

# **Social and Environmental Considerations, Resource Management, and the Sustainable Development Goals**

*Considering Connections*



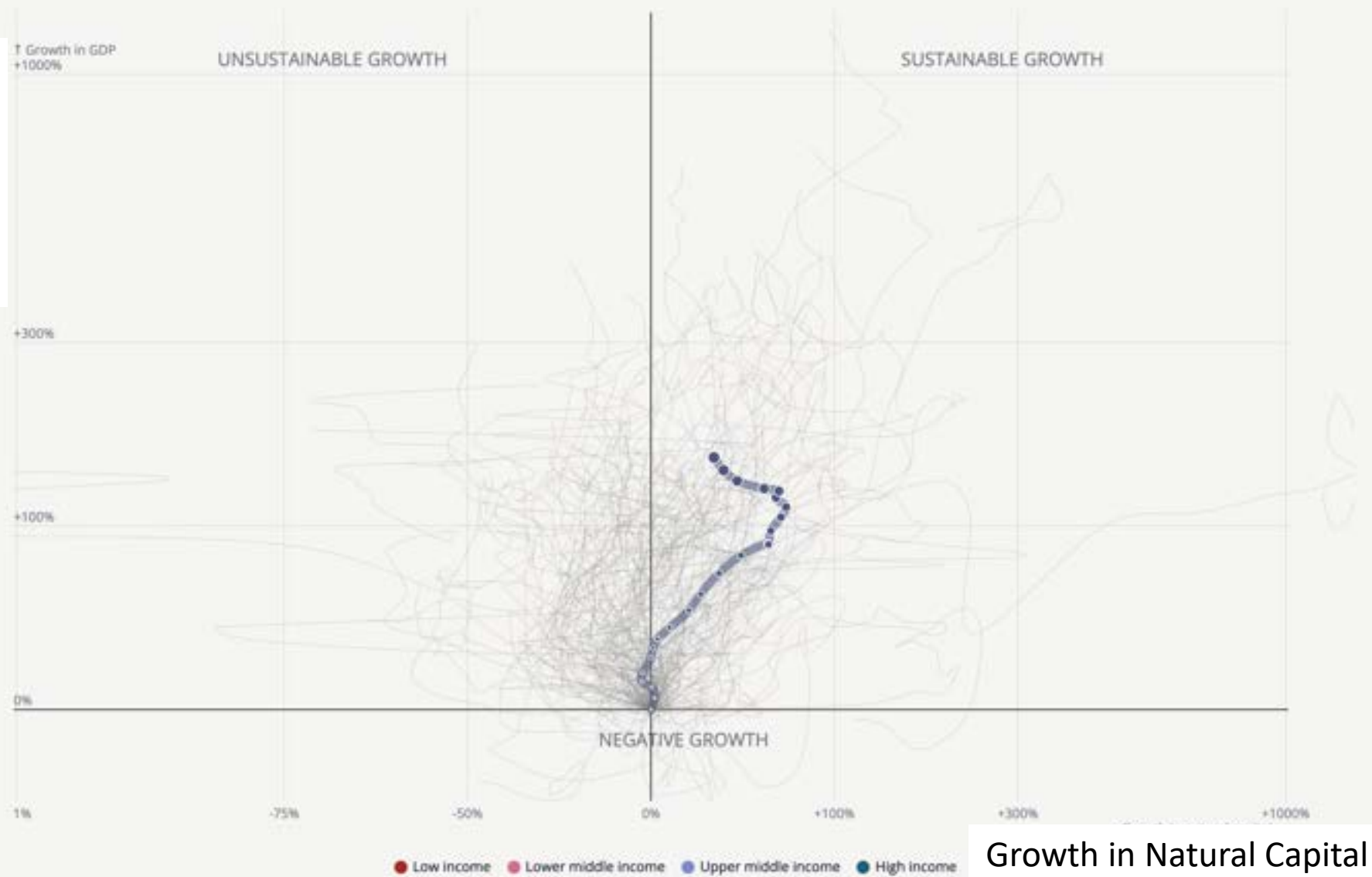
**RESOURCE MANAGEMENT WEEK  
2024**



**UNECE**

# Growth in Natural Capital per capita and GDP per capita (%), 1996-2018

Growth in GDP



Growth in Natural Capital

Data: World Bank (2021).

***A country is making progress toward SDG 12 if it is growing as it aspires to without degrading the environment.***

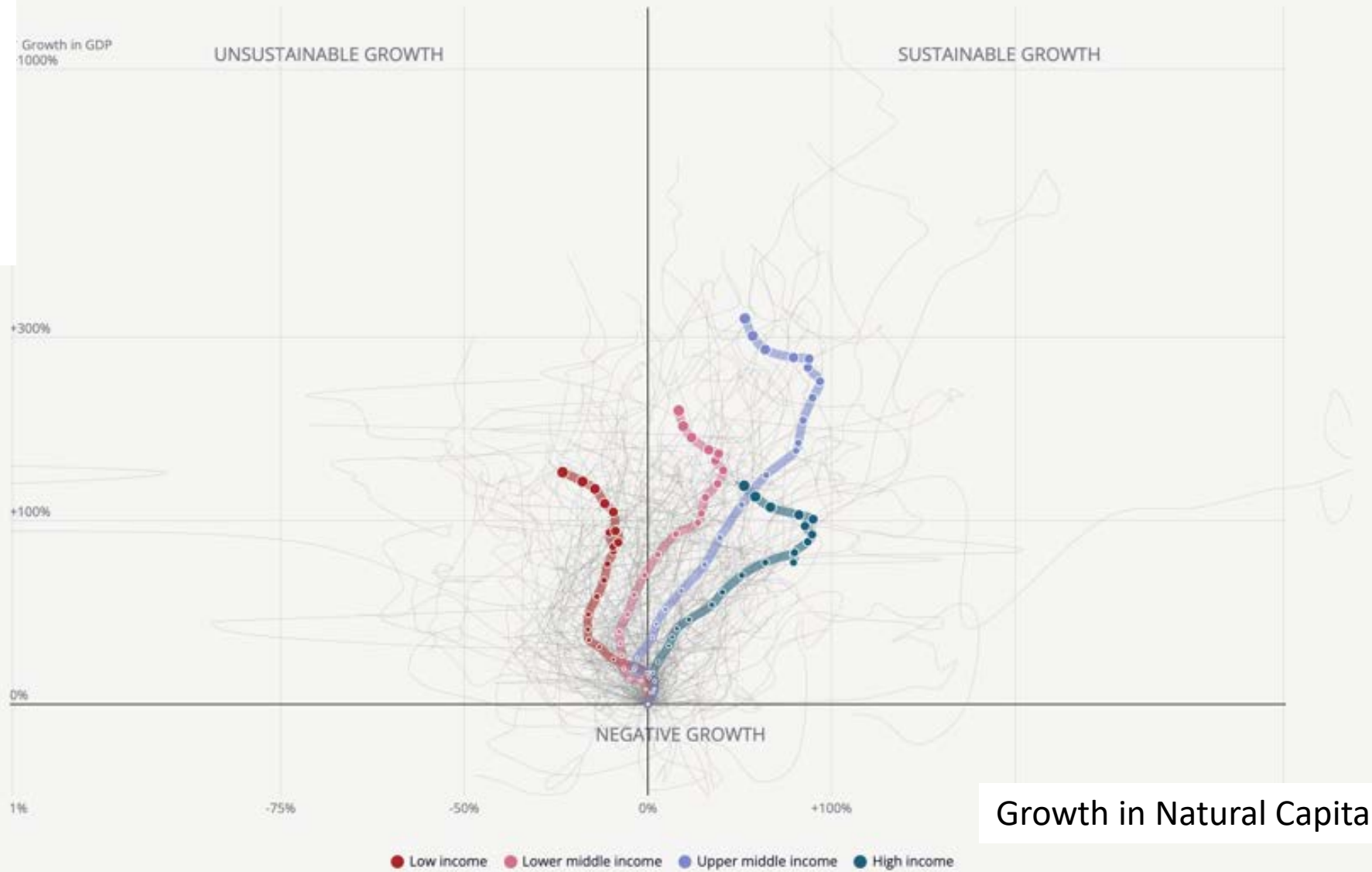
*Natural Capital is defined as stocks of natural assets such as geology, soil, air, water, ecosystems, and all living things.*

*Natural capital provides ecosystem services to us, such as food, water, fuel, medicine, climate regulation, flood and fire defense, carbon storage, and cultural inspiration that we receive.*

# Growth in Natural Capital per capita and GDP per capita (%), 1996-2018

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Growth in GDP

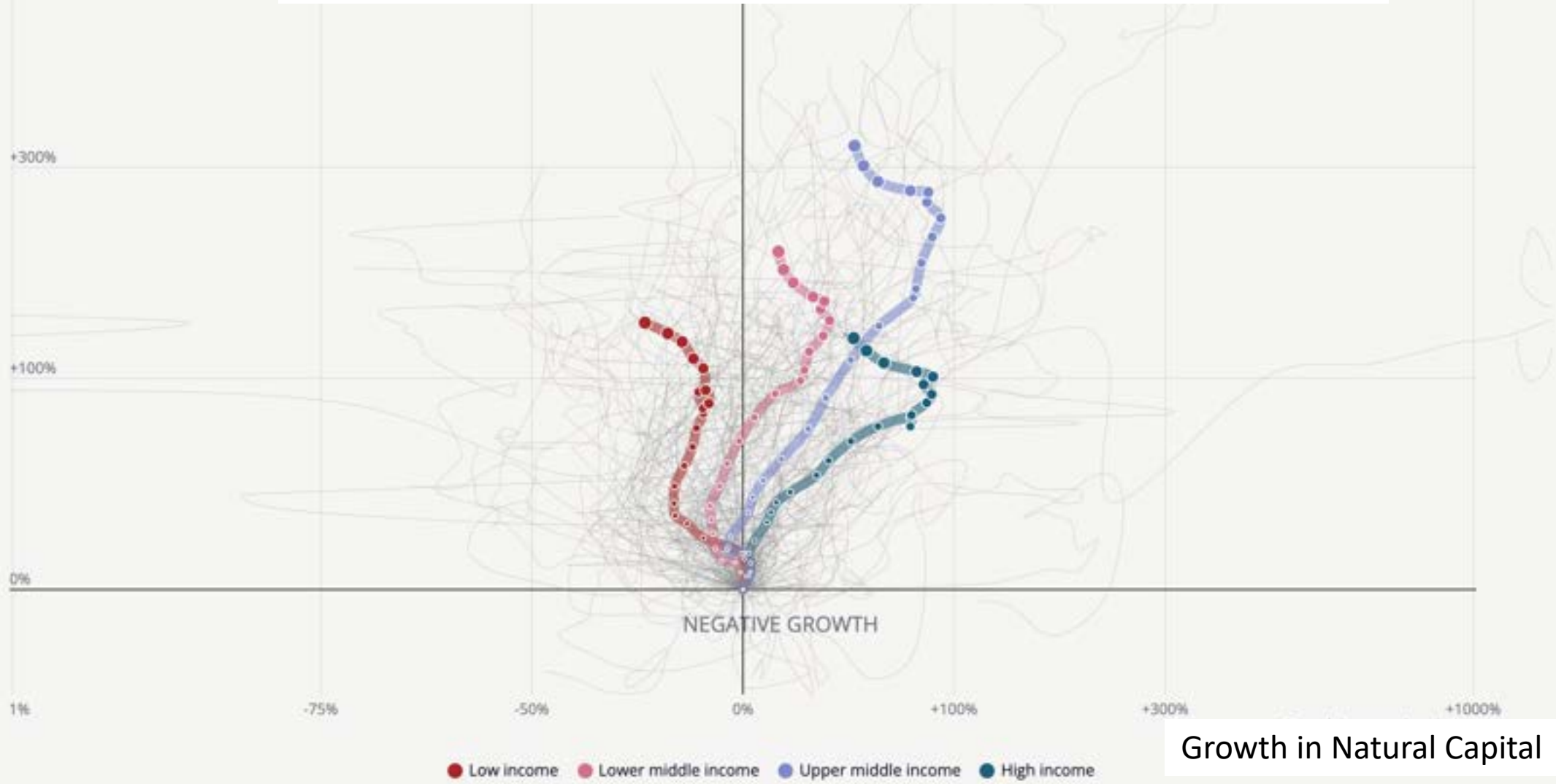


Growth in Natural Capital

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# Growth in Natural Capital per capita and GDP per capita (%), 1996-2018

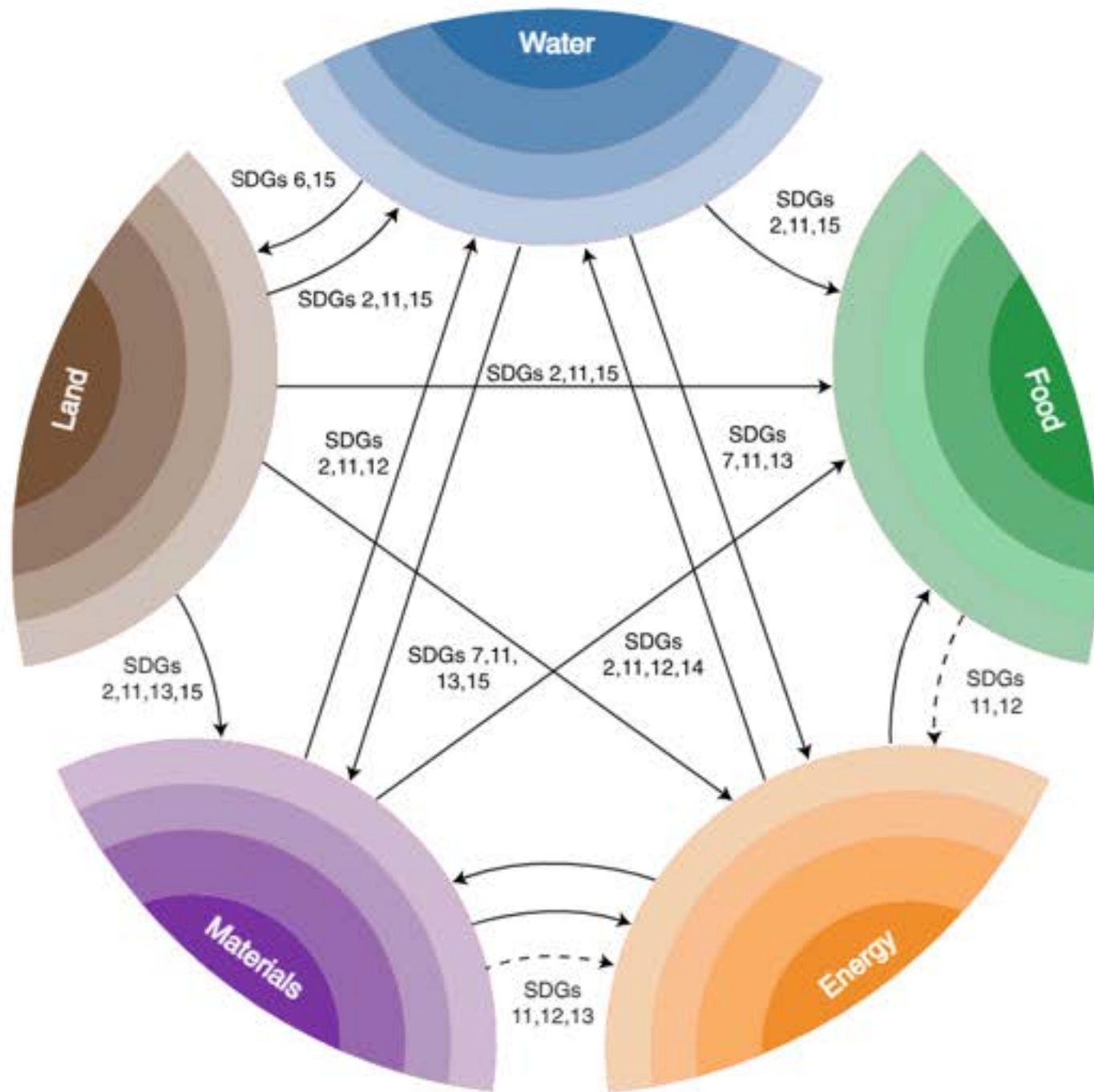
Growth in GDP



Growth in Natural Capital

Data: World Bank (2021).





**Stages of delivery chains**

- Supply categories
- Systems of provision
- Secondary inputs use

**Arrows**

- Input (major or minor provision of A needed to produce a service from B)
- - - → Substitution (A may substitute B for a certain service)

**Sustainable development goals:**

- SDG 2 Zero hunger
- SDG 6 Clean water and sanitation
- SDG 7 Affordable and clean energy
- SDG 11 Sustainable cities and communities
- SDG 12 Responsible consumption and production
- SDG 13 Climate action
- SDG 14 Life below water
- SDG 15 Life on land

Bleichwitz, Raimund & Spataru, Catalina & Vandevveer, Stacy & Obersteiner, M  
 Voet, Ester & Johnson, Corey & Andrews-Speed, Philip & Boersma, Tim & Hof  
 Vuuren, Detlef. (2018). Resource nexus perspectives towards the United Nations  
 Sustainable Development Goals. Nature. 1. 737 - 743. 10.1038/s41893-018-0

# Both of these Examples Illustrate the Importance of:



- Considering the social and environmental aspects of projects and policies involving natural resources – our natural capital
- Incorporating how people and natural landscapes interact with resources as we consider how to best utilize them
- Managing our natural resources to deliver economic and social wellbeing for people and industry for the long term, while also
- Ensuring that we maintain the health of our ecosystems





# There's more to it...

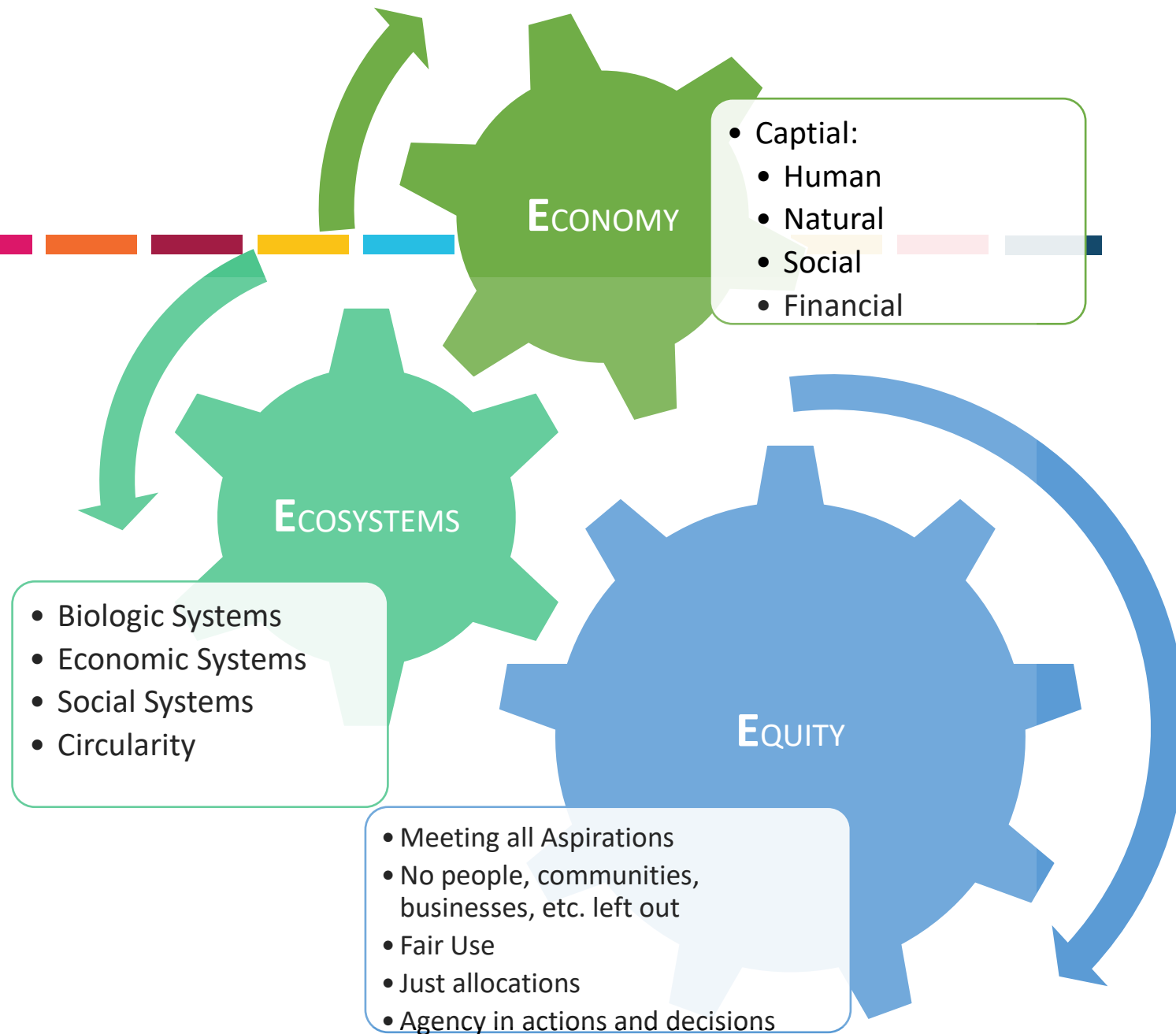
“...while the “nexus” [concept] has various key strengths, it fails to adequately acknowledge the environment as its irreplaceable foundation.”

Simpson, G.B., Jewitt, G.P.W., *The Development of the Water-Energy-Food Nexus as a Framework for Achieving Resource Security: A Review*, *Front. Environ. Sci.*, 08 February 2019  
 Sec. Freshwater Science Volume 7 - 2019 | <https://doi.org/10.3389/fenvs.2019.00008>

# The E-axis

## And Other Ideas

- An E-Axis “Menu” focusing on 3 “E’s – equity, econsystems, and economies
- Connect to other tools and frameworks
  - InVEST (Integrated Valuation of Ecosystem Services & Tradeoffs)
  - The UN System of Environmental-Economic Accounting – Ecosystem Accounting (SEEA EA)
- Use methods and consultants from the social sciences
- What are your ideas?





THE VIEWS EXPRESSED ARE THOSE OF PROF. DR. CARRIE MCCLELLAND  
AND DO NOT NECESSARILY REFLECT THE VIEWS OF THE UNITED NATIONS.

# Thank you!

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