



Sustainability Assembly

Wed 19 February

1- 5.30 pm

Jubilee Lecture Theatre



[#SustainableSussex](#)

[#GoGreener](#)

Sustainability Assembly

Session 1: Towards Sustainability

Welcome & Chair: Ijlal Khalid

Introduction: Adam Tickell

Sustainability: Melissa Lazenby

Climate Breakdown: Harry Jenkinson

Biodiversity Crisis: Sam Ruggiero-Cakir



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Session 1: Towards Sustainability



Welcome & Introduction

Ijlal Khalid

Society & Citizenship Officer, SSU



Sustainability Assembly: Introduction

The Why?

- Climate Breakdown
 - Campus Community
 - Declaration of Climate Emergency
 - Institutional Responsibility - University of Sussex and University of Sussex Students' Union
 - Sustainable solutions - approach for a better future
-
- Need collaboration and partnership, that fosters active collectives which can come together and take action as a campus community

The Idea

- Sustainability Assembly - chance to create a collective movement
- Discuss and initiate conversations on sustainable solutions.
- Identify actions for the University and the Students' Union.
- Presentations will act as starting points for discussion - please share ideas, comments, questions.
- Feed into specific specialised working groups to look for implementable solutions

House Rules

- Programme for the day
- Panel will take questions and want this to be a discussion focused event
- Please be respectful and understanding of each other
- Post your questions during the discussions and post ideas for sustainable solutions to PollEverywhere

Post your questions at **[PollEv.com/sustainable](https://pollev.com/sustainable)**

or Text **SUSTAINABLE** to **07480 781235** once to join, then text your question

- Refreshments and access break(s)
- Post-its during tea/coffee break to write down ideas for sustainable solutions

University of Sussex Students' Union

If you are passionate about Sustainability!

- Nominations for Students' Union Sustainability Committee are open (<https://www.sussexstudent.com/elections/posts/216/>) - nominations close Friday
- Nominate yourself to be a Students' Union Full-time Officer (Student Living & Sustainability Officer) <https://www.sussexstudent.com/elections/nominations/209/> nominations close Thursday

Sustainability Assembly

Session 1: Towards Sustainability



Introduction

Adam Tickell

Vice Chancellor, University of Sussex



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Sustainability

Melissa Lazenby

Lecturer in Climate Change, Global Studies

US
UNIVERSITY
OF SUSSEX

STUDENTS'
UNION

Sussex Sustainability Assembly



Dr. Melissa Lazenby
Global Studies - Department of Geography
Lecturer in Climate Change

What does sustainability actually mean?

- ▶ “The ability to exist constantly”
- ▶ “The ability to be maintained at a certain rate or level”
- ▶ “The possibility that human and other forms of life on earth will flourish forever”
- ▶ *Development that “meets the needs of the present generation without compromising the ability of future generations to meet their own needs.”*
Brundtland Commission 1987



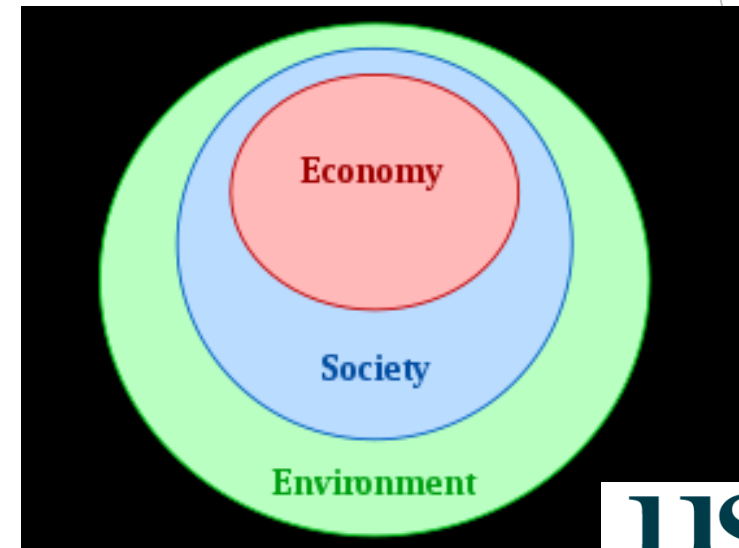
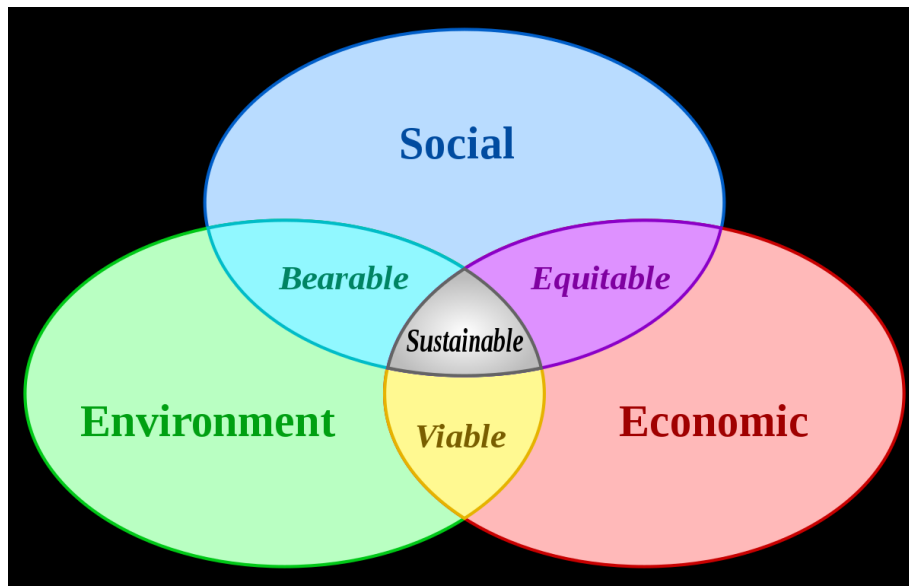
“Sustainability” is like “World Peace”

- ▶ Almost everyone agrees with it
- ▶ Common goal most people want to achieve
- ▶ Pinning it down in practice is much more difficult

“Earth provides enough to satisfy every man’s need, but not every man’s greed” Mahatma Gandhi
(1947)

3 Pillars of Sustainability

- ▶ Environment, Economic and Social (+Cultural)
- ▶ Synergies and trade-offs between the different pillars
- ▶ E.g. Reducing carbon emissions in developing countries (environment ↑ vs. economic development ↓)
- ▶ “Ecosystems sustain societies that create economies. It does not work the other way round.” WWF (2014)

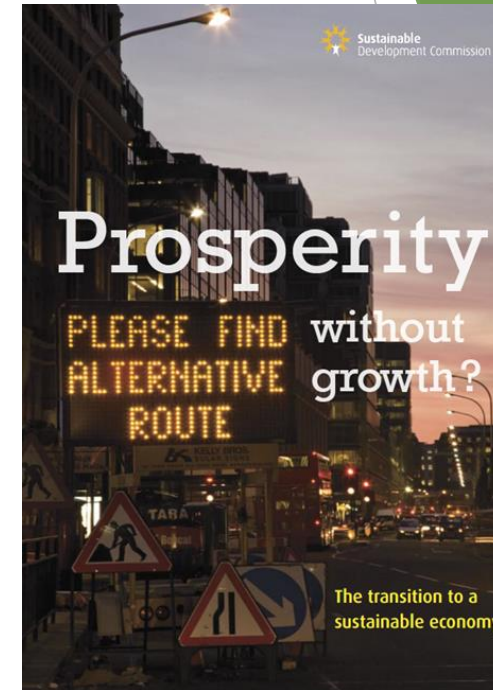


Weak vs. Strong Sustainability

- ▶ Weak/shallow sustainability - expand useful value of resources through renewable resources, greater efficiency, technological solutions
- ▶ Strong sustainability/deep ecology - revise demands we make on the Earth i.e. consume less



- ▶ Earth as finite: need for radical re-think
- ▶ Nature has the right to remain unmolested
- ▶ Need to change from a world view that sees nature simply as a resource for human purposes
- ▶ Belief in essential value of nature and alternative visions of “development” and “growth”



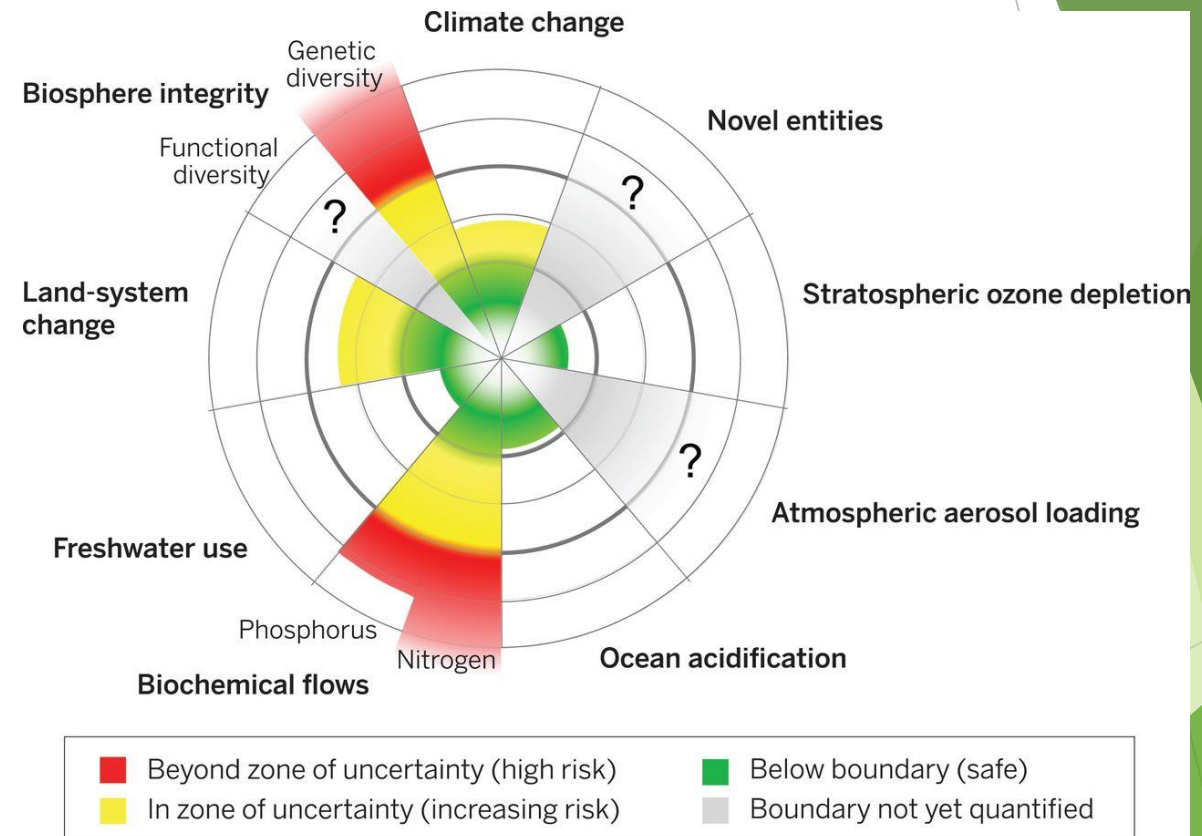
Sustainability - Planetary Boundaries

- ▶ The planetary boundary concept, introduced in 2009, aimed to define the environmental limits within which humanity can safely operate

- ▶ 9 Planetary Boundaries

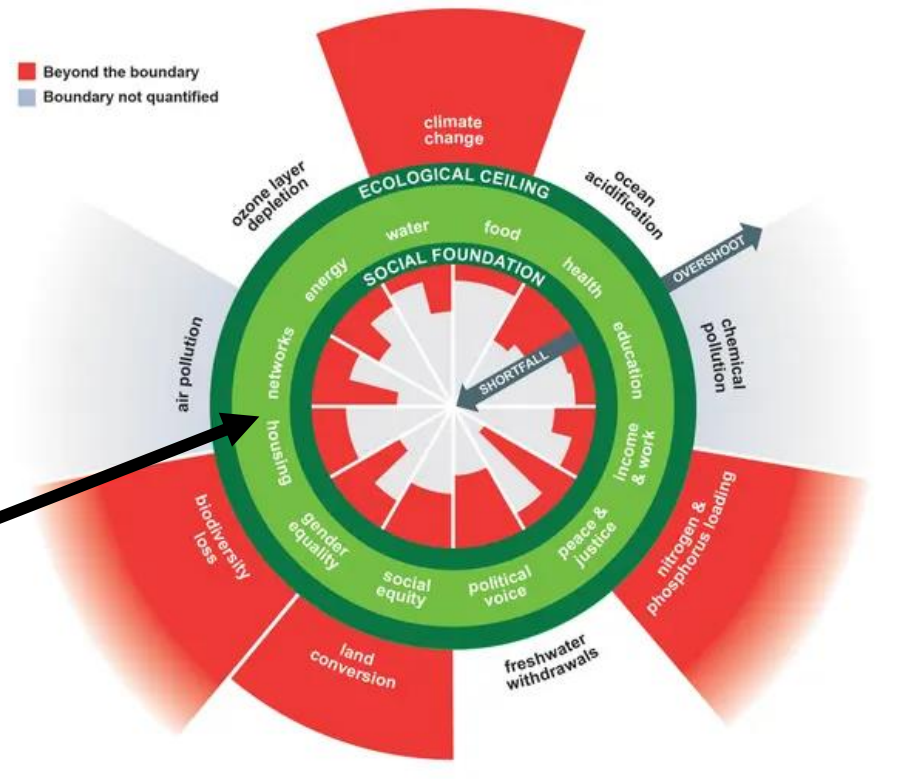
- ▶ 4 already past safe threshold

- ▶ Climate Change
- ▶ Biosphere integrity
- ▶ Land-system change
- ▶ Biochemical flows



Sustainability-The Doughnut

- ▶ 1.) Inner ring represents sufficient resources required to lead a good life: food, clean water, energy, education, healthcare, equity.
- ▶ 2.) Outer ring consists of the Earth's enviro limits, beyond which we inflict dangerous levels of climate change, ozone depletion, pollution, biodiversity loss (9 planetary boundaries)
- ▶ The doughnut itself - is the “*ecologically safe and socially just space*” in which humanity should strive to live. The purpose of *economics* should be to help us enter that space and stay there



How to manage this complex issue - 17 SDGs

Interactions among SDGs: synergies & trade-offs

Sustainable Development Goals



- ▶ New study in Global Sustainability (2019) states: “Extraordinary efforts will be needed to achieve all SDGs within planetary boundaries.” Jörgen Randers, lead author
- ▶ With business-as-usual, the 17 SDGs will not be achieved by 2030 or even 2050

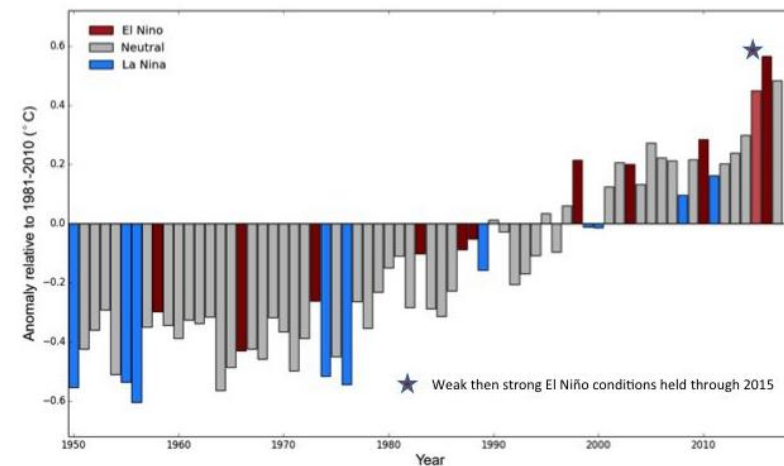
Planetary Emergency

- ▶ Climate change, biodiversity loss, habitat destruction, pollution and deforestation are just some of the crises caused by unsustainable human activity



- ▶ All the warning lights are flashing:
 - ▶ hottest years on record
 - ▶ coral bleaching
 - ▶ rising sea levels
 - ▶ loss of tropical forests
 - ▶ wild populations declining
 - ▶ a million species threatened with extinction

2017 – the warmest non-El Niño year on record



- ▶ We would be failing in our duty to society if we didn't pass these warnings on

Planetary emergency

- ▶ Our patterns of **economic growth, population growth, development, production & consumption** are pushing Earth's life-support systems beyond their natural boundaries
- ▶ **Politics** continues to cripple efforts in fighting the planetary emergency, however the **science** remains as unequivocal & irrefutable as ever
- ▶ Already crossed a number of '**tipping points**' in the Earth system
- ▶ Impacts of **climate change & ecological** destruction are more severe and are manifesting themselves earlier than many scientific predictions
- ▶ Therefore it is important that we act NOW!
- ▶ **Transformative change** is necessary
- ▶ Solutions: paths to sustainability

Sustainability

Sustainability should be viewed as
humanity's target goal of human-
ecosystem equilibrium

It's the question of our generation:

Can we find sustainable solutions for
energy, water, food, stuff?



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Climate Breakdown

Harry Jenkinson

BA Anthropology & International Development,
Global Studies





Climate Breakdown

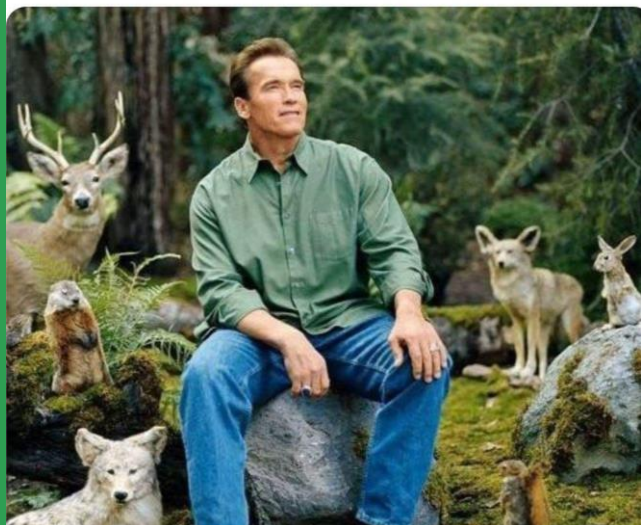
What it is and what we can do about it



In the popular imagination...



when you remember to bring your reusable bag to the grocery store

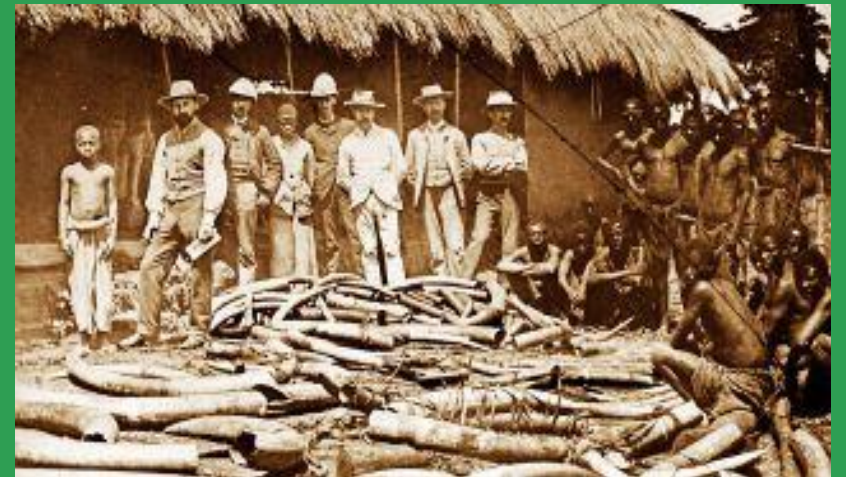


What' not shown...



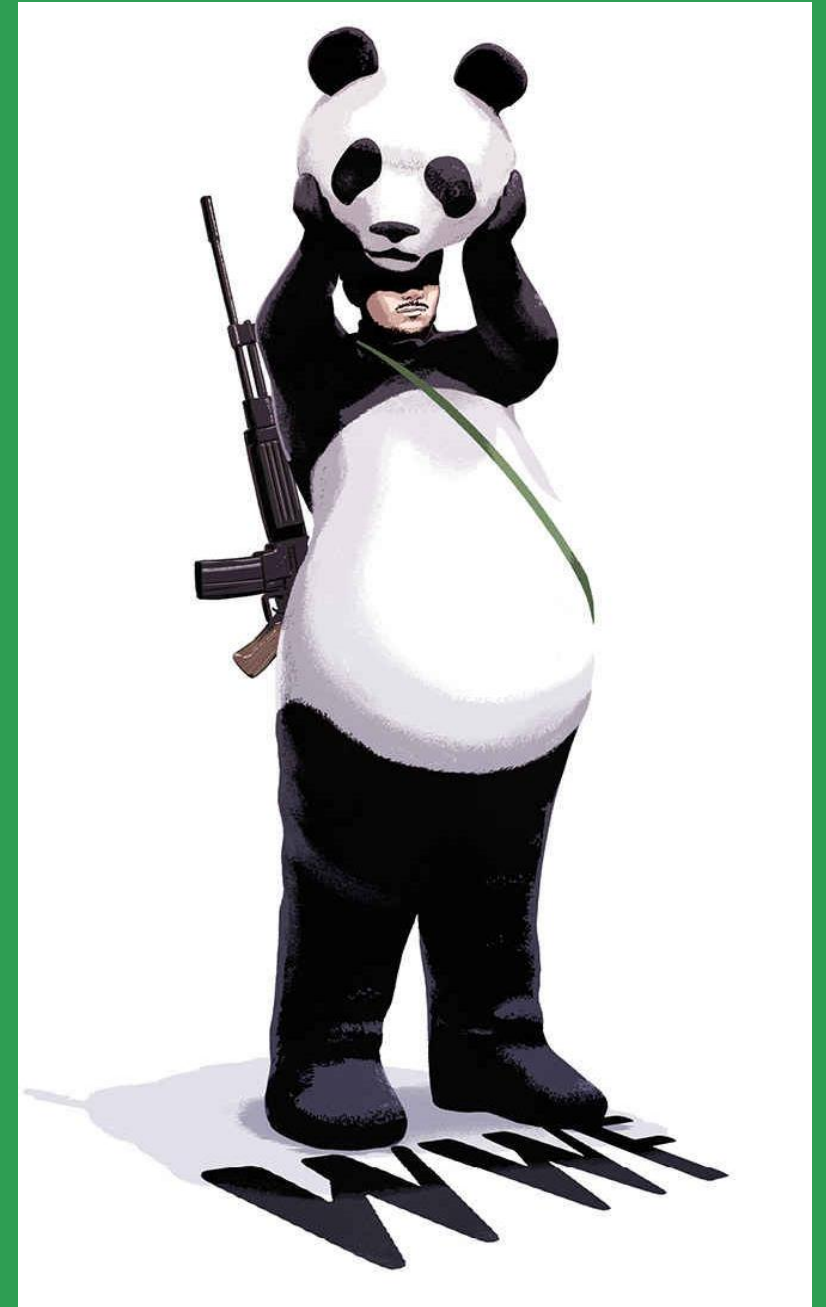
Explaining colonialism's role in climate breakdown

- The climate emergency comes from the birth of industrial capitalism.
- This was fuelled by the unpaid labour of millions of enslaved African people and the systematic looting and destruction of environments across the Global South.
- Global South countries are facing the worst impacts of climate change today because they were *made* poor by colonialism.



What not to do about it

- Say no climate austerity - We can cut carbon emissions without cutting services for students and staff.
- Say no to ecofascism - We must NOT pander to the far-right rhetoric and blame international students for carbon emissions. Everyone should be welcome at Sussex.
- Say no to tokenism - Chopping down 10 trees and planting 1 more is not a solution. “Carbon offsetting” only shifts responsibilities.





THIS IS NOT SUSTAINABLE

What Sussex *can* do to help

1. New internationalism - Supporting and cooperating with international movements which fight for climate justice like Youth Strike and the Free West Papua Campaign.

2. Big polluters out – Reinstate the ban on Nestlé and Coca-Cola products. Remove Barclays from campus; in 3 years they invested £85 billion in fossil fuels.





3. Green New Deal for Sussex

- Green jobs - Invest in Green, sustainable, living wage jobs for staff and students rather than unsustainable, unaffordable buildings.
- Decarbonise – Transform Sussex by ensuring our energy is renewable and our supply chains are ethical and not polluting.
- Value US! – Value the skills of Sussex students and our proud history of environmental justice campaigns.



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Biodiversity Crisis

Sam Ruggiero-Cakir

MSc Zoology, Life Sciences


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Biodiversity

Sam Ruggiero-Cakir

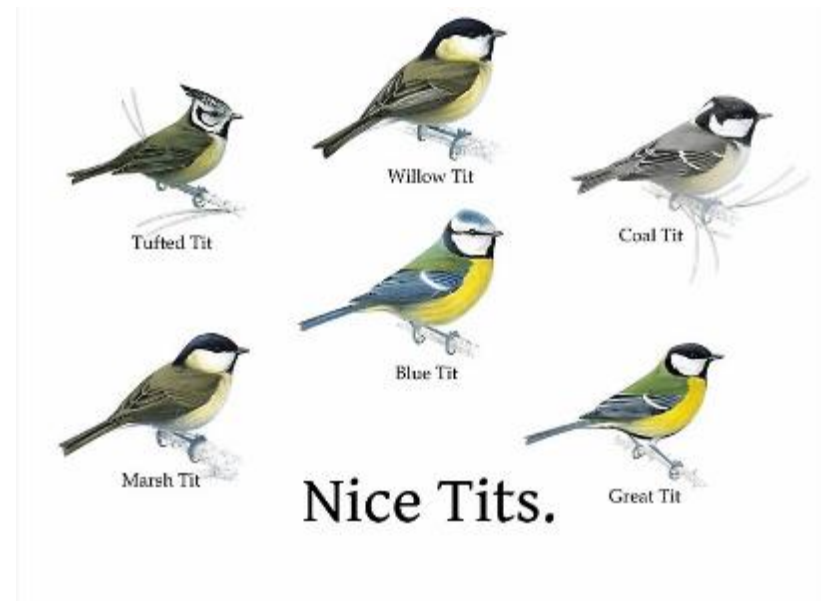


In ten minutes you will...

- Understand Biodiversity
- Understand the purpose of Biodiversity
- Understand the threats to Biodiversity
- Have existential feelings of terror and doom

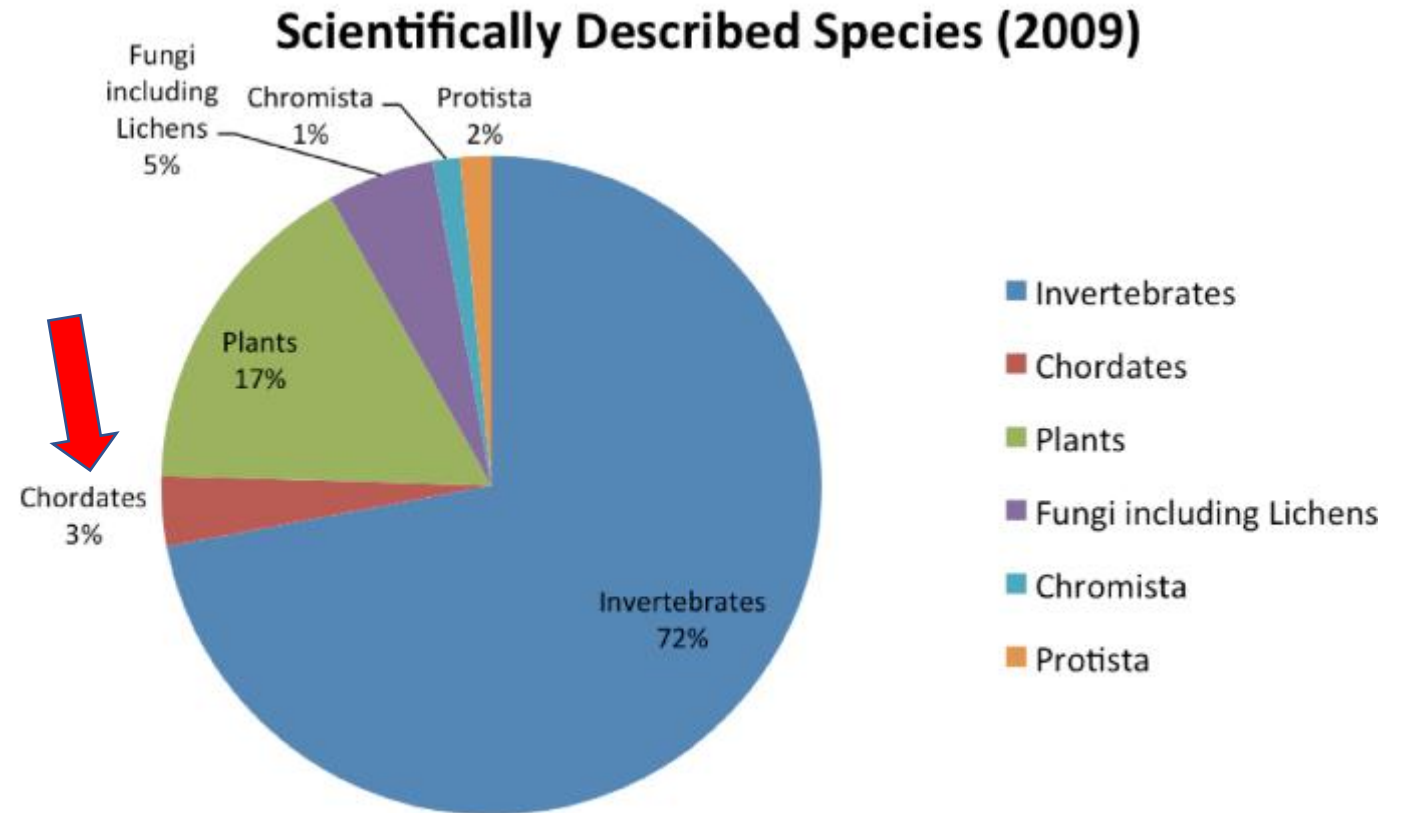
What is Biodiversity

- The variety of life in a habitat/location/ecosystem
- The similarities and differences between living things
- Species -> Genes

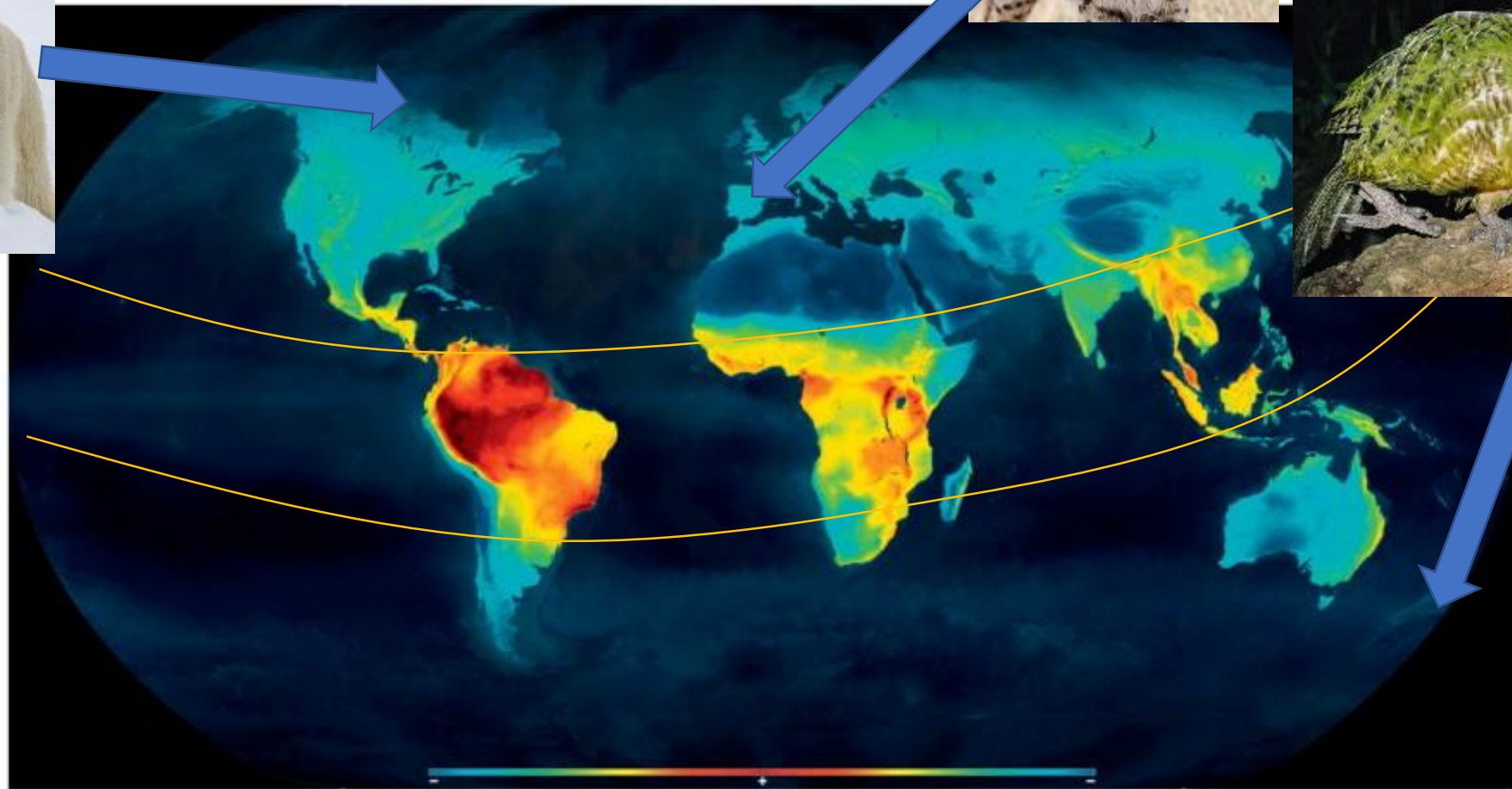


Biodiversity – How many?

- ~2 million species described (somewhere)
- Maybe ~10 million species not described



Where is Biodiversity?



Why do we need biodiversity?

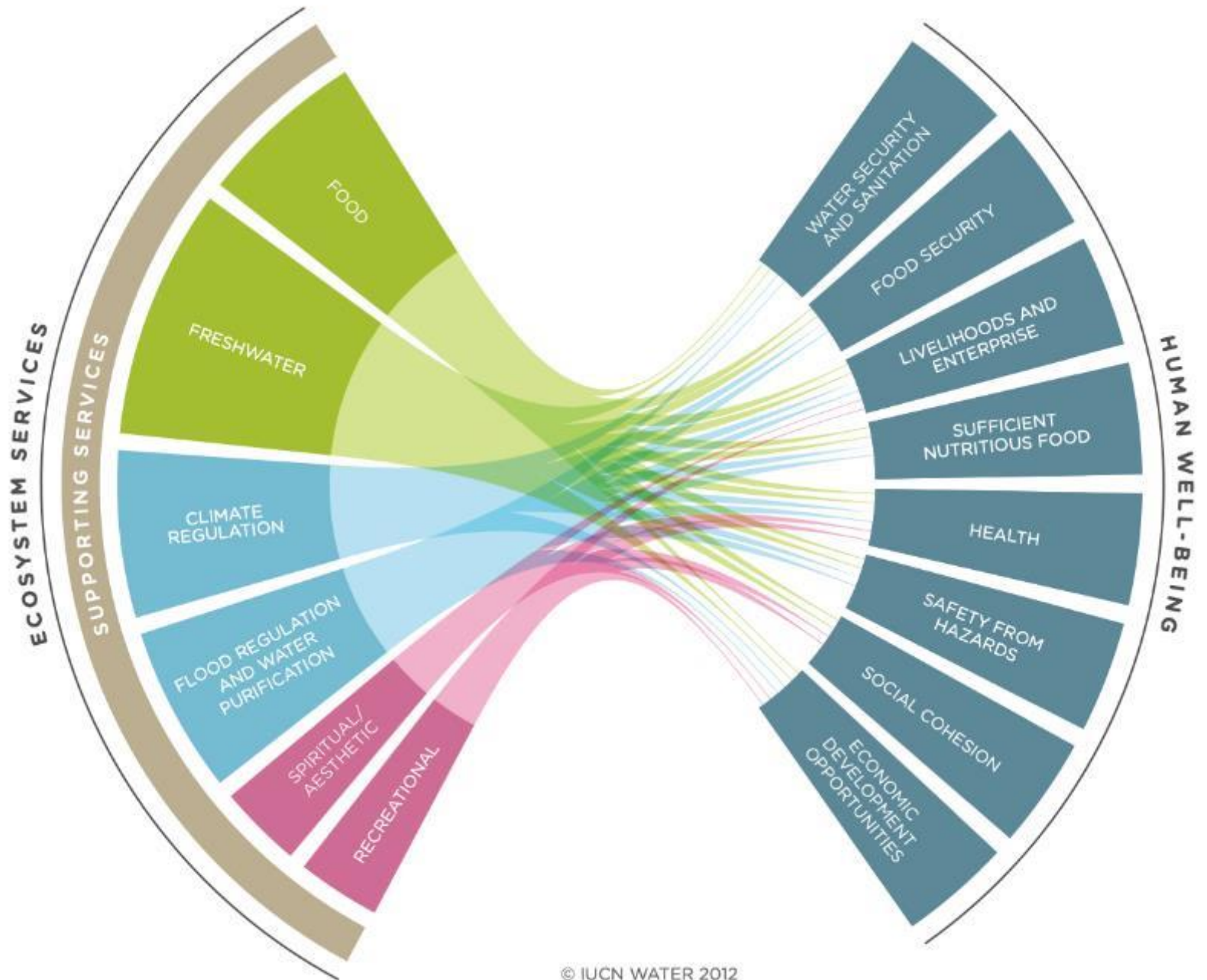
- “Biodiversity is vital to maintain healthy ecosystems”

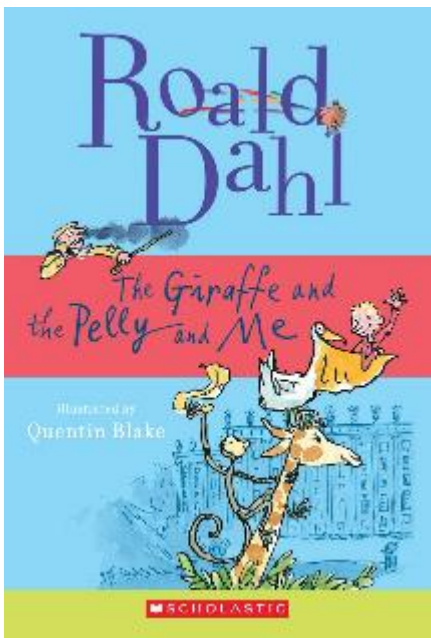
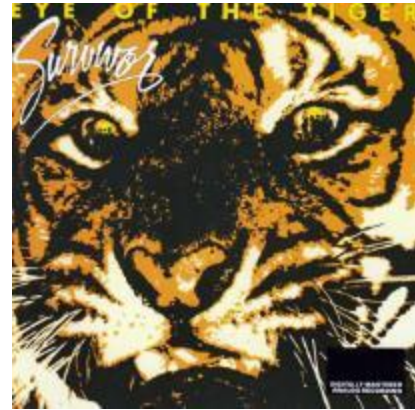


Why do we need 'healthy' ecosystems?

Ecosystem Services

125,000,000,000,000
USD/Year
(125 trillion)





The Biodiversity Crisis

Where species went extinct

761 species have gone extinct in recent times*

Click on the circles to see their picture and more information

☐ Critically endangered species » ☐ In numbers »

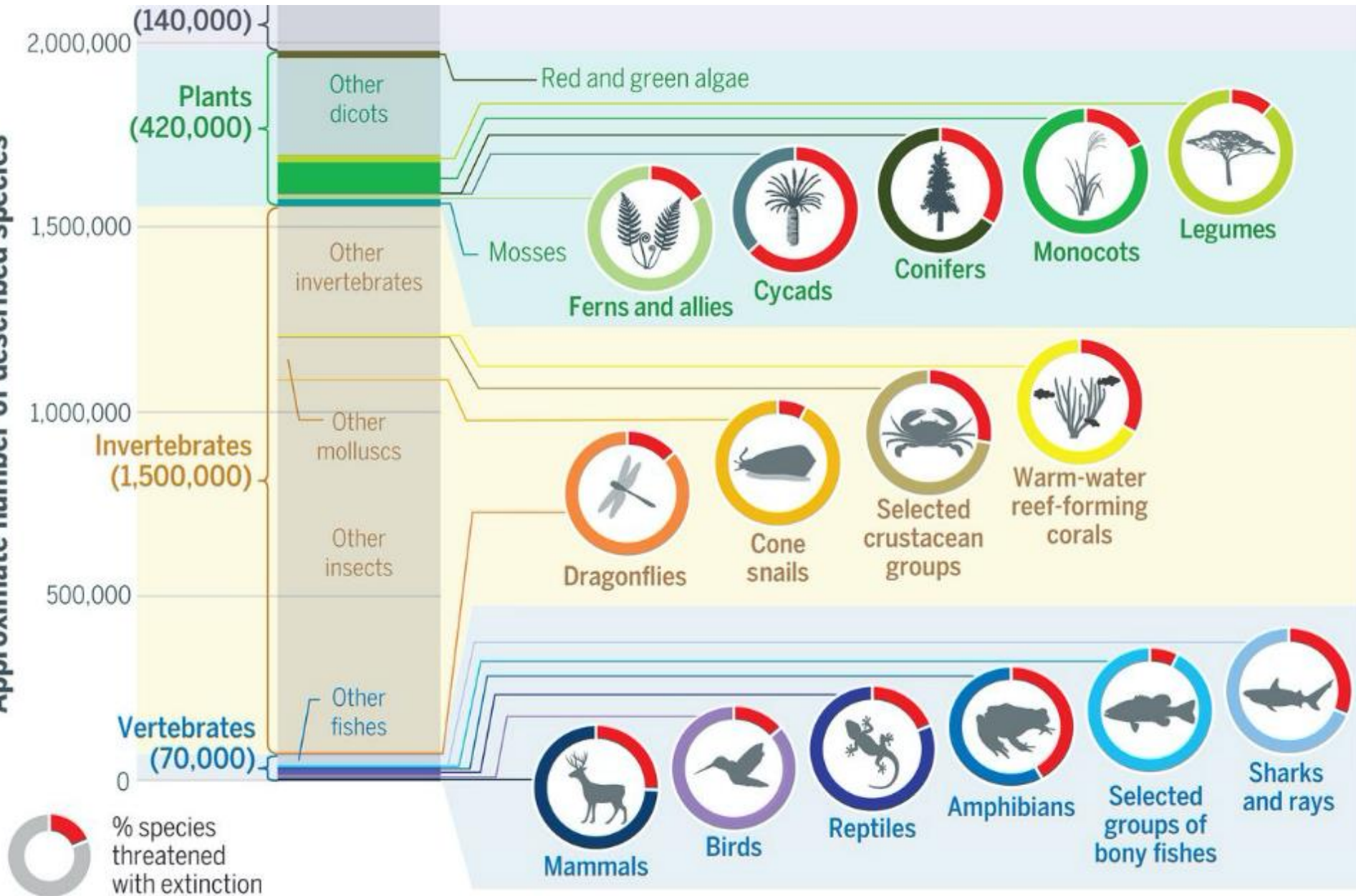


SOURCE: IUCN RED LIST

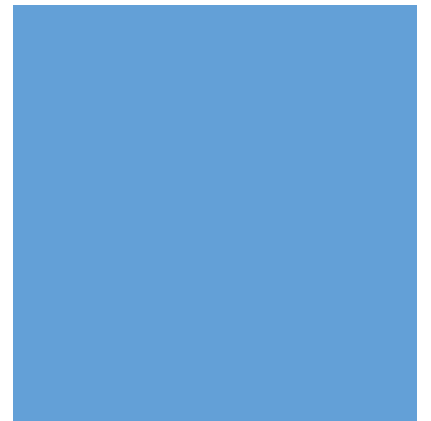
*Red list count began in 1996 but includes extinctions going back to 1500

- Extinction rate 100-1000 times historical rate
- Terrestrial ecological communities lost more than 20% of their original biodiversity
- Large terrestrial mammals extirpated from 75% of their natural ranges
- Estimated 1 million species of animals and plants threatened with extinction

Approximate number of described species



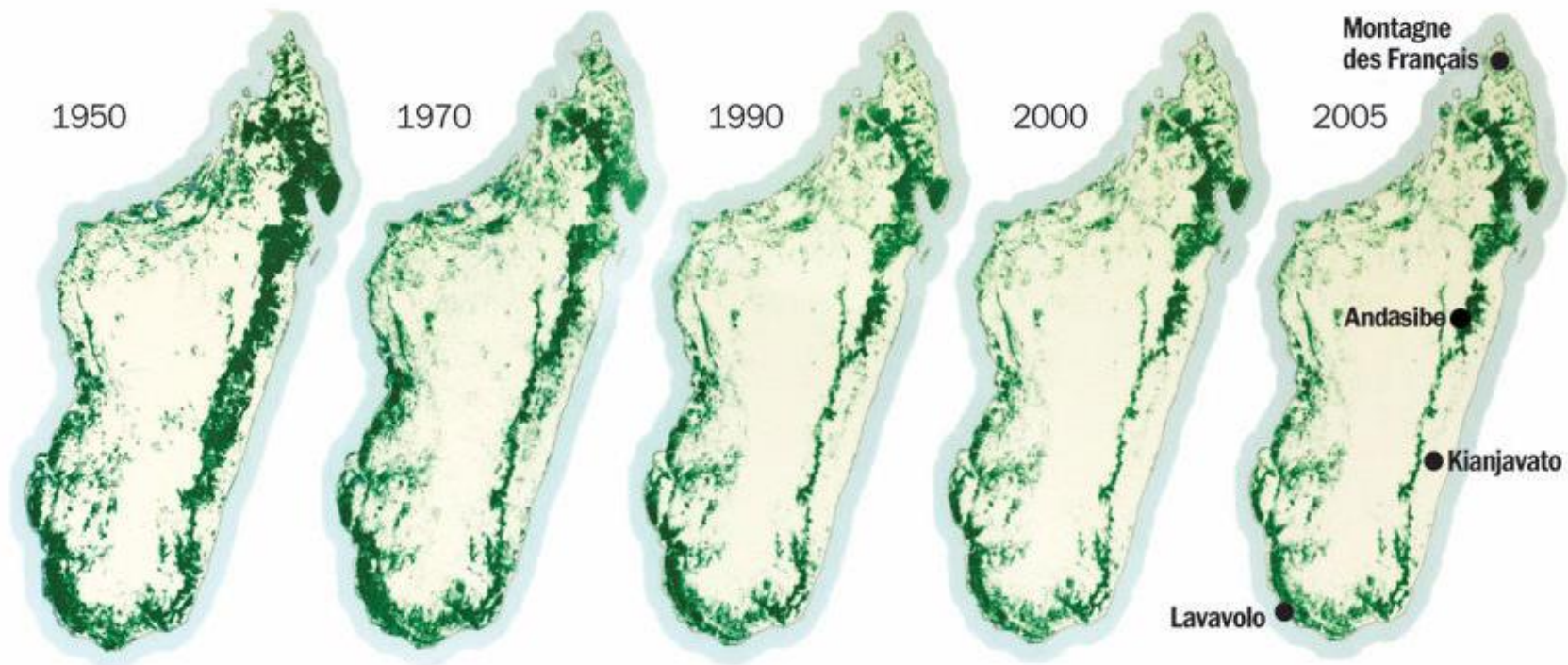
 % species threatened with extinction



Why?

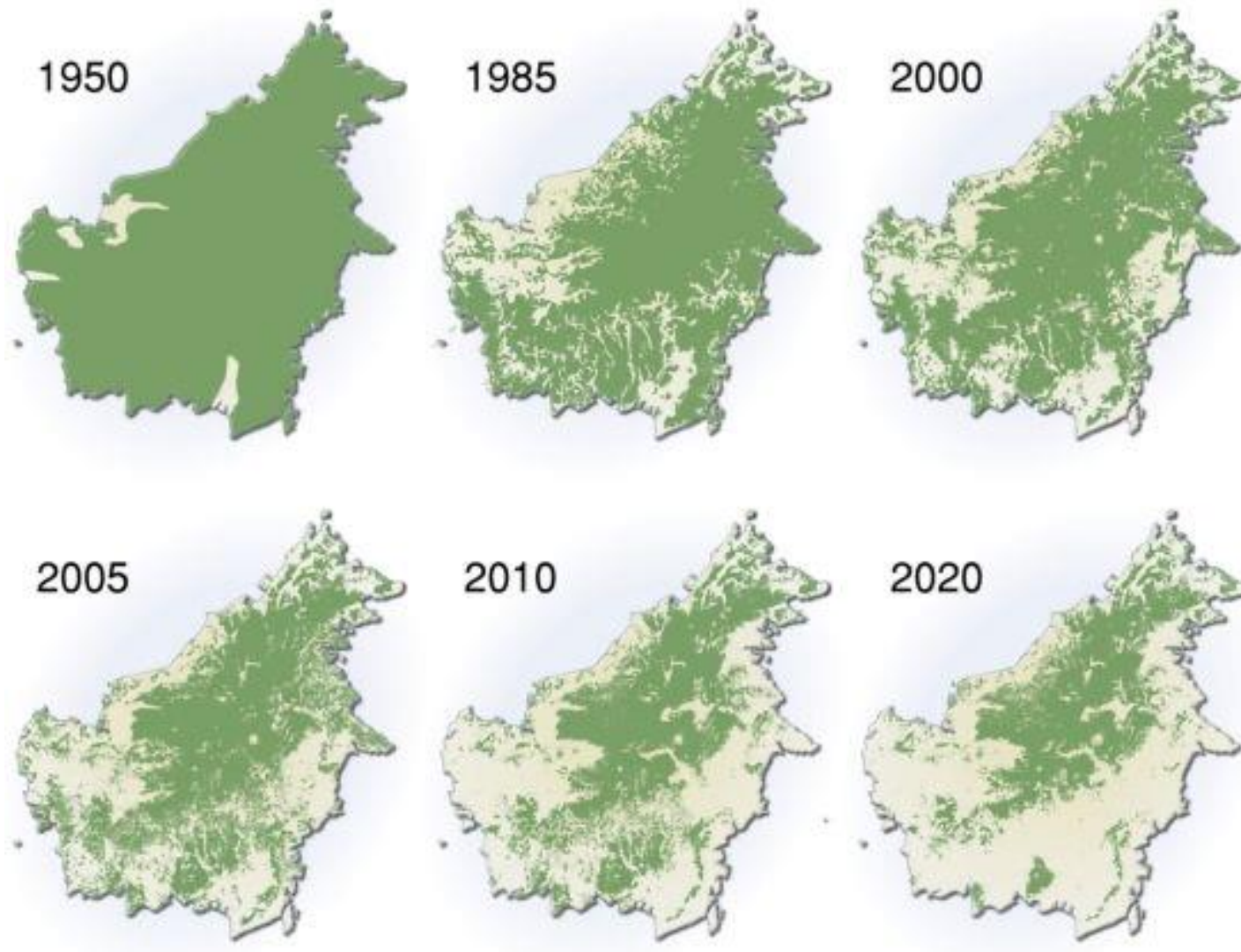


Madagascar

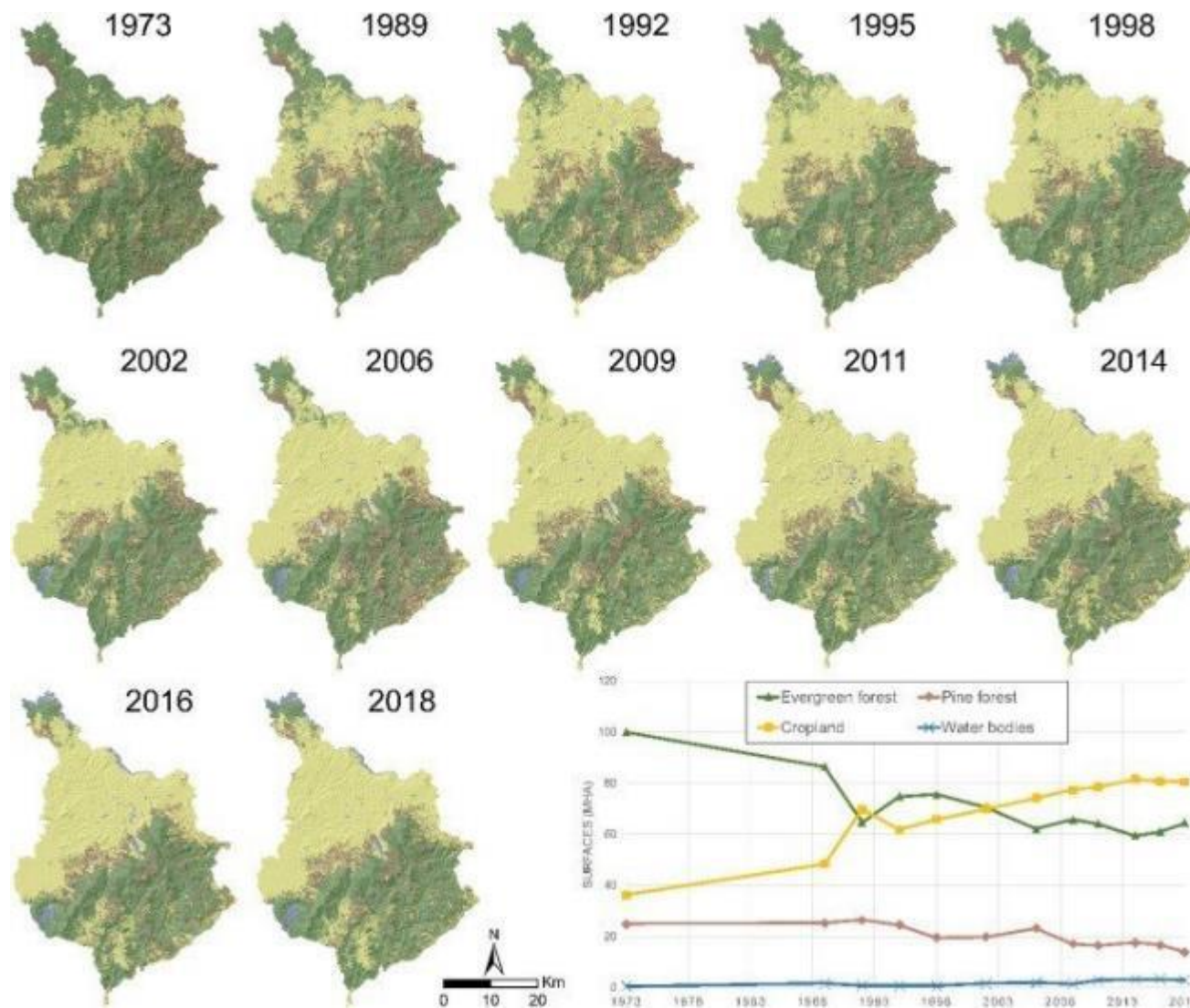


THE WORLD-HERALD

Borneo



Vietnam




Greed – Over Consumption

- The world's vegetation has halved over human history
- Forests now span only 68% of their preindustrial extent



Conclusion

- Biodiversity = The variety of life in terms of species and genes
- Biodiversity is most rich in the tropics
- Biodiversity serves as an indicator of ecosystem well-being
- Ecosystem services are the fundamental source of human livelihood
- Biodiversity is how we live, but also why 
- Destruction of habitat is the greatest threat to biodiversity
- All conservation must revolve around stopping any more destruction



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