

A matter of ethics

"we have the scientific knowledge to save the planet, but do we have the moral fortitude, and do we care enough?"

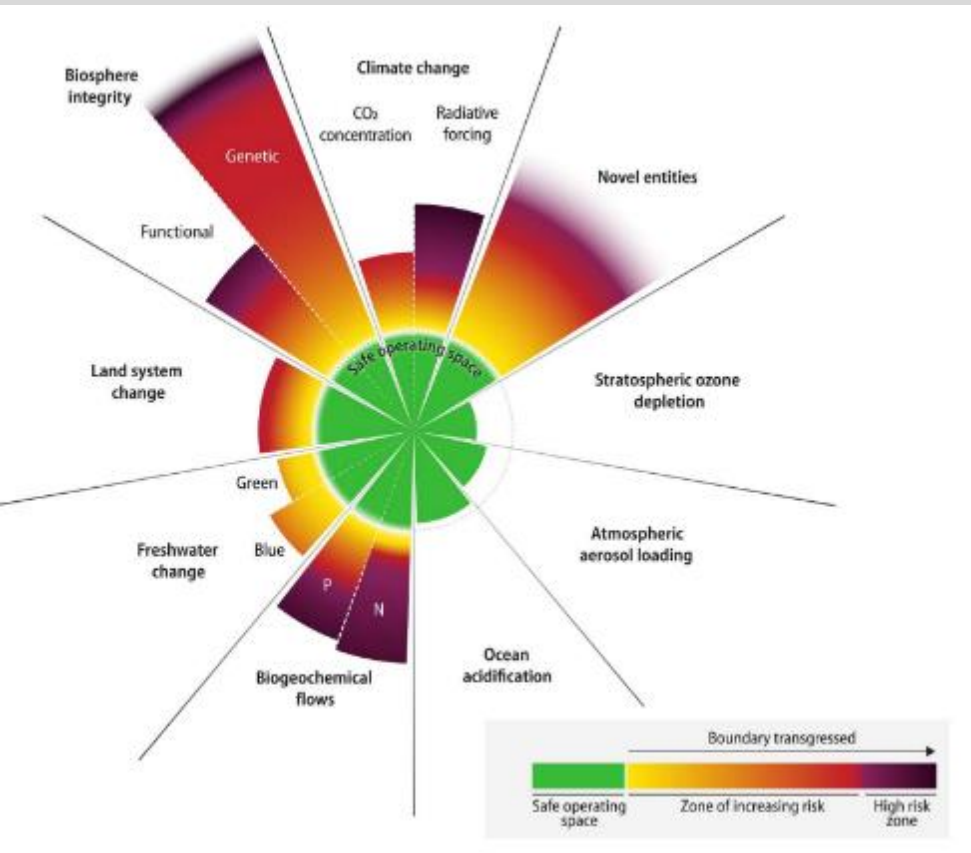


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www.centreforeconics.org

State of the planet 2023: Earth beyond planetary boundaries

The planetary boundaries framework: Nine processes critical for maintaining the stability and resilience of Earth system



Earth beyond six of nine planetary boundaries

(Richardson et al. 2023)

six of the nine planetary boundaries are transgressed, suggesting that Earth is now well outside of the safe operating space for humanity

Human population & lifestyle (eating habits) have changed the natural order on Earth

Category	Total Mass (Mt)	%
Domesticated Mammals	651	60%
Humans	394	36%
Wild Marine Mammals	40	3.6%
Wild Terrestrial Mammals	24	2.2%

www.visualcapitalist.com

Visualizing the Global Biomass of Mammalian Life

Humans share the living world with **~6,495 other mammals**. We break down and compare the total composition of mammals in terms of their biomass.

The Measure of Biomass

Biomass is reported by multiplying the estimated number of species (from census data) with each species' average body mass.

1 cube represents 20 million tonnes (or 20 Mt, megatonne)
Each individual, tiny cube weighs ~20,000 tonnes.



Ratio of cattle to other mammalian life:



Humans

394 Mt

Wild Marine Mammals

40 Mt



Domesticated Mammals

651 Mt

Cattle 416 Mt

Buffalo 68 Mt

Sheep 39 Mt

Swine 38 Mt

Goats 32 Mt

Dogs 22 Mt

Horses 16 Mt

Camels & camelids 9 Mt

Donkeys & mules 8 Mt

Cats 2 Mt

Other 1 Mt

Wild Terrestrial Mammals

24 Mt



The global mammalian biomass is **completely dominated by humans and domesticated mammals**, including livestock and pets.

SOURCE Greenspoon, L. et al. 2023. The global biomass of wild mammals. Proceedings of the National Academy of Sciences 120. <https://doi.org/10.1073/pnas.2204892120>



RESEARCH, WRITING & DESIGN Mark Belan

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From Holocene Era (our baseline reference) to Anthropocene Era; Forests were key drivers of the climate system.

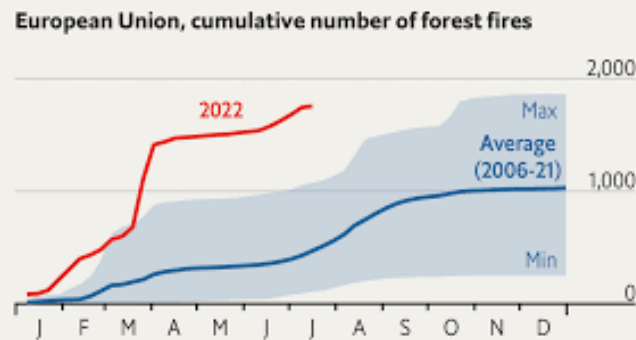
**Global reduction in forests for
food production is the
dominant factor representing
all land system change**

(Richardson et al. 2023)



The World's forest in decline

Map of Europe's forest fires shows devastating scale of wildfires in 2022 / 2023



Not just fires.

Die-back in Germany's forests, Harz Mountain, June 2023



The changing natural world order and a modern world in crisis

Global Risks Report 2023

Global Risks Report 2023

Top 10 Risks

"Please estimate the likely impact (severity) of the following risks over a 2-year and 10-year period"



2 years



10 years



Risk categories

Economic Environmental Geopolitical Societal Technological

Source: World Economic Forum, Global Risks Perception Survey 2022-2023

“Biodiversity loss and ecosystem collapse”
one of the fastest deteriorating global risks over the next decade,

Climate mitigation and risky trade-offs deals and plans are set up, while nature collapses

How worried are we?

Growing anxiety in the younger generations

Anxiety about planet health has shifted
political momentum from
parliament/government to the streets
Why?



The widening rift between People and Political establishment over the state of the planet

In his Channel 4 documentary, Packham explored whether it's *ethically acceptable* to break the law in the name of protest



When law abiding citizens feel compelled to act in the face of political sleep-walking through matters of environmental crises

sky news

Greta Thunberg: Climate activist charged with disobeying police order at protest

Chris Packham says Rosebank oil field approval is 'abject madness' during protest outside Defra



**World view of the environment is shifting;
It is increasingly perceived as a moral issue**



**After Greta Thunberg's UN
address, an ethicist weighs in on
our moral failure to act on
climate change**

September 25, 2019 11:14pm BST

UN chief accused some governments and businesses of “lying” and said **it was the countries that are increasing production of fossil fuels, not climate activists, that are “truly dangerous radicals.”**



Video: UN Secretary accuses governments of 'lying' about climate change policies

Hardening rhetoric: “Dangerous radicals”; “Militants”

Suella Braverman slams ‘militant’ climate activism and Chris Packham documentary



UK go-ahead for North Sea oil and gas field angers environmental groups



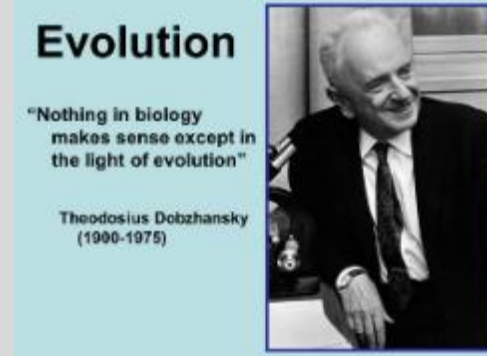
So, what is preventing radical transformational change?

Is our species conflicted? – the battle between evolutionary instinct and the rationale being



Evolution and environmental fatalism

Dobzhansky, T. (1973) Nothing in Biology Makes Sense except in the Light of Evolution. The American Biology Teacher, Vol. 35, No. 3



“nothing in human affairs—including much of economic and socio-political behaviour— makes sense except in the light of evolution”

(adapted from Dobzhansky 1973, p.449)

The current state of the World and the threat that it poses to humanity is a **natural product** of human evolution.



“humanity’s subconscious, genetic predisposition is to expand, a tendency reinforced by the socially constructed economic narrative of continuous material growth” These qualities have become maladapted & put humanity at risk

Must we teach ourselves 'sustaincentrism', and will it save the planet?

Environmental Ethics is contingent on the interactions of multiple factors / actors in a complex and rapidly changing world



Environmental Ethics

Sets out the case / argument for protecting natural entities, and for the sustainable use of natural resources.

But environmental ethics exposes a conflicted narrative in human cultures

Extending ethical rights to species & ecosystems creates a moral maze and dilemma

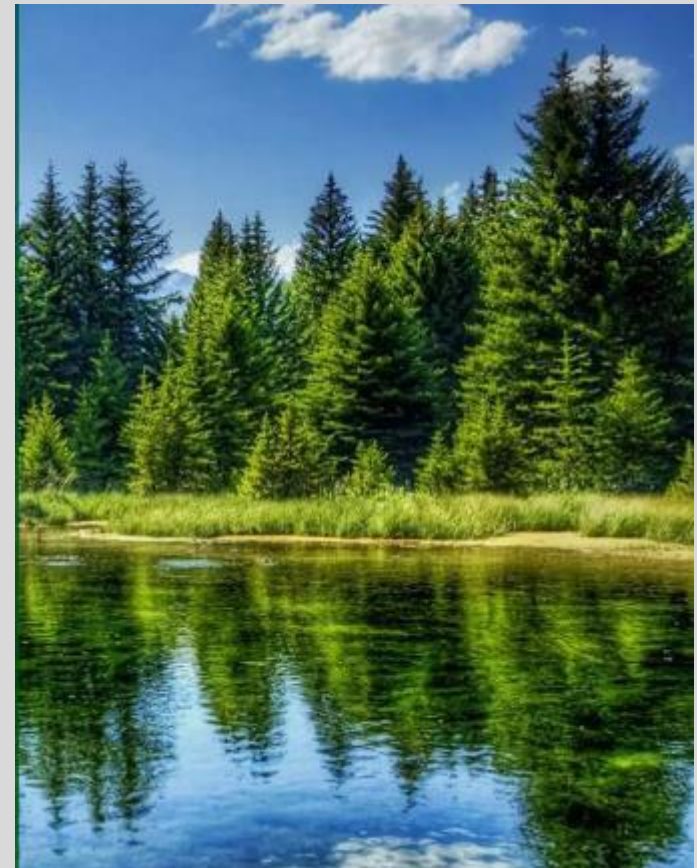
We protect wild sheep (Bighorn), that are preyed on by mountain lion while we readily kill and eat sheep, yet, humans have every right not to be eaten by either other humans or mountain lion.

There are no rights in nature, wild animals are indifferent to the welfare of others.
(Rolston 1991)



Environmental ethics & the 'moral maze' in our daily lives.

- Are we justified in continued deforestation to secure food provision
- Are we justified in perpetuating a free-willed approach to population growth?
- Are we justified in prioritizing quality life expectations over protection of nature?
- Are we justified in prioritizing space for people over space for nature?
- Are we justified in prioritising utility values of nature over intrinsic values?



Which philosophical pathway do we choose to forge
a new relationship with the natural world?

Marshall's categories of environmental ethics

Libertarian Extension (equal rights to
all living beings - ***Biocentrism***)

Ecological Extension (fundamental
interdependence of all living beings -
Ecocentrism)

Conservation Ethics (utilitarian value
of nature – ***Anthropocentrism***)

(Marshall 1993)



Normative ethics: Transitioning ethics into legislative policy

Normative ethics - How we should act in accordance with “**what is right & wrong**”

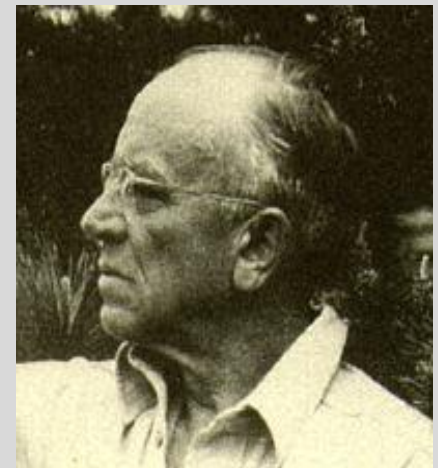
‘recognition heuristics’

(Haila & Levins 1992)

*“A thing is **right** when it tends to preserve the integrity, stability, and beauty of the biotic community. It is **wrong** when it tends otherwise” (Leopold 1949)*

Ecological rationality

(Haila 1998)



(Leopold 1949)

where do we see clear evidence of Ecological extension ethics underpinning policy?

European Parliament agrees on the recognition of ecocide in EU legislation

European Parliament agrees on the recognition of ecocide in EU legislation

Sunday, 2 April 2023



Amazon fires, credit: WWF Brazil/Michael Dantas

Huge Milestone! UK Law Now Recognises Animals as Being Sentient



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Posted by [Margarita Sachkova](#) on April 28, 2022 | [Permalink](#)

Update (28 April 2022): The Animal Welfare (Sentience) Act 2022 has received royal assent. Finally, UK law recognises animals as being sentient.



What Is the Animal Welfare (Sentience) Act 2022?

The Animal Welfare (Sentience) Act 2022 will recognise in law what we've long known: that other animals are living, feeling beings with complex thoughts and emotions, each able to experience pain, fear, love, and joy.

Anyone who has spent time with an animal knows that they are sentient beings. The science backs this up, too. Soon, UK law will also acknowledge this fact.

‘Truth Centrism’; New theory in Environmental Ethics

a new theory that discusses the human needs and protection of life and nature (Valiallahi 2014)

A component of the environment has the inherent right to exist in a state of minimal intentional interference from other entities (Merchant, 1992; Naess, 1986/2011; Callicott, 1989; Thompson, 1998)



Was Leopold's Land Ethic ahead of its time and is it the ultimate policy framework for truth centrism?

(Aldo Leopold 1949)



<https://www.aldoleopold.org/about/the-land-ethic/>

“When we see land as a community to which we belong, we may begin to use it with love and respect.”

A Land Ethic expands the definition of “community” to include not only humans, but all of the other parts of the Earth, as well: soils, waters, plants, and animals, or what Leopold called “the land.”

**What about our learning journey?
Education must be the gateway to a new, global
social logic, bounded by environmental ethics;**

“environmental citizenship”



*“If your plan is for one year
plant rice. If your plan is for
ten years plant trees. If your
plan is for one hundred years
educate children. ”*

Confucius

Towards transformational change: Building back people's trust: Widening participation & Inclusivity

Environmental ethics, Principles 7 & 8

7 Right to know: Individuals have the right to access information about environmental issues

8 Right to participate: Citizens have the right to participate in environmental decision-making processes.



Will we make it in time?



'Oh dear! Oh dear! I shall be late!'

<https://culturedecanted.com/>



***“We do not inherit the earth
from our parents, we borrow
it from our children”***

Chief Seattle

Thank you