



Indicators for a Green Economy
Introductory course

Session 2

CHOOSING INDICATOR FRAMEWORKS

Indicators frameworks

Key points

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- 6 types of conceptual frameworks

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- In depth: The Green Growth Knowledge Platform framework

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- A conceptual framework helps to guide the choice of indicators
 - 6 types of conceptual frameworks
 - In depth: The Green Growth Knowledge Platform framework
- 5 issues-based **themes** for classifying IGG indicators:
- Natural assets, efficiency, resilience, policy, inclusiveness

Why have a framework?

- To reduce complexity



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- To help assure full coverage and avoid gaps

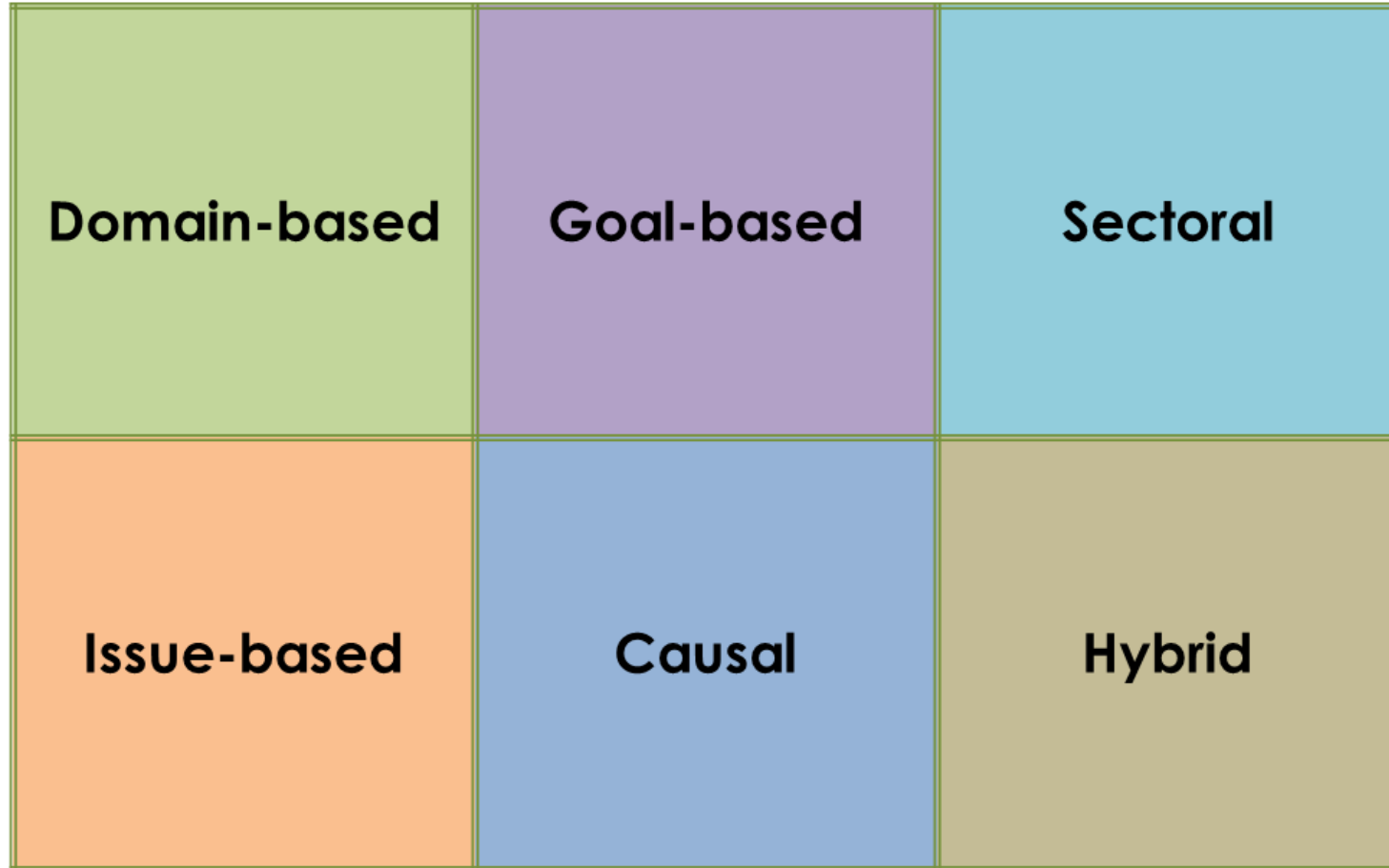
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- To help assure full coverage and avoid gaps
- To give stakeholders common ground for discussion
- To provide context

6 types of frameworks



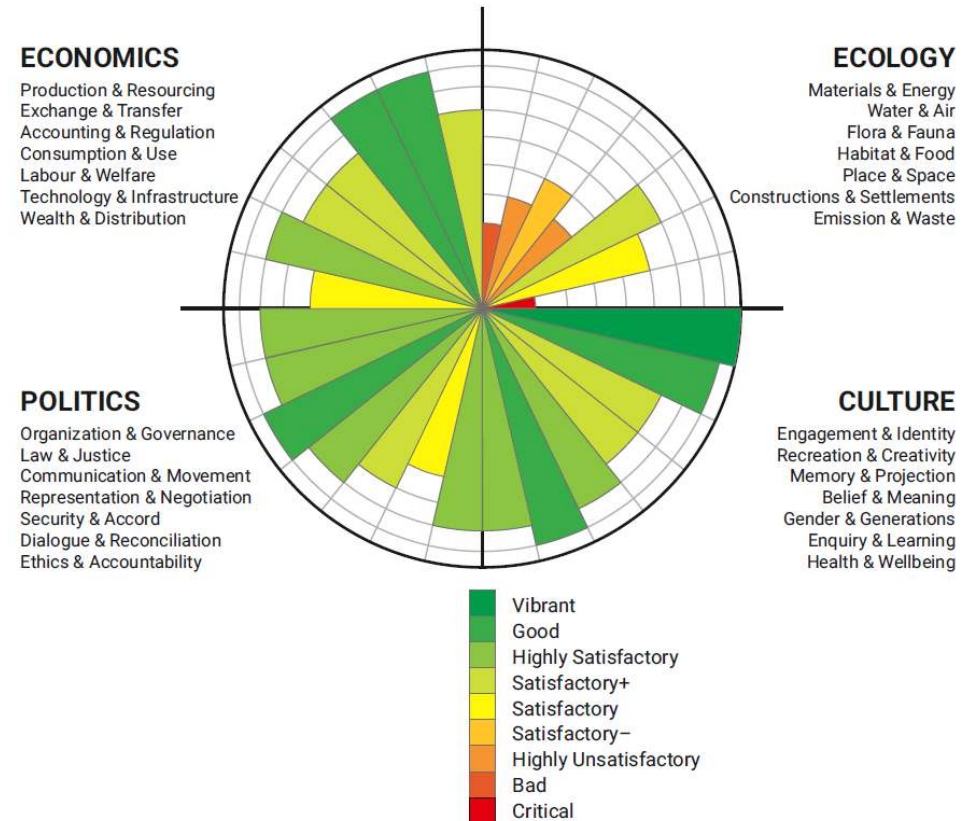
1. Domain-based frameworks

...categorize indicators under the 3 domains of sustainability – environment, economy, society – and sometimes others

Advantage: Easily understood

Disadvantage: Sometimes ignore the interdependence of the 3 pillars

CIRCLES OF SUSTAINABILITY

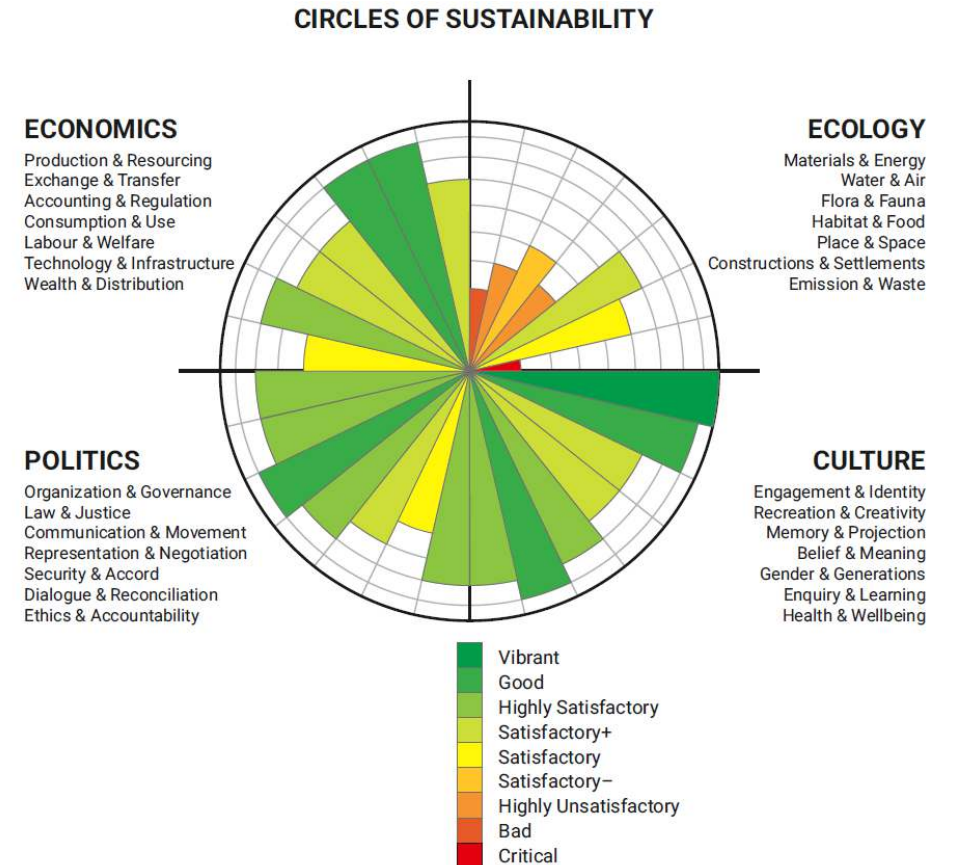


1. Domain-based frameworks

...categorize indicators under the 3 domains of sustainability – environment, economy, society – and sometimes others

Examples:

- Circles of Sustainability →
- diagnostic indicator set developed by the Global Green Growth Institute
- UNEP framework
- Tetrahedral Model of Sustainability



2. Goal-based frameworks

...are normative. They rely on concrete statements about what society must address.

Advantages:

- Limit candidate indicators to those reflecting sustainability goals
- reveal progress or back-sliding

Disadvantage:

- often oversimplify interlinkages
- may limit debate



2. Goal-based frameworks

...are normative. They rely on concrete statements about what society must address.

Examples:

- Sustainable Development Goals →
- UNESCAP framework



3. Sectoral frameworks

...group indicators along the lines that government administration is structured is.

Advantage:

- Convenient for administrative uses

Disadvantage:

- Otherwise not widely used

GRECO headline regional GE performance indicators

Table 2 presents the **headline indicators** for the bottom-up derived regional performance indicator set, i.e. the economic sectors analysed in GRECO. The headline indicators were proposed by the authors of the sector studies after finalisation of the reports and are **meant to represent the sector in a single indicator** with the additional requirement of being ideally available at regional level.

Economic Sector	Headline indicator
Agriculture	Organic area
Building and construction	Energy consumption in residential buildings
Energy production	Renewable energy
Green research and eco-innovation	Eco-innovation scoreboard
Manufacturing	Environmental protection expenditure
Tourism	Tourist overnight stay density
Transport	Motorisation rate
Waste management	Waste recycling
Water management	Waste water treatment

Table 2: Headline indicators for regional green economic performance of economic sectors

3. Sectoral frameworks

...group indicators along the lines that government administration is structured is.

Example:

- ESPON GREECO project, *Territorial Potentials for a Greener Economy* (2014)

GREECO headline regional GE performance indicators

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4. Issue-based frameworks

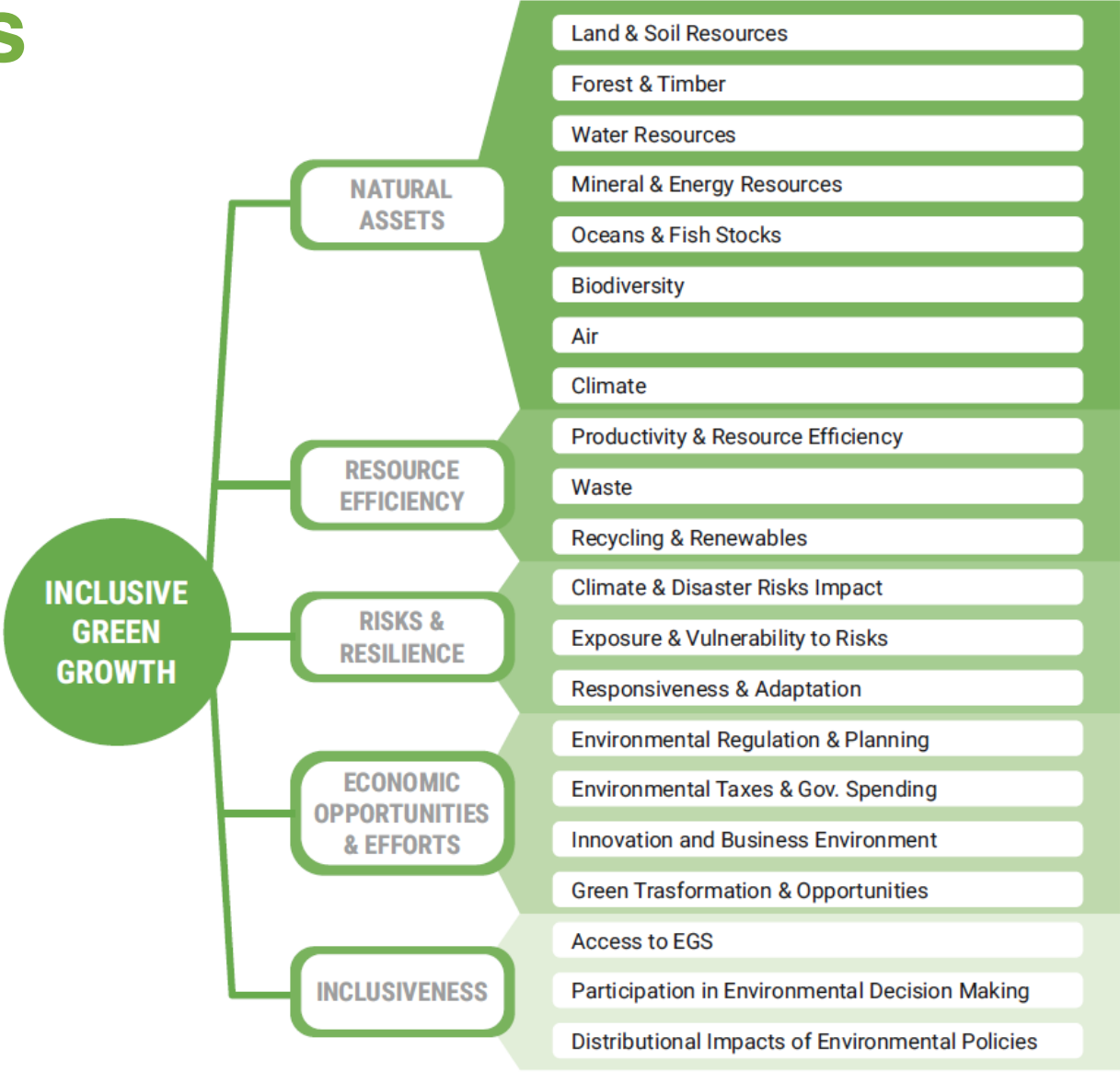
...reflect a set of key issues, stakes or criteria

Advantages:

- Easy to construct and understand

Disadvantages:

- May be “scattershot”



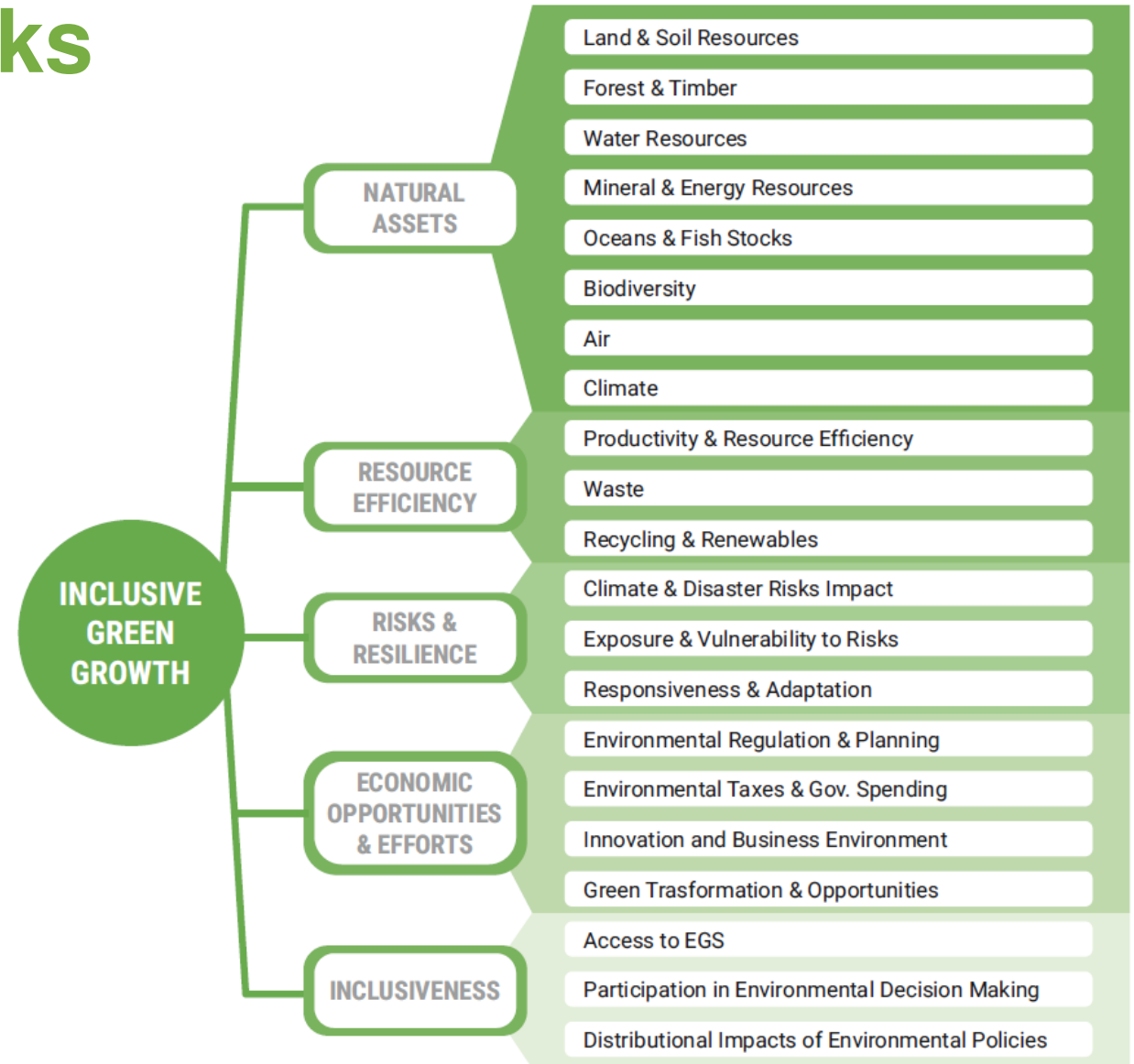
Source: adapted from GGKP (2016: 3–8)

4. Issue-based frameworks

...reflect a set of key issues, stakes or criteria

Example:

- Green Growth Knowledge Platform framework



Source: adapted from GGKP (2016: 3–8)

5. Causal frameworks

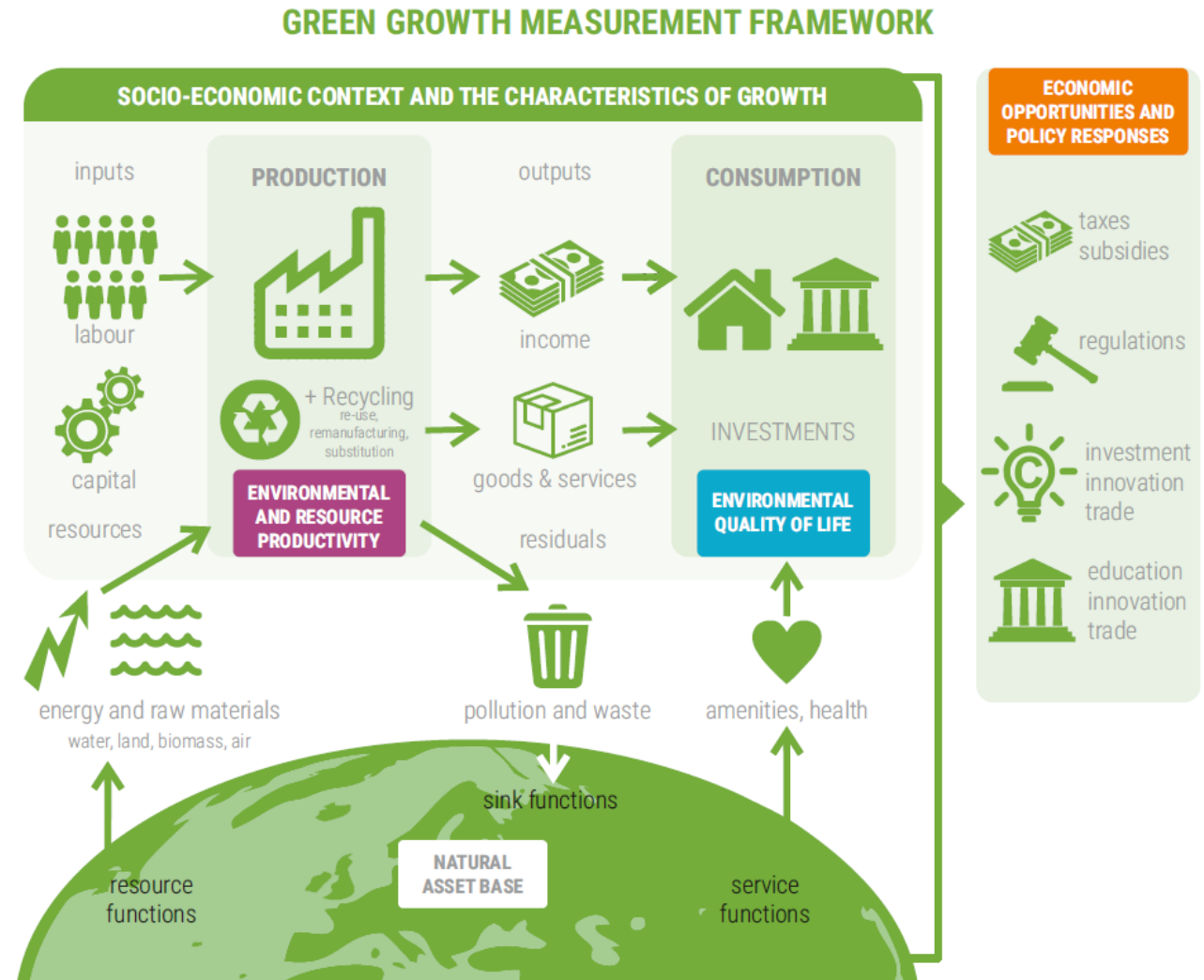
...indicate the cause-and-effect relationships among variables

Advantage:

- Show the links among categories or indicators

Disadvantage:

- May oversimplify



Source: OECD (2017: 14)

5. Causal frameworks

...indicate the cause-and-effect relationships among variables

Examples:

- OECD green growth measurement framework →
- European Environment Agency DPSIR model



Source: OECD (2017: 14)

6. Hybrid frameworks

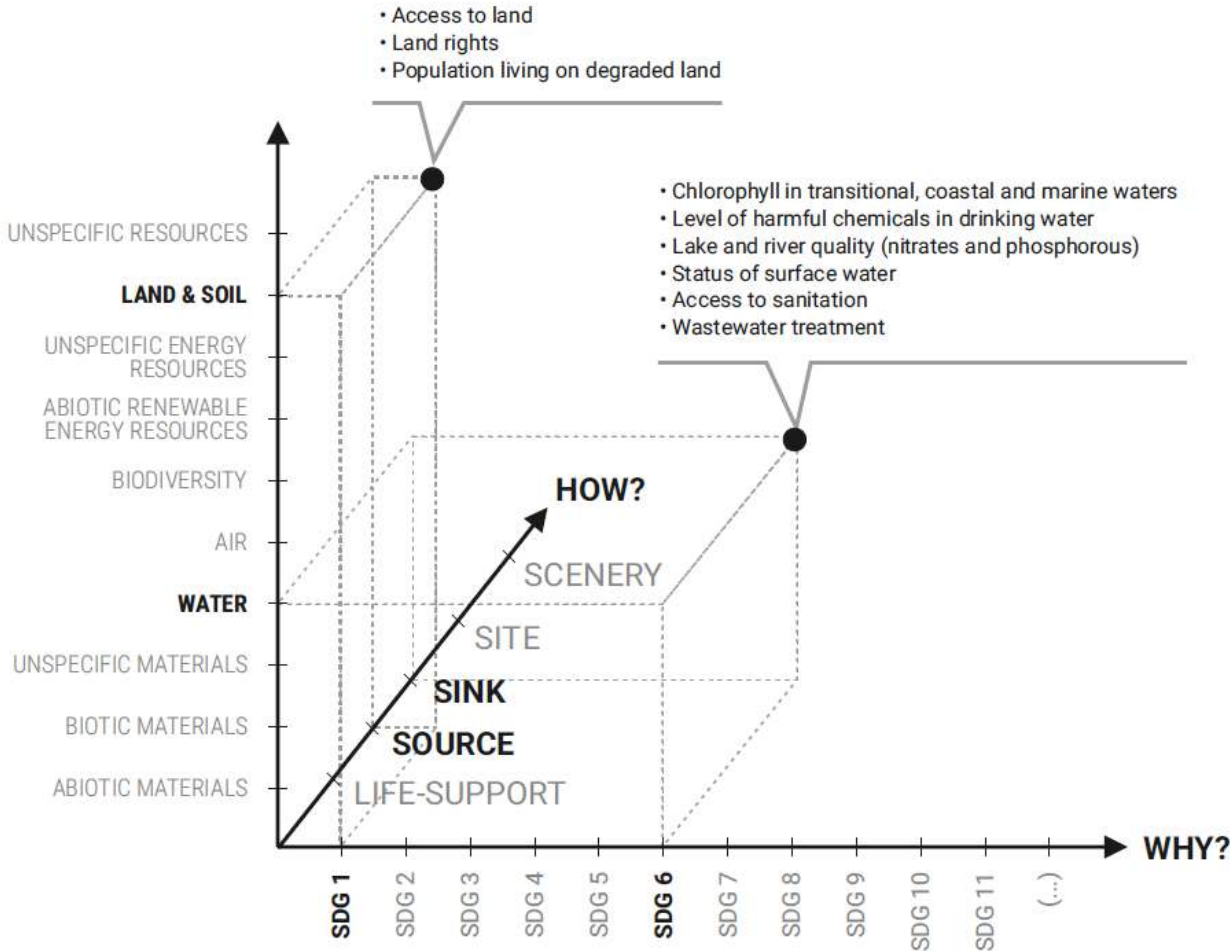
... combine several framework types, creating a multi-dimensional prism

Advantage:

- Suits the plural information of most GE indicators

Disadvantage:

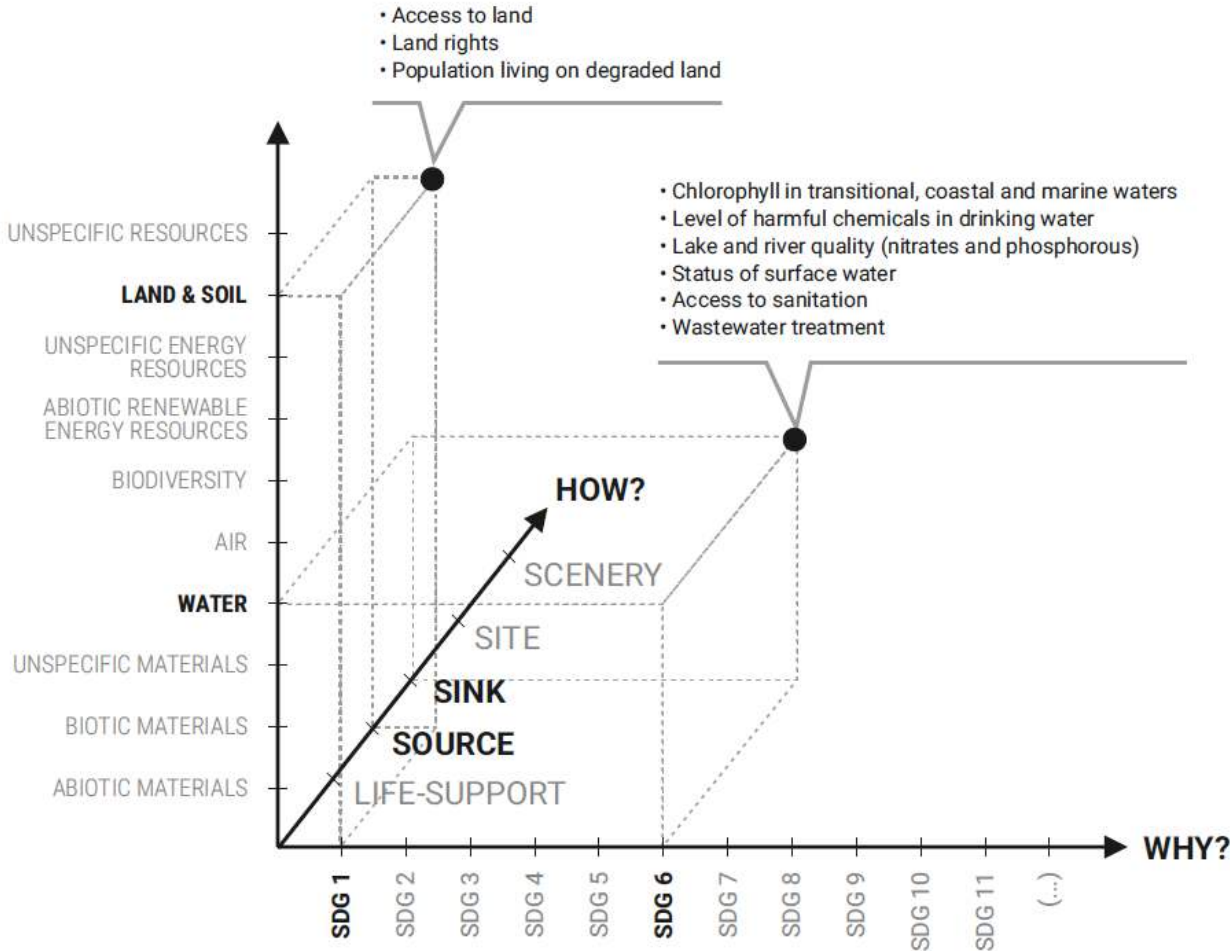
- Time-consuming to prepare
- Complex, so may be hard to communicate



6. Hybrid frameworks

... combine several framework types, creating a multi-dimensional prism

- Examples:**
- GEP Measurement Framework
 - Green Cube →
 - MONET indicator system



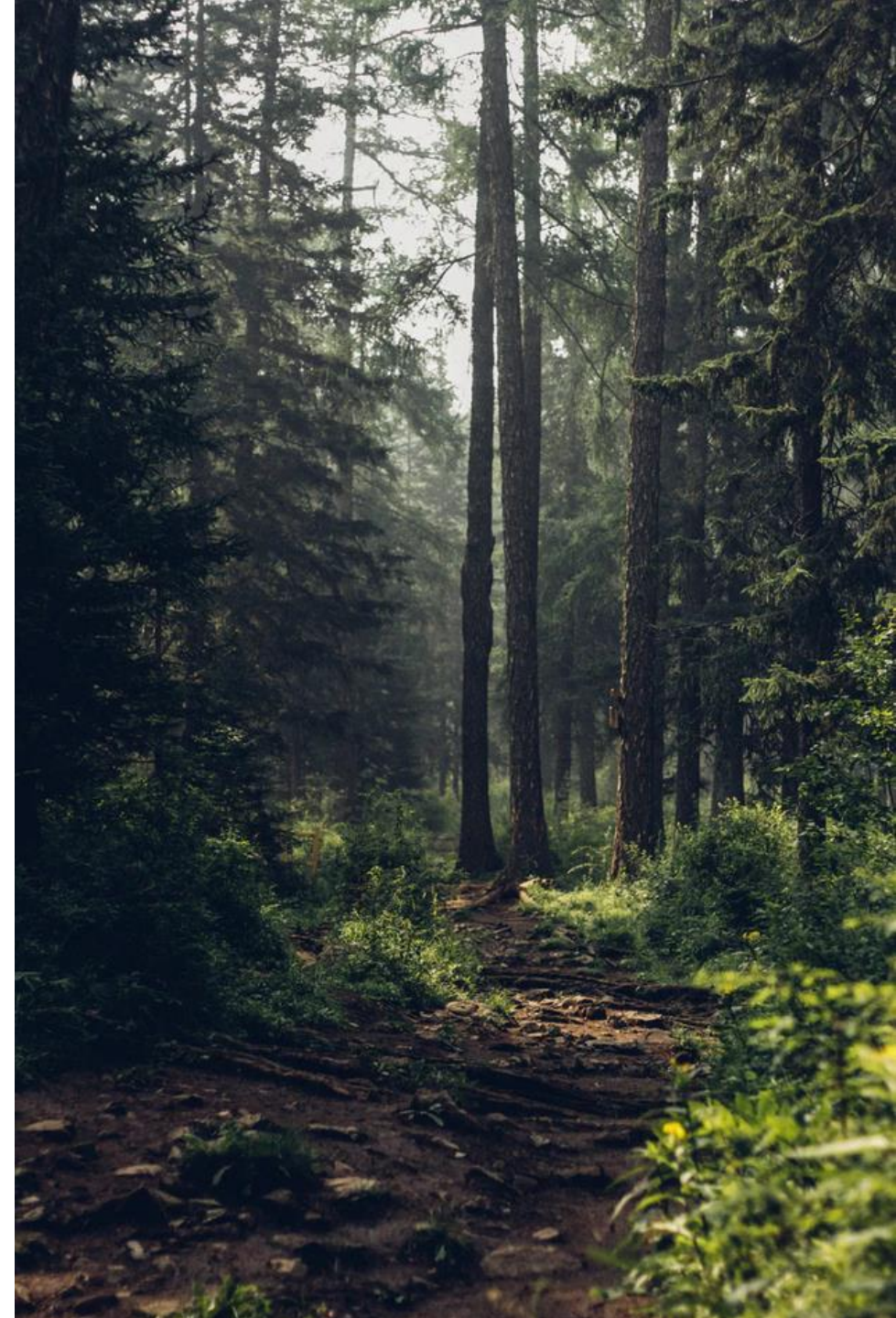
In depth: GGKP issue-based indicators framework

5 THEMES

- Natural assets
- Resource efficiency and decoupling
- Risks and resilience
- Economic opportunities/efforts
- Inclusiveness

Natural asset indicators...

...reflect the natural resources that generate economic growth and ecosystem services that support economic activities



What do natural asset indicators measure?

Examples:

- value of timber stocks
- areas of water scarcity
- number of threatened species
- sustainable seafood production
- cost of air pollution

Indicators of resource efficiency and decoupling...

...compare economic outcomes with environmental inputs or pollution associated with production or consumption

Decoupling: Producing the same quantity of a product with less degradation of natural assets



What do resource efficiency indicators measure?

Examples of production-based indicators:

- greenhouse gas emissions
- productivity of land

Examples of demand-based indicators:

- atmospheric CO₂ concentration
- area of forested land as % of original forest cover

Risks and resilience indicators...

...measure how quickly economic growth recovers from ecological shocks

Resilience: the “ability of a system, community or society...to resist, absorb, accommodate to and recover from the effects of a hazard in a timely and efficient manner”

— World Conference on
Disaster Risk Reduction, 2015



What do risk and resilience indicators measure?

Examples:

- fatalities, injuries, homelessness after natural disaster
- population exposed to harmful levels of air pollution
- implementation of climate-resilient building standards
- government capacity to manage disaster risks

Economic opportunities and efforts...

...reflect adoption and implementation of policies enabling transformation towards IGE and also tracks that transformation



Green
Growth



What do indicators of economic efforts measure?

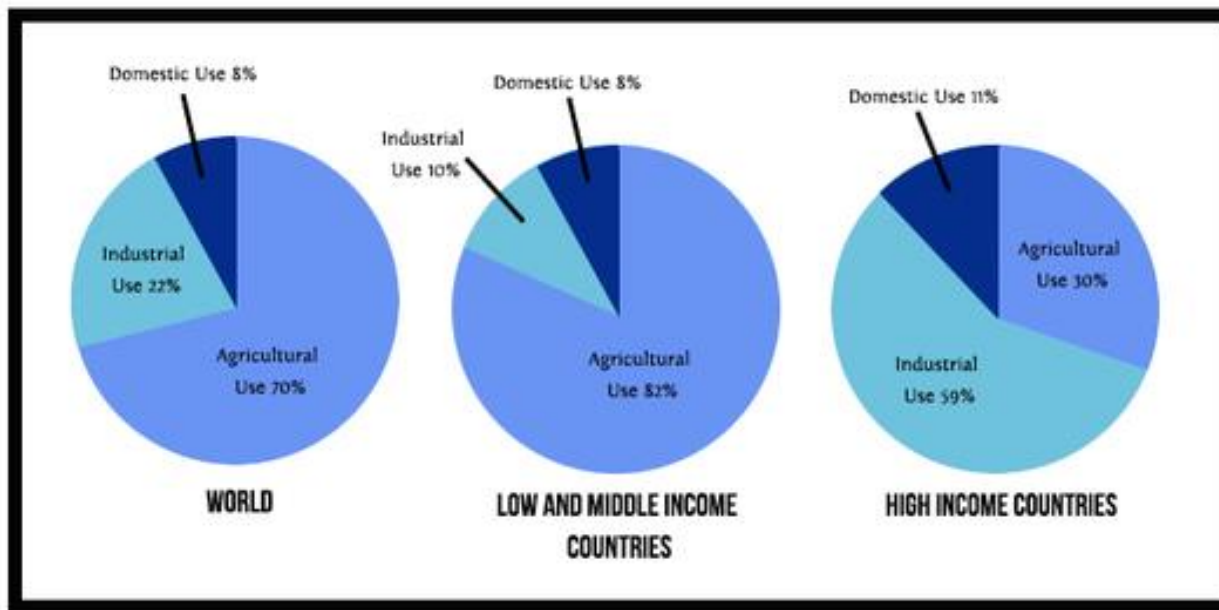
Examples:

- green investments (e.g., in renewable energy, waste treatment facilities)
- green trade
- green patents
- green jobs
- fossil fuel subsidies

Inclusiveness indicators...

...measure how the costs and benefits of environmental policies are distributed among different groups

GLOBAL USE OF WATER ACROSS INCOME GROUPS



What do indicators of inclusiveness measure?

Examples:

- access to sanitation services (by socioeconomic group)
- representation in environmental policymaking (e.g., by minority, location, gender)
- distribution of costs/benefits of energy subsidies
- jobs of various types and locations created/lost by the move toward IGE