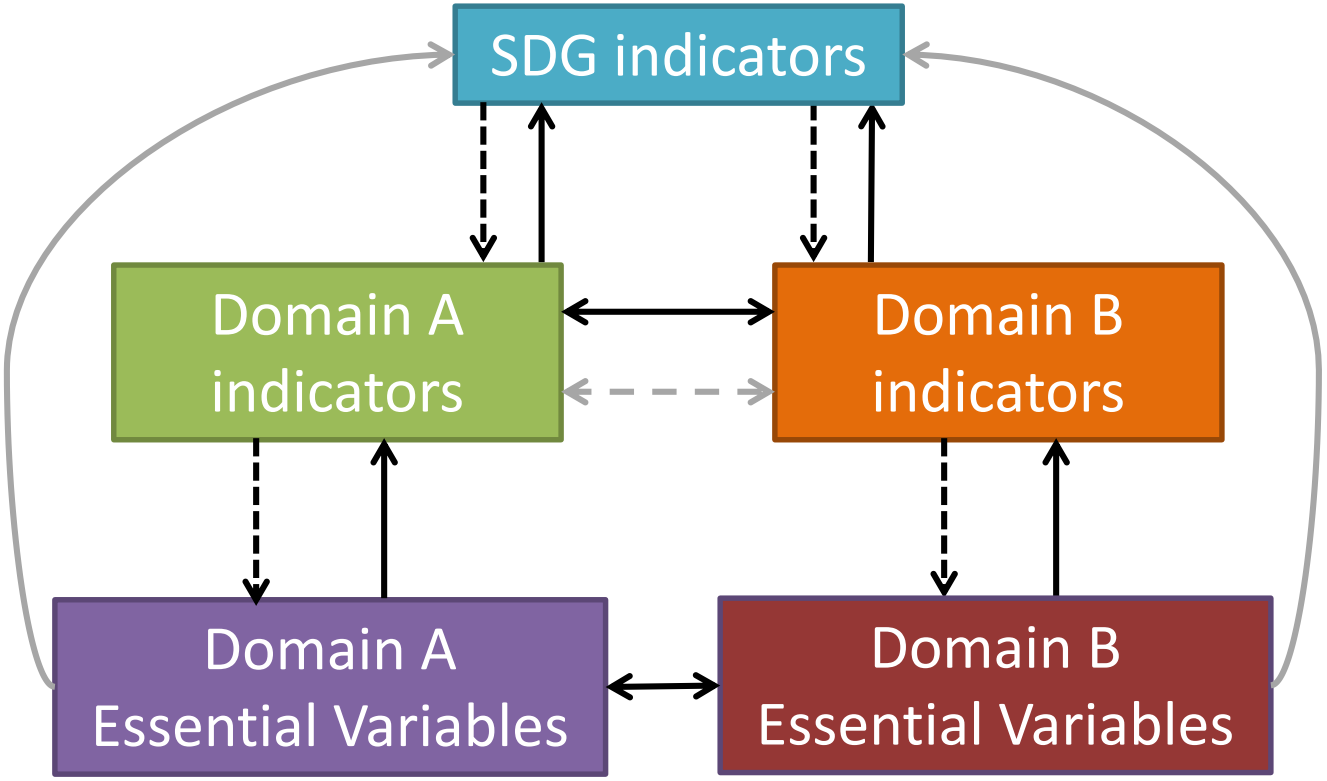
Exploring linkages between policy indicators for biodiversity and ecosystem services, sustainable development goals and essential biodiversity variables

André Mascarenhas, Jonas Geschke, Katrin Vohland, Christoph Häuser

Background

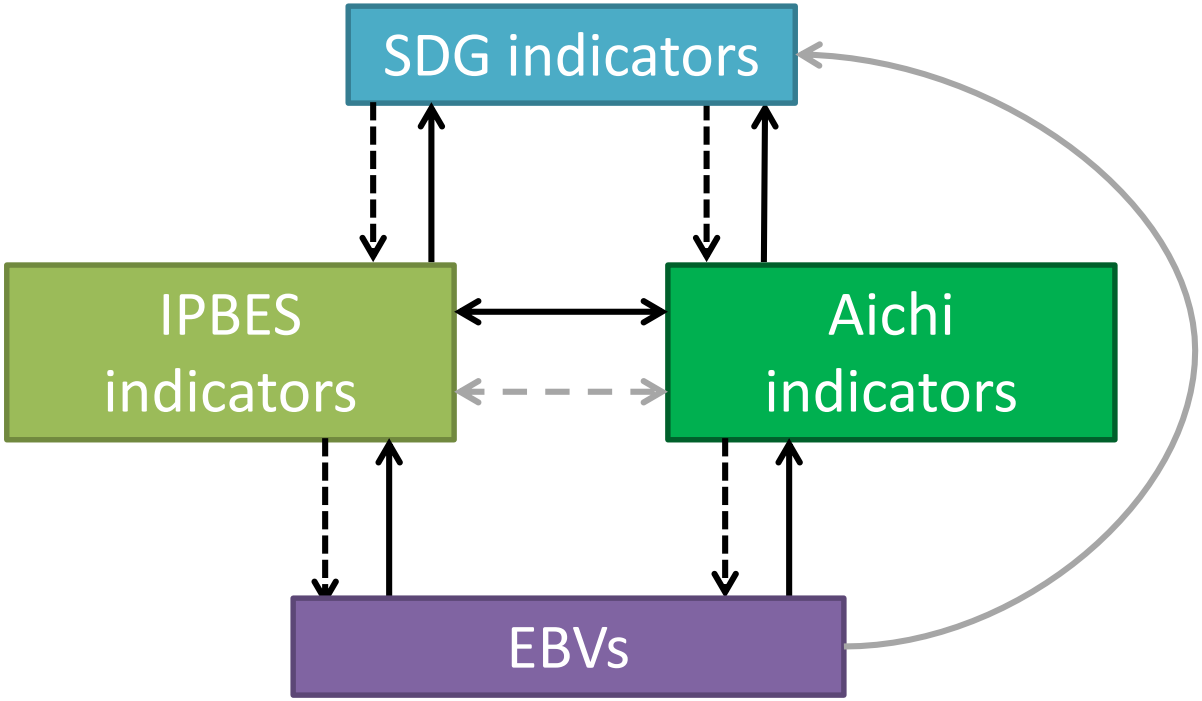


Legend:

Requirements

Information

Background



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Requirements

Information

Background

- 17 SDGs
  → 232 indicators (14 for SDG15 – Life on Earth)

- CBD Strategic Plan for Biodiversity 2011-2020 & Aichi Biodiversity Targets
  → 79 generic indicators / 147 specific indicators

- IPBES
  → 30 core indicators

Background

2030 Agenda for Sustainable Development

48. Indicators are being developed to assist this work. Quality, accessible, timely and reliable disaggregated data will be needed to help with the measurement of progress and to ensure that no one is left behind. Such data is key to decision-making. Data and information from existing reporting mechanisms should be used where possible. We agree to intensify our efforts to strengthen statistical capacities in developing countries, particularly African countries, least developed countries, landlocked developing countries, small island developing States and middle-income countries. We are committed to developing broader measures of progress to complement gross domestic product.

82. The high-level political forum will have a central role in overseeing a network of follow-up and review processes at the global level, working coherently with the General Assembly, the Economic and Social Council and other relevant organs and forums, in accordance with existing mandates. It will facilitate sharing of experiences, including successes, challenges and lessons learned, and provide political leadership, guidance and recommendations for follow-up. It will promote system-wide coherence and coordination of sustainable development policies. It should ensure that the Agenda remains relevant and ambitious and should focus on the assessment of progress, achievements and challenges faced by developed and developing countries as well as new and emerging issues. Effective linkages will be made with the follow-up and review arrangements of all relevant United Nations conferences and processes, including on least developed countries, small island developing States and landlocked developing countries.

Background

DECISION ADOPTED BY THE CONFERENCE OF THE PARTIES TO THE CONVENTION ON BIOLOGICAL DIVERSITY

XIII/28. Indicators for the Strategic Plan for Biodiversity 2011-2020 and the Aichi Biodiversity Targets

6. *Notes* that indicators may be used for a variety of purposes at the national, regional and global levels, including:

(c) Mainstreaming the Aichi Biodiversity Targets within other international processes, including, in particular, the Sustainable Development Goals, by facilitating the integration of biodiversity in other processes through shared indicators or aggregated or disaggregated elements of indicators;

9. *Emphasizes* the advantages of aligning the indicators for the Strategic Plan for Biodiversity 2011-2020 and those of the Sustainable Development Goals and other relevant processes, to further support the achievement of the three objectives of the Convention, avoiding duplication of data sets and approaches, *notes* that shared indicators must be reviewed to determine the degree to which they are suitable for each use, and *stresses* the role of the Biodiversity Indicators Partnership in this regard;

12. *Invites* the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services and, in particular, its Knowledge, Information and Data Task Force and its regional and global assessments to contribute to and make the best use of biodiversity indicators, including through the Biodiversity Indicators Partnership, for the regional and global assessments in order to maximize synergy, ensure relevance to policy and reduce the multiplicity of global indicators;

Background

But...

- Linkages between indicators for SDGs, IPBES, CBD and EBVs remains largely unexplored
- There is no “map” clearly showing how are these sets of indicators/variables linked
- Potential role of network analysis poorly explored

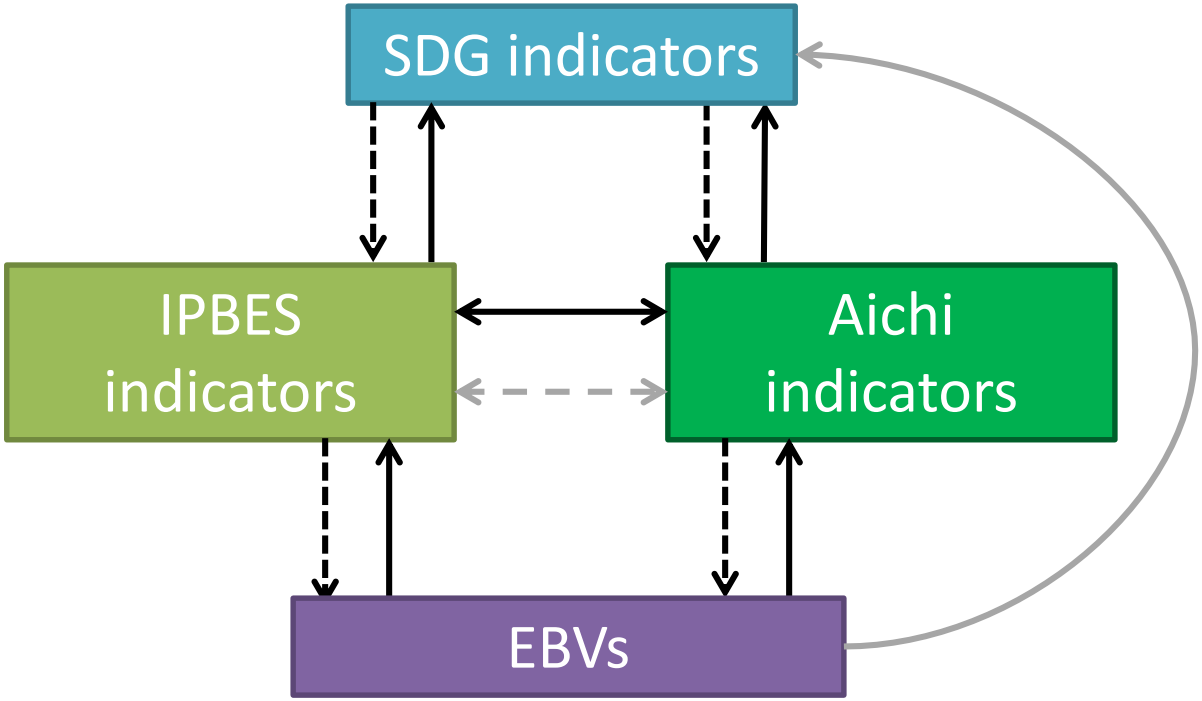
Goal

To gain a better understanding

of the **linkages** between indicators

for SDGs, IPBES, CBD (Aichi Targets) and EBVs

Methodological approach



Legend:

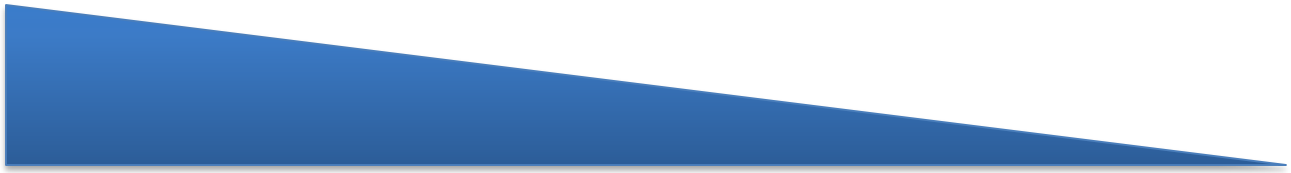
Requirements

Information

Methodological approach

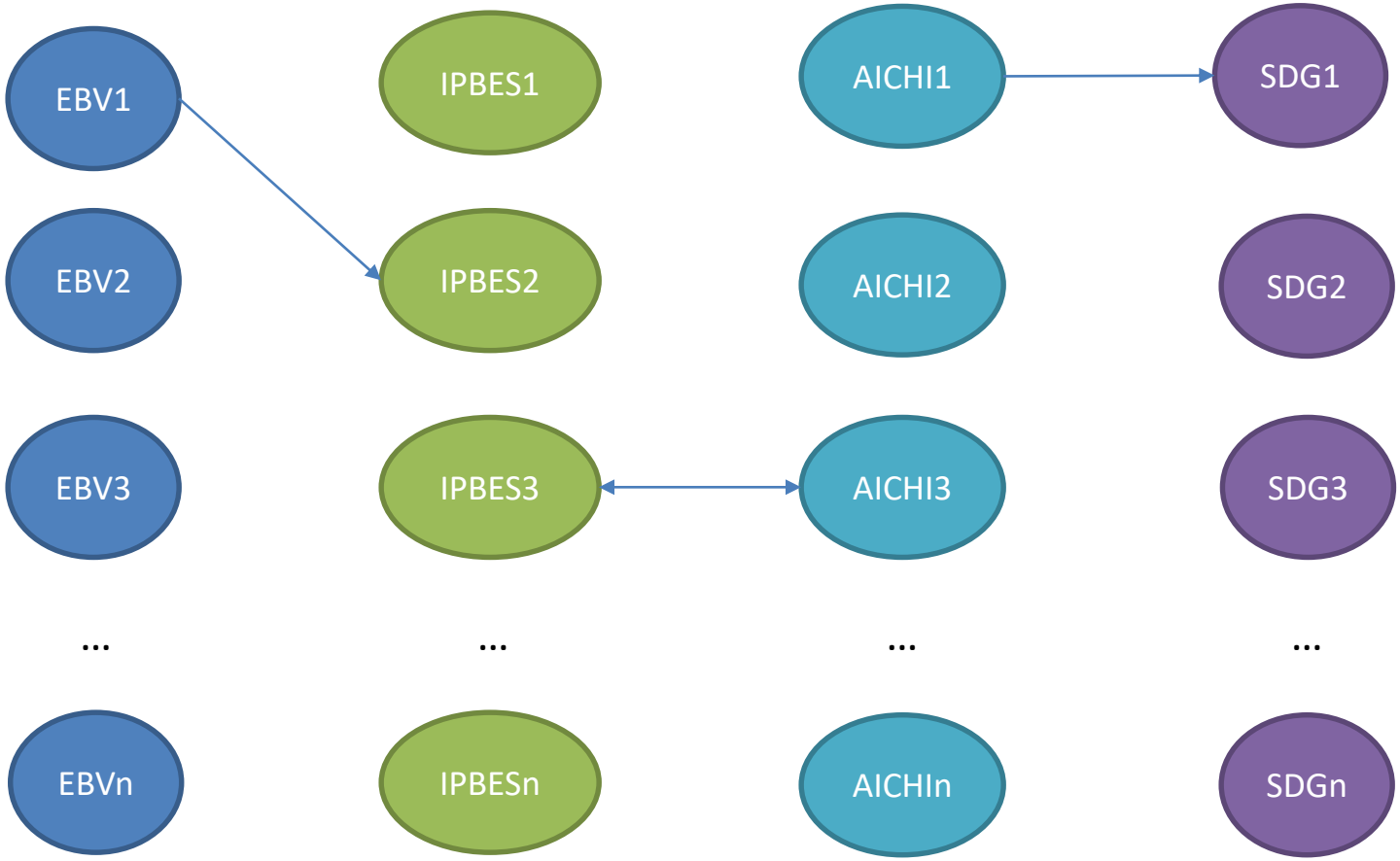
Potential (information) links

A	B	C	D	E	F



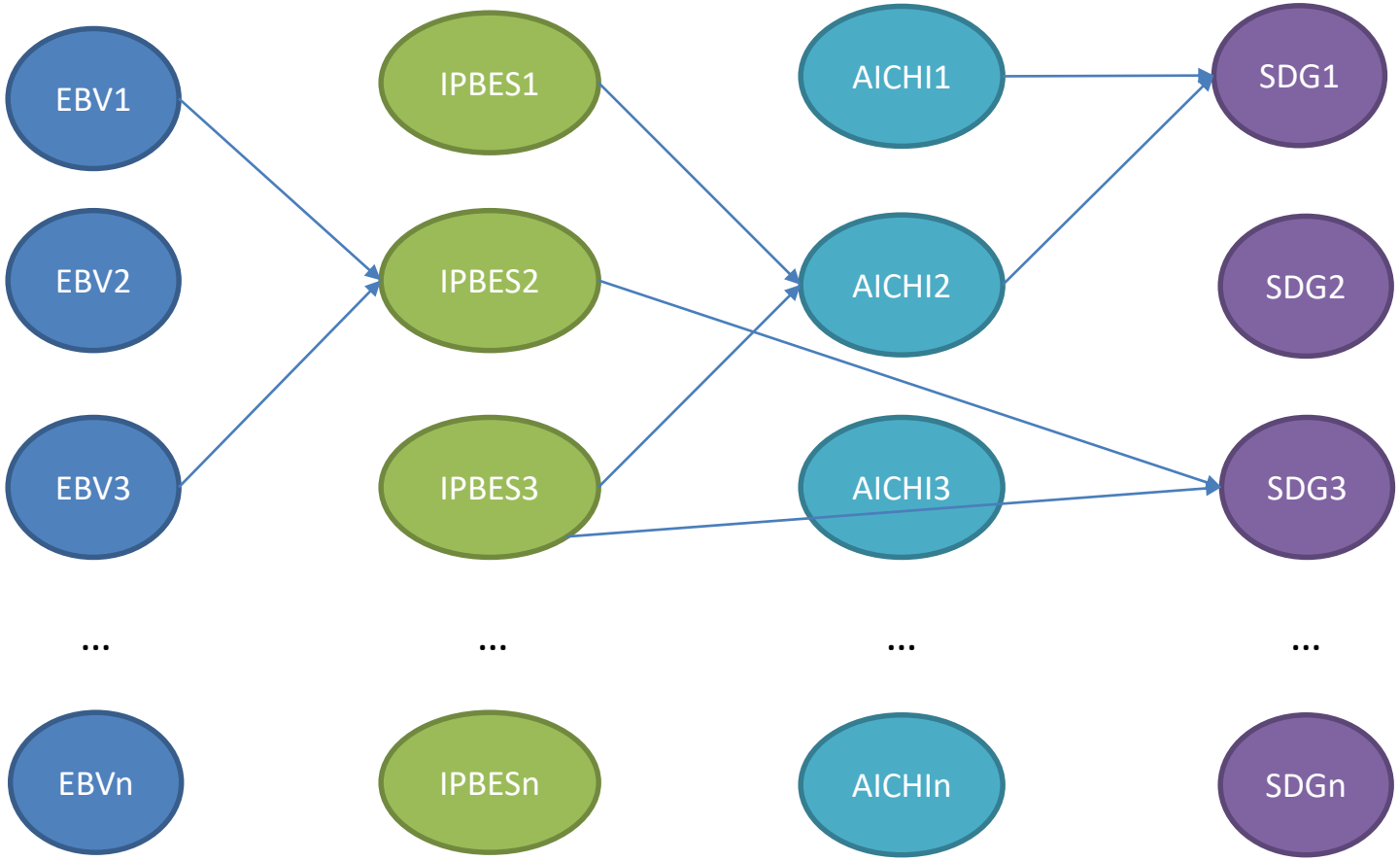
"Strength" of link

Methodological approach



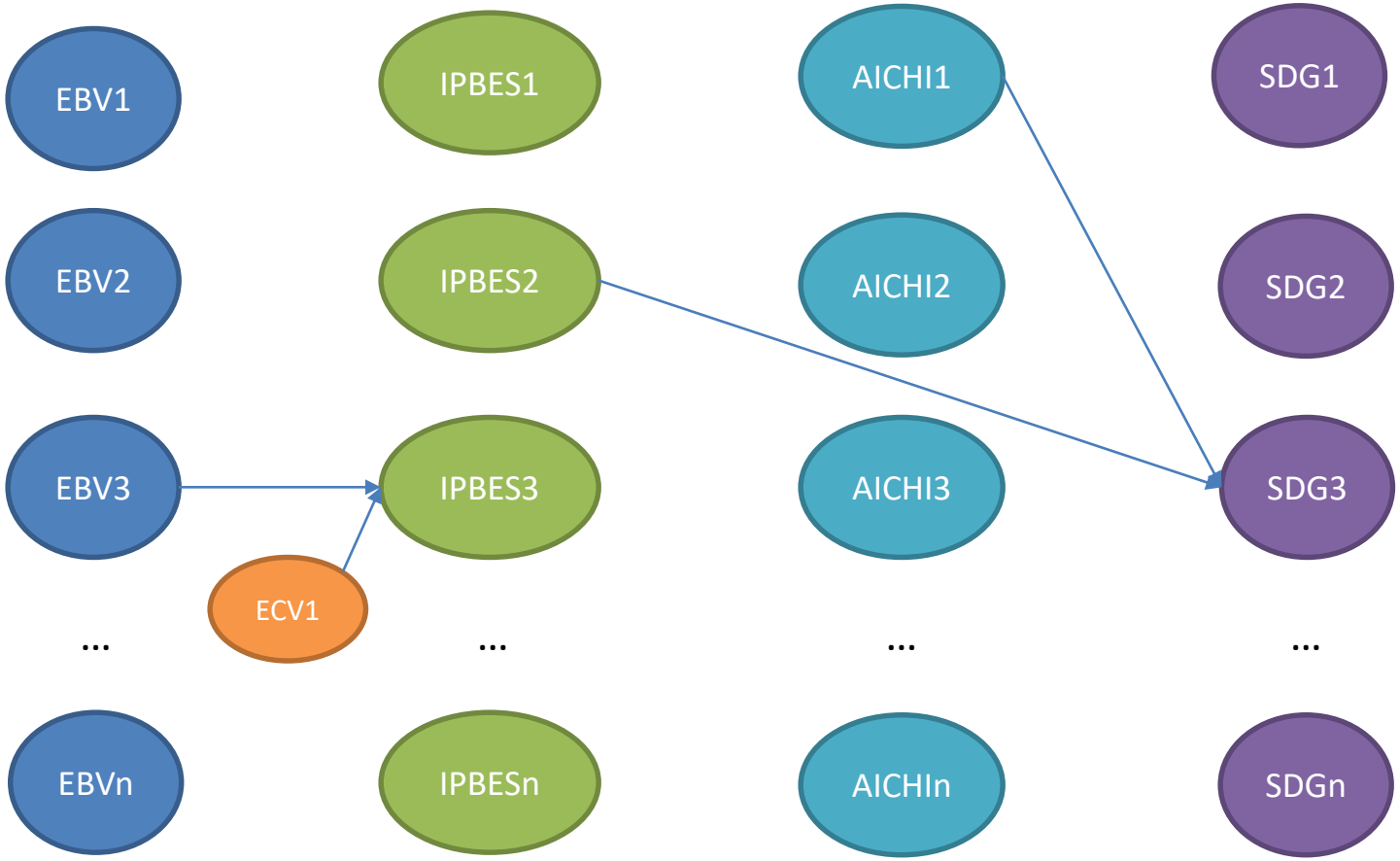
Type A link: The indicator is coincident (same name) across indicator sets
Type B link: The EBV/indicator alone can be used to monitor the IPBES indicator/Aichi indicator/SDG indicator

Methodological approach



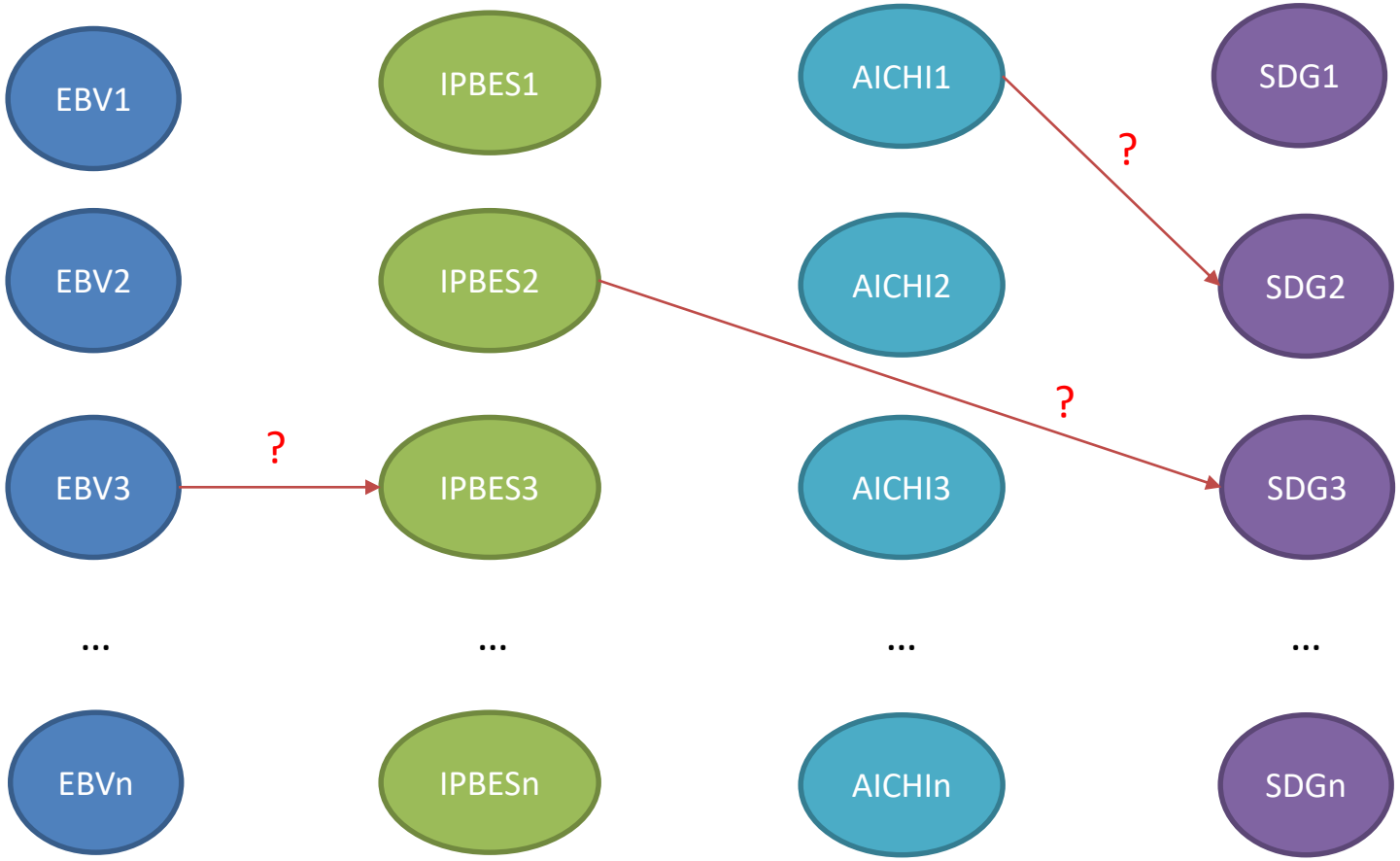
Type C link: The EBV/indicator can be combined with one or more EBVs/indicators (of the same set) to monitor the IPBES indicator/Aichi indicator/SDG indicator

Methodological approach



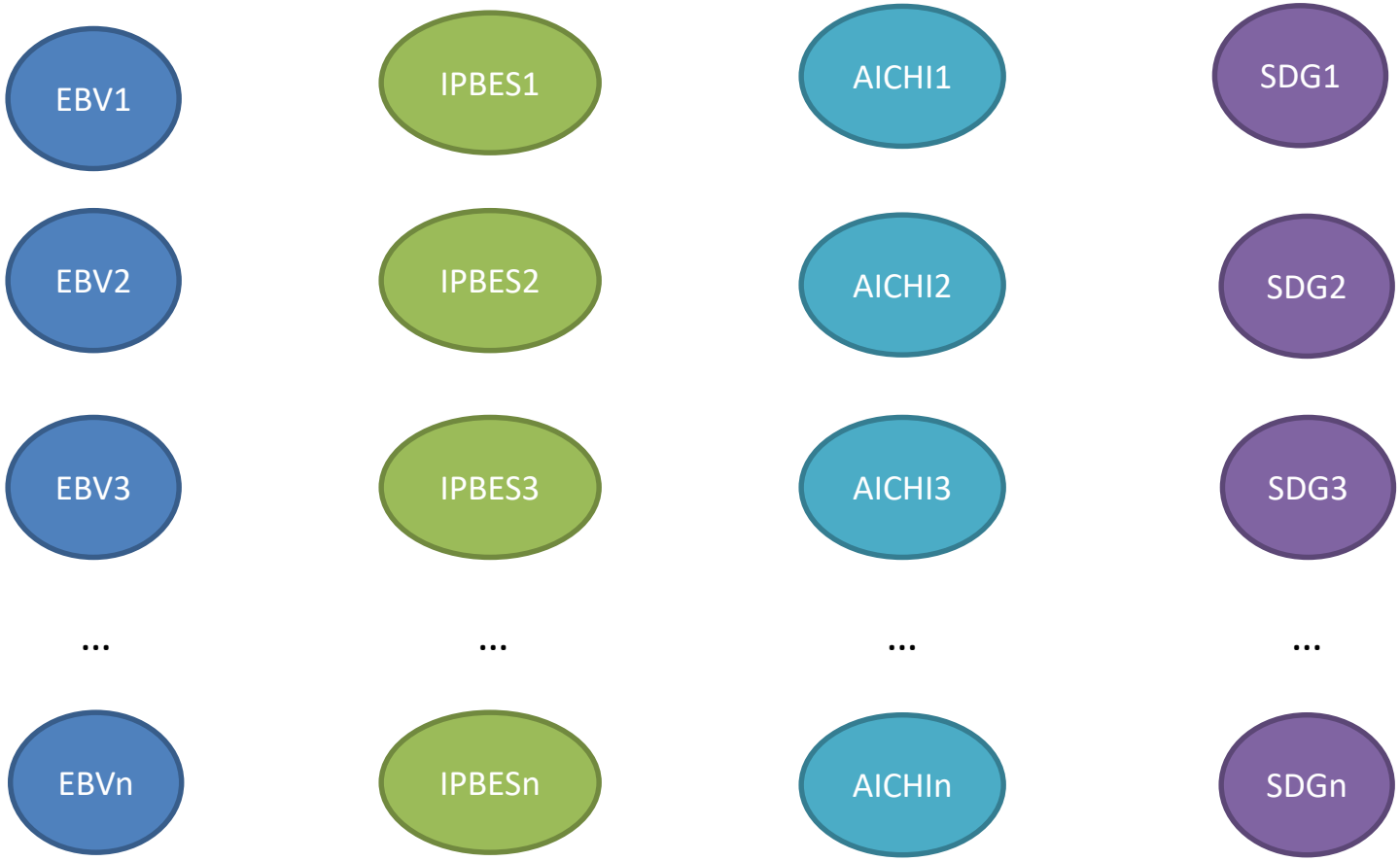
Type D link: The EBV can be combined with essential variables defined for domains other than biodiversity (e.g. climate) to monitor the IPBES indicator/Aichi indicator/SDG indicator; the indicator can be combined with indicators from another set to monitor the SDG indicator

Methodological approach



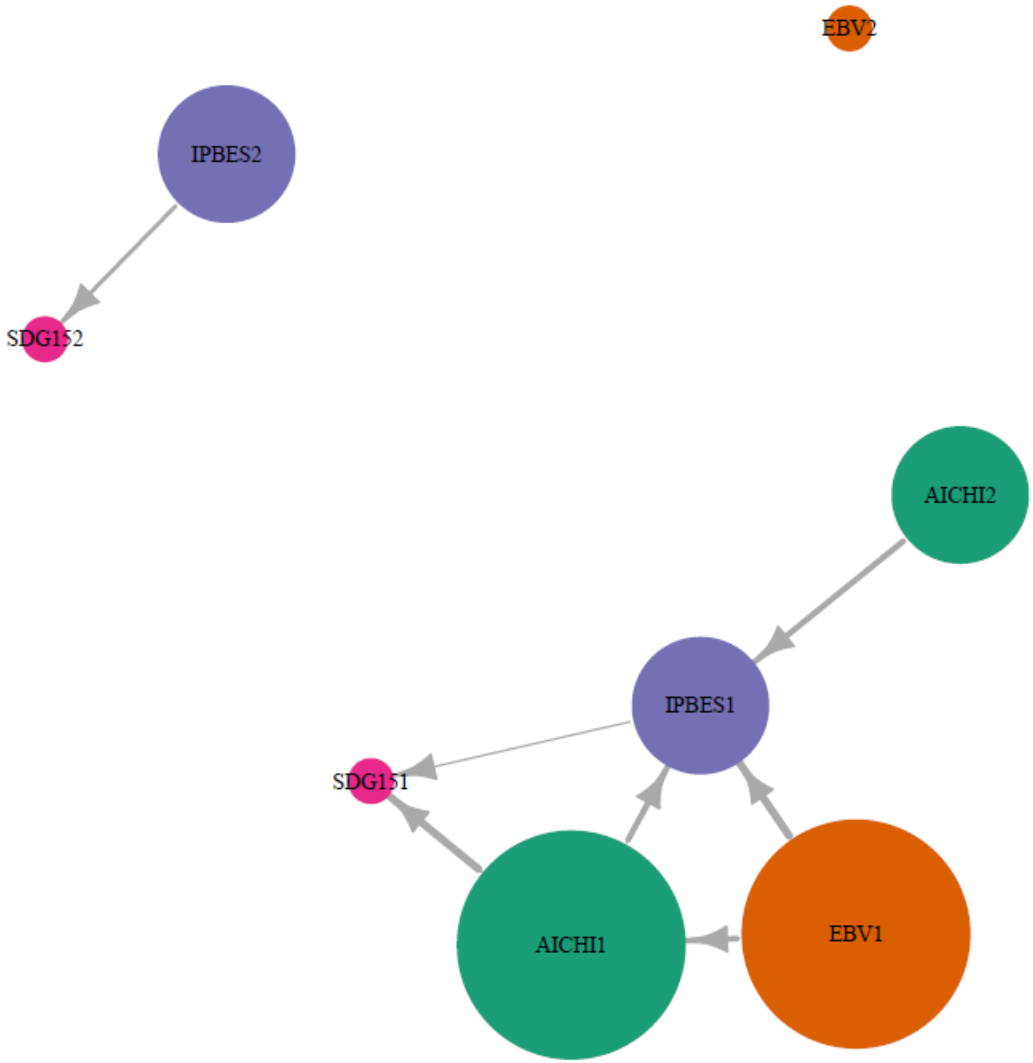
Type E/? link: The EBV/indicator can be used to monitor the IPBES indicator/Aichi indicator/SDG indicator but a link of type B, C or D cannot be clearly defined

Methodological approach



Type F link: The EBV/indicator cannot be used, alone or in combination with other essential variables/indicators, to monitor the IPBES indicator/Aichi indicator/SDG indicator (no link)

Output (illustrative example)



Methodological approach

A/RES/71/313
E/CN.3/2018/2

Global indicator framework for the Sustainable Development Goals and targets of the 2030 Agenda for Sustainable Development

Sustainable Development Goal indicators should be disaggregated, where relevant, by income, sex, age, race, ethnicity, migratory status, disability and geographic location, or other characteristics, in accordance with the Fundamental Principles of Official Statistics.[1]

Goals and targets (from the 2030 Agenda for Sustainable Development)	*Indicators*
Goal 1. End poverty in all its forms everywhere	
1.1 By 2030, eradicate extreme poverty for all people everywhere, currently measured as people living on less than $1.25 a day	1.1.1 Proportion of population below the international poverty line, by sex, age, employment status and geographical location (urban/rural)

Methodological approach

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Core indicators

List of core indicators selected for use in IPBES regional assessments and global assessment

Aichi Target	Specific Indicator	DPSIR[1]	CF[2]	GA Chapter[3]	RA Chapter[4]	LDRA Chapter	Origin[5]	BIP[6]	Source
4	Ecological Footprint	P	DD	2,3	2(AM, ECA)		CBD	B	Global Footprint Network
4	Water Footprint (Human appropriation of fresh water)	P	DD	2,3	2(AM)	5	CBD		Water Footprint Network
4	Percentage of Category 1 nations in CITES	R	IGID	3			CBD	BP	Convention on International Trade in Endangered

Knowledge and Data
- Related events
- Members of the task force on knowledge and data
- Indicators and data for IPBES assessments ▾
  - Core indicators
  - Highlighted indicators
- Web-based infrastructure
- Knowledge generation

www.ipbes.net

Methodological approach

UNEP

CBD

Convention on Biological Diversity

Distr.
GENERAL

CBD/COP/DEC/XIII/28
12 December 2016

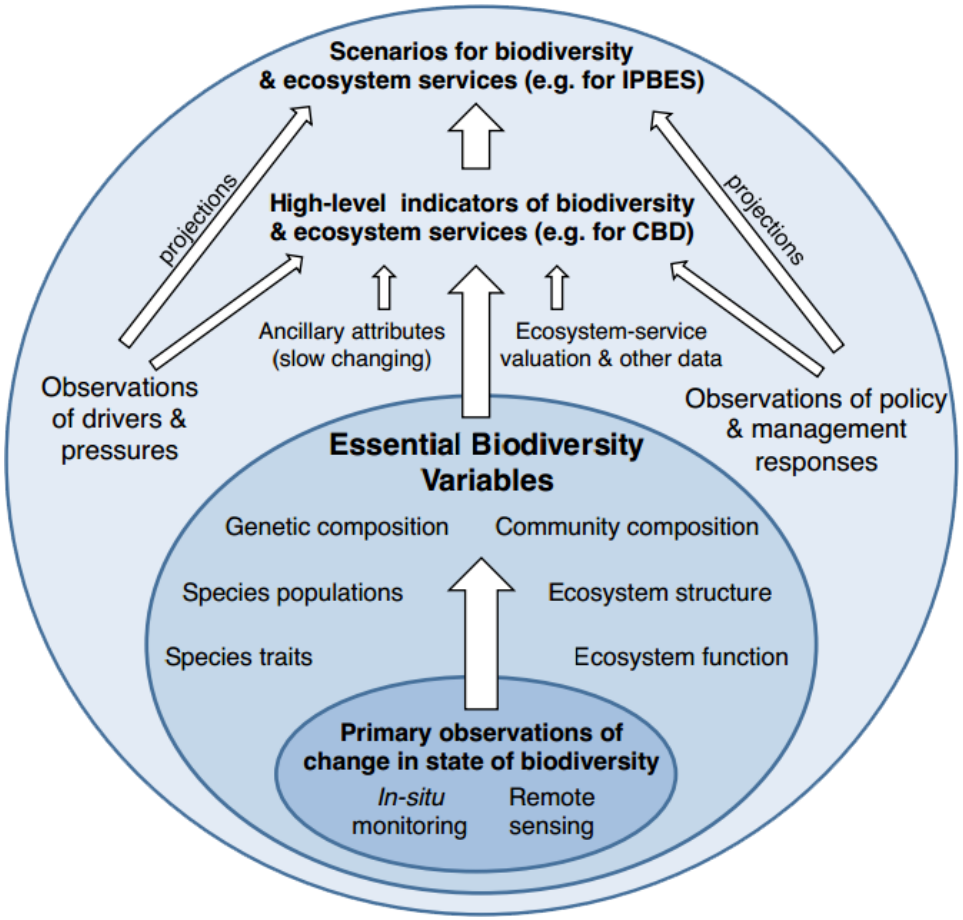
ORIGINAL: ENGLISH

CONFERENCE OF THE PARTIES TO THE
CONVENTION ON BIOLOGICAL DIVERSITY
Thirteenth meeting
Cancun, Mexico, 4-17 December 2016
Agenda item 19

DECISION ADOPTED BY THE CONFERENCE OF THE PARTIES TO THE CONVENTION ON BIOLOGICAL DIVERSITY

XIII/28. Indicators for the Strategic Plan for Biodiversity 2011-2020 and the Aichi Biodiversity Targets

Methodological approach



EBV class	EBV candidate
Genetic composition	Co-ancestry
	Allelic diversity
	Population genetic differentiation
	Breed and variety diversity
Species populations	Species distribution
	Population abundance
	Population structure by age/size class
Species traits	Phenology
	Morphology
	Reproduction
	Physiology
	Movement
Community composition	Taxonomic diversity
	Species interactions
Ecosystem function	Net primary productivity
	Secondary productivity
	Nutrient retention
	Disturbance regime
Ecosystem structure	Habitat structure
	Ecosystem extent and fragmentation
	Ecosystem composition by functional type

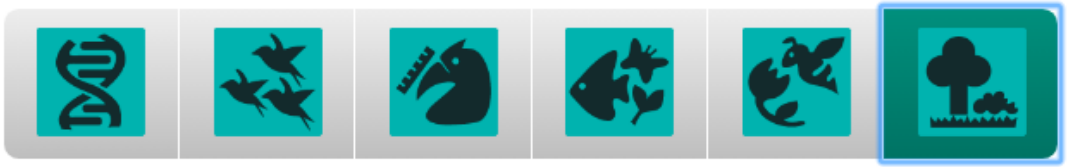
Source: GEO BON

Methodological approach

EBV classes and candidates

There are 6 EBV classes with 21 EBV candidates.

Click on each EBV class to get more detailed information about the candidates for each class.



show all EBV classes & candidates

EBV class - Ecosystem structure

Habitat structure

Measurement and scalability	Temporal sensitivity	Feasibility	Relevance and related CBD 2020 targets
Remote sensing measurements of cover (or biomass) by height (or depth) classes globally or regionally, to provide a 3-dimensional description of habitats	<=1 year	Global terrestrial maps available with RS (e.g., LIDAR). Marine and freshwater habitats mapped by combining RS and in situ data	Proxy for biomass in ecosystems; key deteminant of habitat suitability for biodiversity; basis for land cover classification. Aichi Targets: 5, 11, 14, 15

Source: GEO BON

Next steps

- Map network against DPSIR (complementarity of indicator sets)
- Include SDG 14 (Life below water) indicators
- Use analysis based on documents as starting point for doing exercise with experts → get in touch if interested!

Advantages

- Role of SDG indicators for coordinating domain-specific policies
- Role of EVs for monitoring of policy-driven indicators
- Ability of indicators and EVs to promote a systems approach to monitoring and reporting
- Identifying synergies and gaps towards better coordination of monitoring / reporting efforts
- Can be extended to other SDG indicators and to indicator sets or essential variables for other domains
- Post-2020 biodiversity strategy - draw lessons from current monitoring framework; indicator development; “boundary object” for discussion among experts

Session questions

1. For whom/what are your indicators fit-for-purpose?
   SDGs, CBD, IPBES, EBVs

2. Which were important evaluation criteria that need(ed) to be fulfilled in your case to ensure that the indicators will be fit-for-purpose?
   Different types of linkages

3. Which procedures did/do you apply to ensure the criteria are fulfilled?
   Document analysis; expert inputs

Thank you for your attention!

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