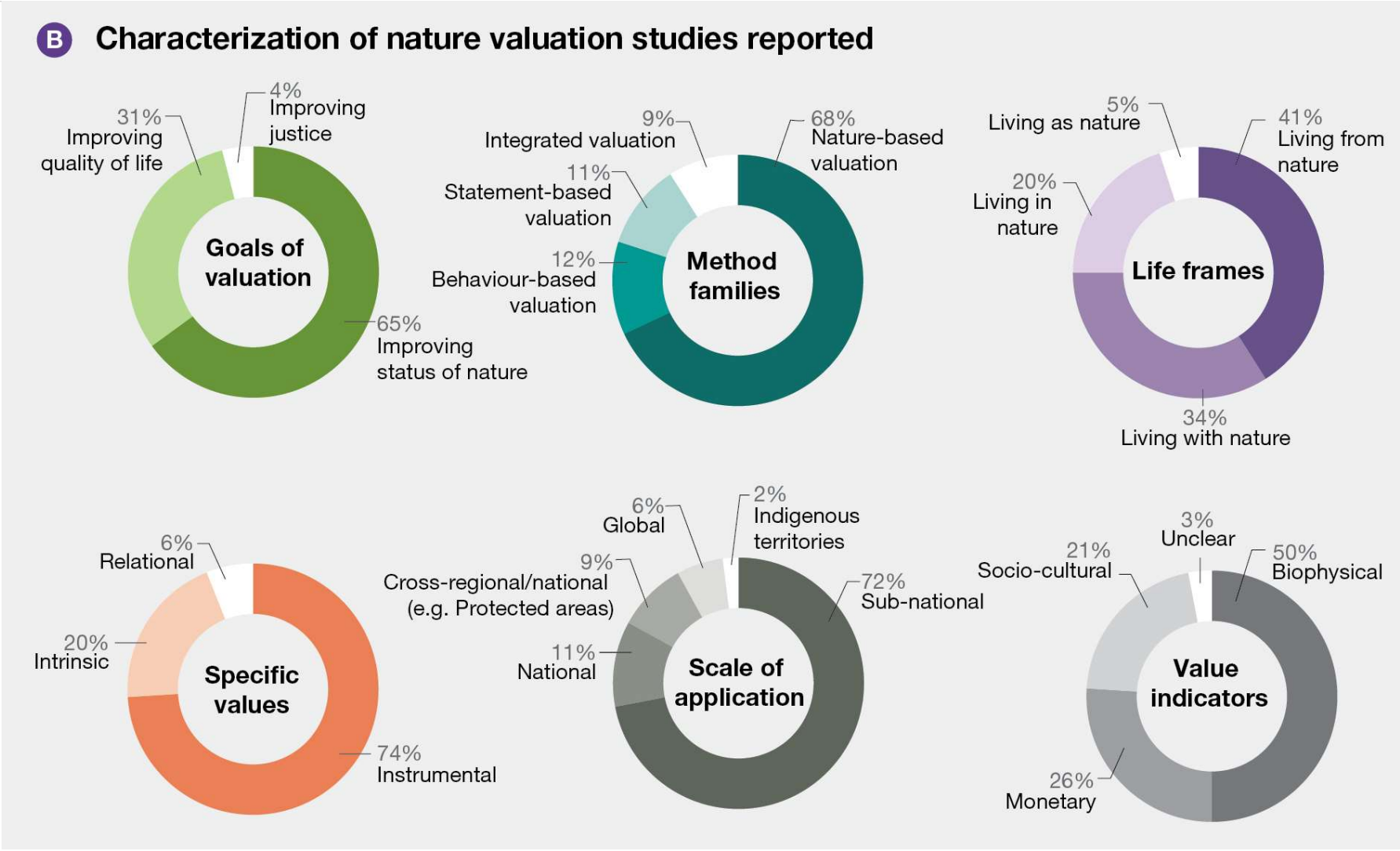
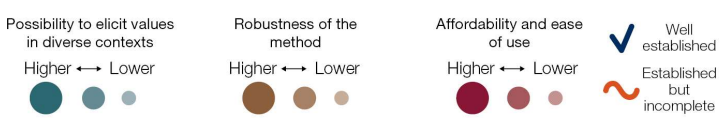
Assessment Results



Assessment Results

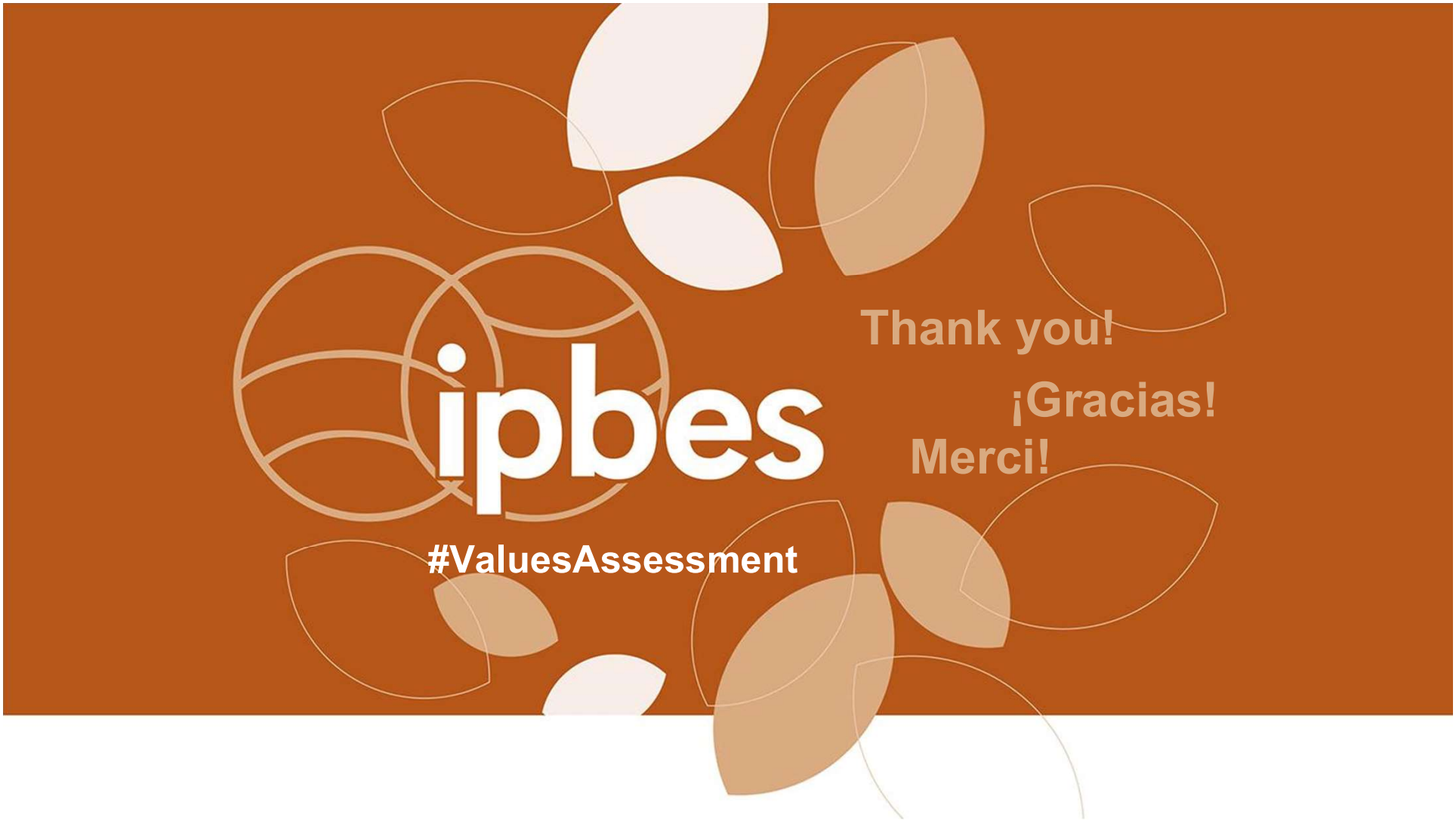
Trade-offs in methods choice

Choosing appropriate valuation methods involves identifying their comparative strengths and weaknesses, particularly by taking into account their **relevance**, **robustness** and **resource requirements**.



A Valuation methods

Examples of valuation methods		Relevance: Ability to elicit of diverse values in multiple socio-ecological contexts — Diverse values	Relevance — Diverse contexts	Robustness: Ability to ensure reliable (accurate and valid) and fair representation of stakeholders — Reliability	Robustness — Representation	Resources: Affordability and ease of use — Ease of implementation	Resources — Ease of operation	Level of confidence
Nature based valuation	Ecosystem services mapping							✓
	Biodiversity mapping							✓
Statement based valuation	Stated preferences							✓
	Q method							≈
Behaviour based valuation	Revealed preference							✓
	Livelihood assessment							✓
Integrated valuation	Integrated modelling							≈
	Participatory mapping							✓
Decision making tools based on integration of values	Cost-benefit analysis							✓
	Multi-criteria decision aid							✓
	Deliberative integration methods							≈
Methods that do not elicit value information	Benefit transfer							≈
Examples from valuation by indigenous peoples and local communities	Forest health monitoring (forest walks, territory patrols)	Capable individuals (i.e.,human resources to conduct validation) are entrusted (i.e., assurance of robustness) to assess forest recovery using communally accepted indicators relevant for multiple uses by the community (i.e., representation and diverse values).						✓
	Community assemblies for deliberations	Community meetings to gather all members' opinions (including women's and children's) about nature (i.e., representation/robustness, relevance) and to jointly interpret the opinions and deliberate on how to move forward (i.e., capacities to conduct valuation). Community members are trusted to speak based on their knowledge and lived experiences (i.e., reliability).						✓


ipbes
Thank you!
¡Gracias!
Merci!
#ValuesAssessment