UNIVERSITY OF GOTHENBURG

WHAT IS BIODIVERSITY?

AGENDA2030

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BIODIVERSITY: WHAT DO YOU SEE?

Biodiversity is all life on Earth, past and present.

How do we measure biodiversity?

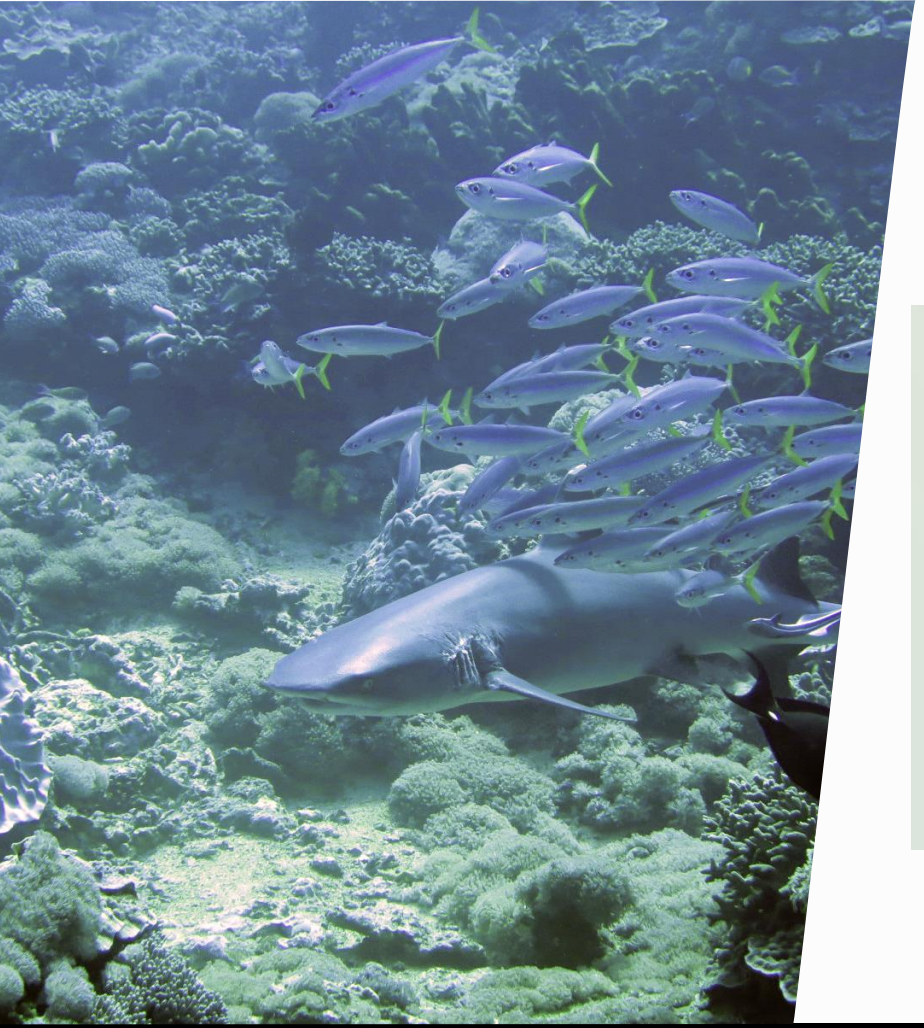
- Genetic diversity
- Species diversity
- Ecosystem diversity
- Functional diversity
- Biomass
- ... and more!

GENETIC DIVERSITY

SPECIES DIVERSITY

All 4 photos: (c) Harith Farooq

ECOSYSTEM DIVERSITY



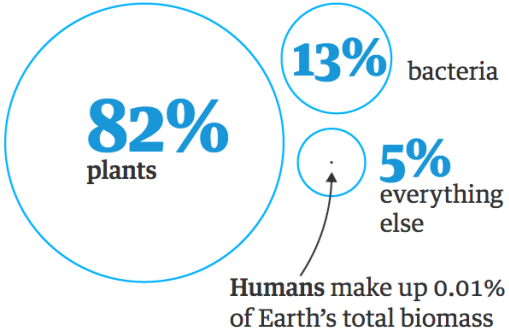
FUNCTIONAL DIVERSITY

Hawaiian honeycreepers. Illustration by Jillian Ditner, photo by Ashlyn Gehrett. From allaboutbirds.org.

BIODIVERSITY BY BIOMASS

The total biomass of the human race accounts for just 0.01% of the life on Earth

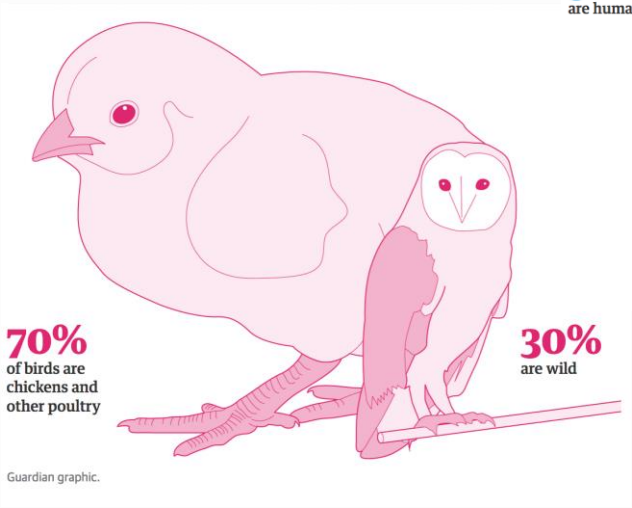
All life on Earth is made up of ...

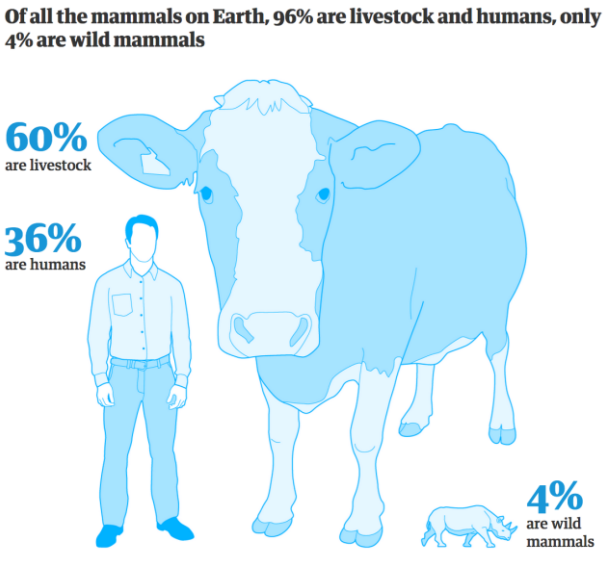


Guardian graphic.

Figures from The Guardian (2018), and based on data from Bar-On et al (PNAS; 2018)

BIODIVERSITY BY BIOMASS





Figures from The Guardian (2018), and based on data from Bar-On et al (PNAS; 2018)

There are an estimated 8.7 million species on Earth (+/- 1-3 million).

6.5 million species on land.

2.2 million species in the water.

Mora et al. (2011) PLoS Biology

And 1 million of them are threatened with extinction.

IPBES SPM (2019)

WHY CARE?

INHERENT VALUE
OF BIODIVERSITY

BRANZINO
1195
685
PERFECT WHOLE
795

NATURE'S CONTRIBUTIONS
TO PEOPLE

WHAT TO DO ABOUT BIODIVERSITY LOSS?

Understanding the problem to find solutions.

Stopping biodiversity loss or increasing biodiversity?

Drivers of biodiversity loss:

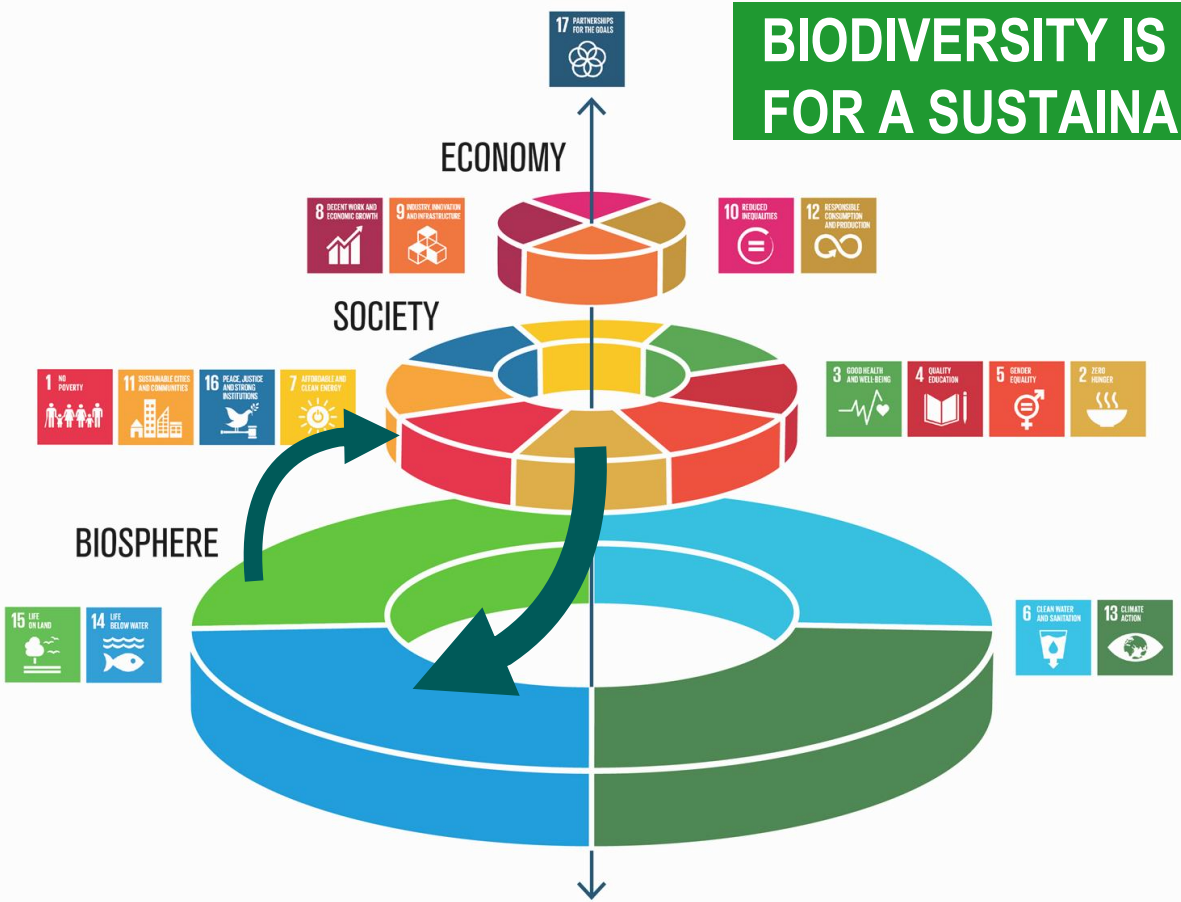
- Changes in land and sea use
- Direct exploitation of species
- Climate change
- Pollution
- Invasive species

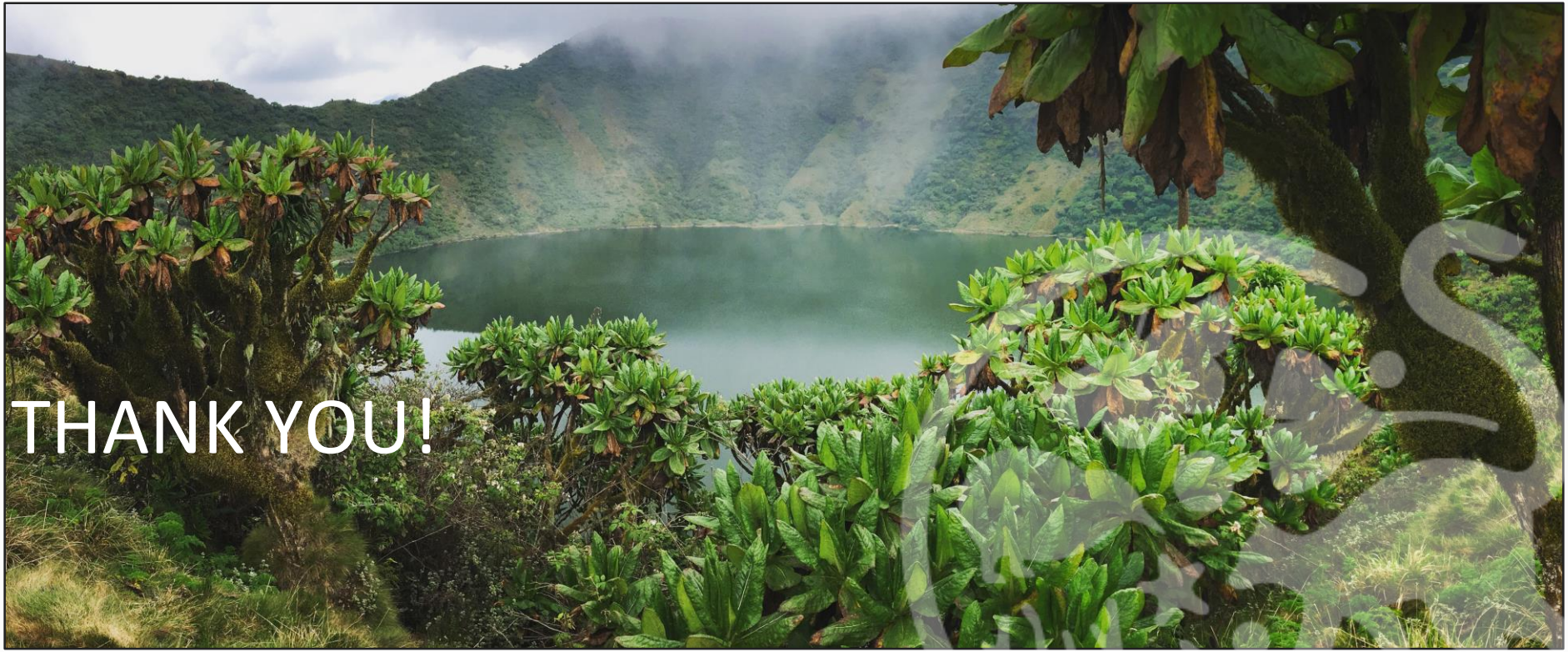
IPBES Summary for Policymakers

INTEGRATING BIODIVERSITY INTO SUSTAINABILITY

- There is no single right way to do this. Different people, organisations, regions and countries have different impacts.
- Understand the difference between biodiversity loss and climate change. Address them as different problems.
- Every person, organisation, region and country needs to explore its impact and where it can improve.
- Explore. Learn. Network. ACT!

BIODIVERSITY IS KEY FOR A SUSTAINABLE FUTURE





THANK YOU!

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