

Economics of Sustainable Management

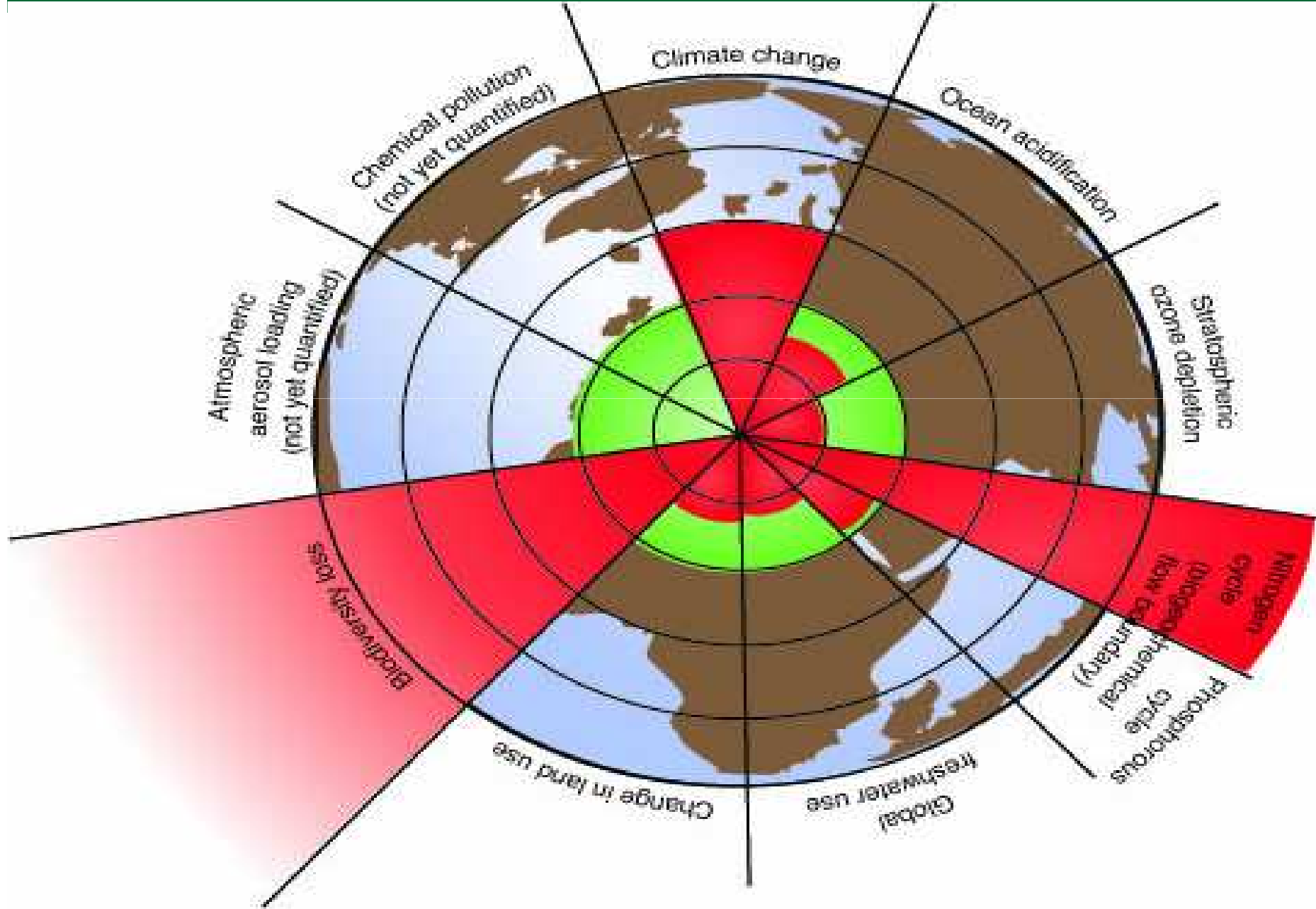
8d. Another view on natural resources

Adopted from Dr Stephan Harding, Resident Ecologist and MSc Co-ordinator
Schumacher College, UK

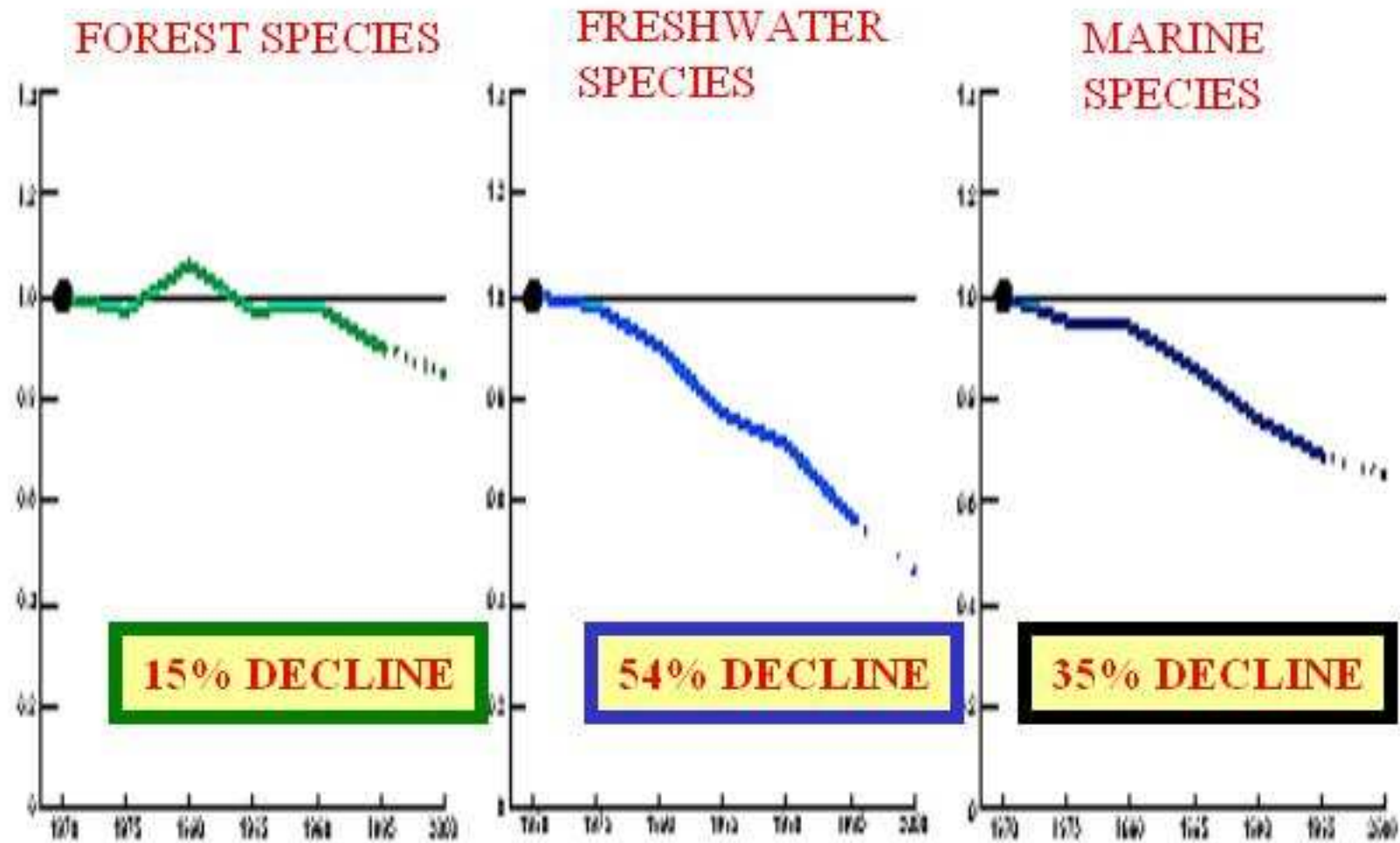


Tento projekt je spolufinancován Evropským sociálním fondem a Státním rozpočtem ČR InoBio – CZ.1.07/2.2.00/28.0018

Planetary boundaries (first published in Nature)



Living Planet Index, 1970-2000



Source: WWF, 2002

LIVING PLANET REPORT 2002 3



The scientific revolution

Major proponents of the Scientific Revolution

Bacon 1561-1626

"We should endeavour to establish and extend the power and dominion of the human race itself over the universe."

"I am leading you to nature to bring her into your service and make her your slave."

Galileo 1564-1642

The book of the universe " .. is written in the language of mathematics, and its characters are triangles, circles and other geometric figures."

"Hence I think that tastes, colours, and so on are no more than mere names."

Descartes 1596-1

"I have described the Earth and the whole visible universe in the manner of a machine."

"... and therefore to become like Lords and possessors of nature."

Newton 1642-1727

"For the rays (of light) to speak properly are not coloured. In them there is nothing else than a certain power and disposition to stir up a sensation of this or that colour."

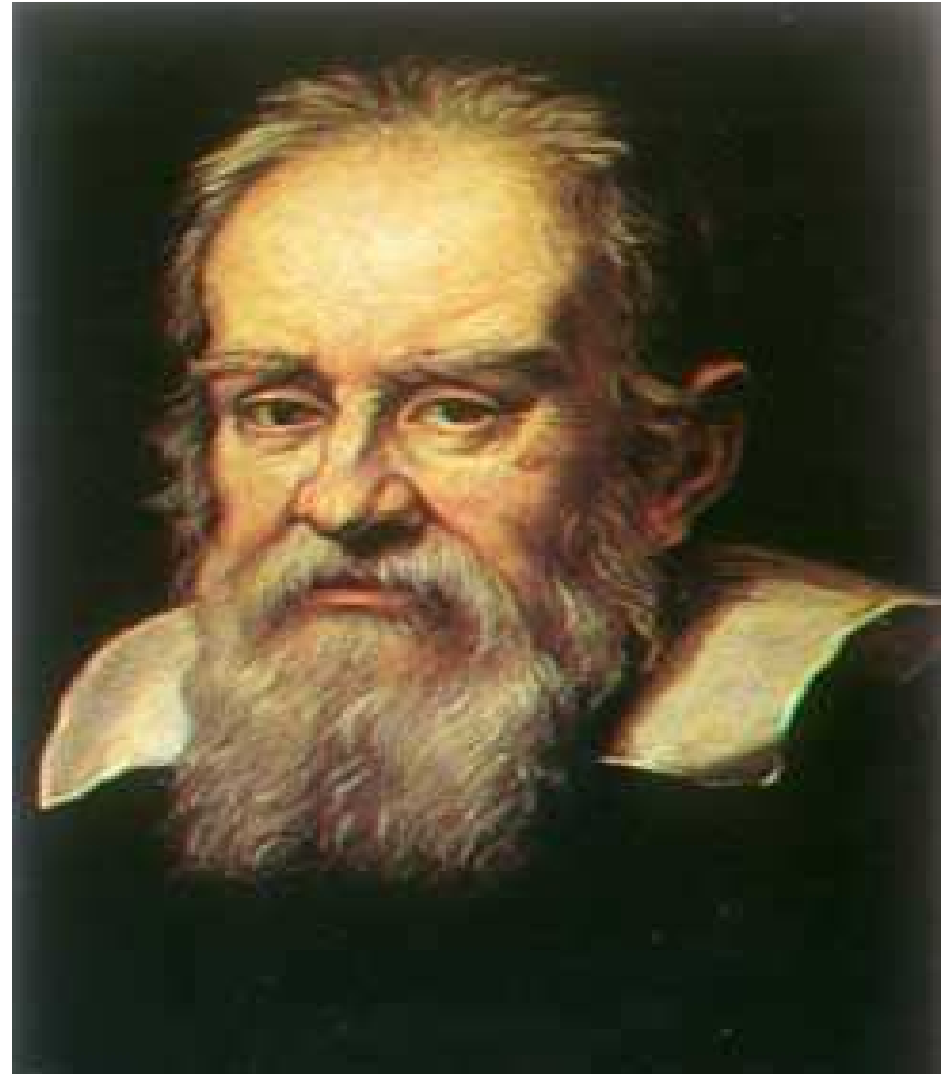
"We should endeavor to establish and extend the power and dominion of the human race itself over the Universe."

Francis Bacon. 1561- 1626



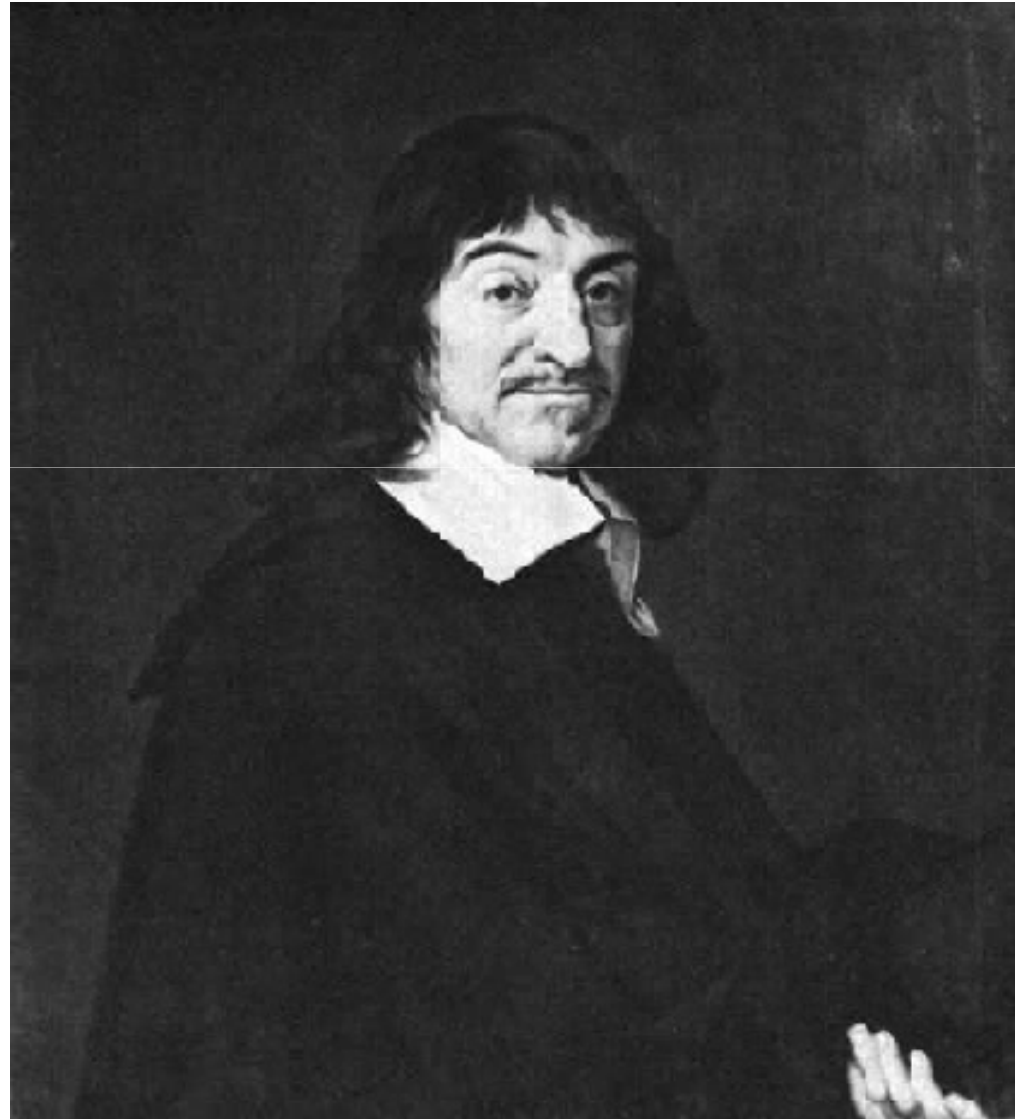
The book of the
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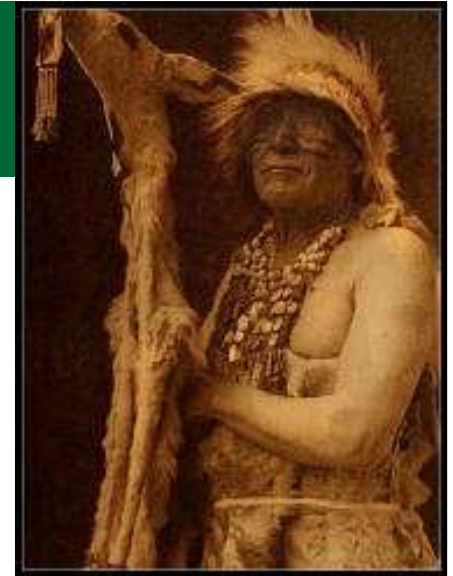
Galileo. 1564 - 1642



"I have described the Earth and the whole visible Universe in the manner of a machine."

Descartes. 1596 -1650



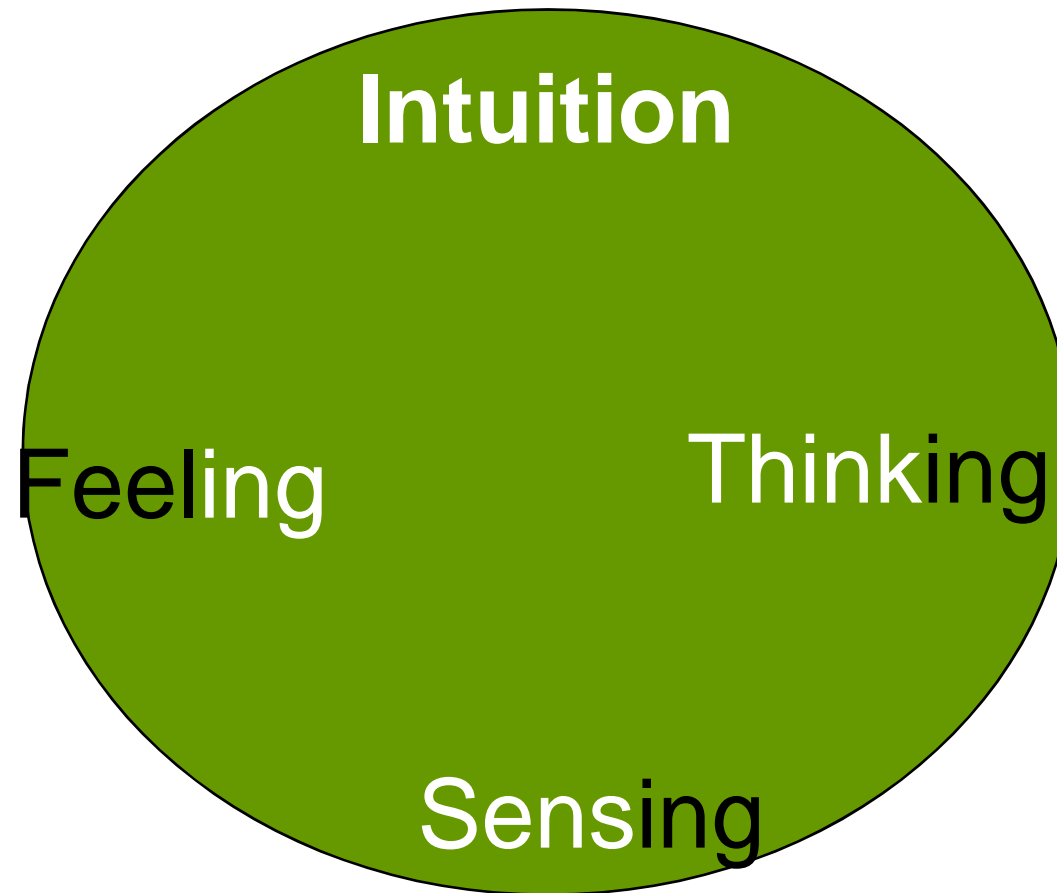



Anima Mundi ?



C.G. Jung

The 'Jungian Mandala'





**How do we value
nature?**

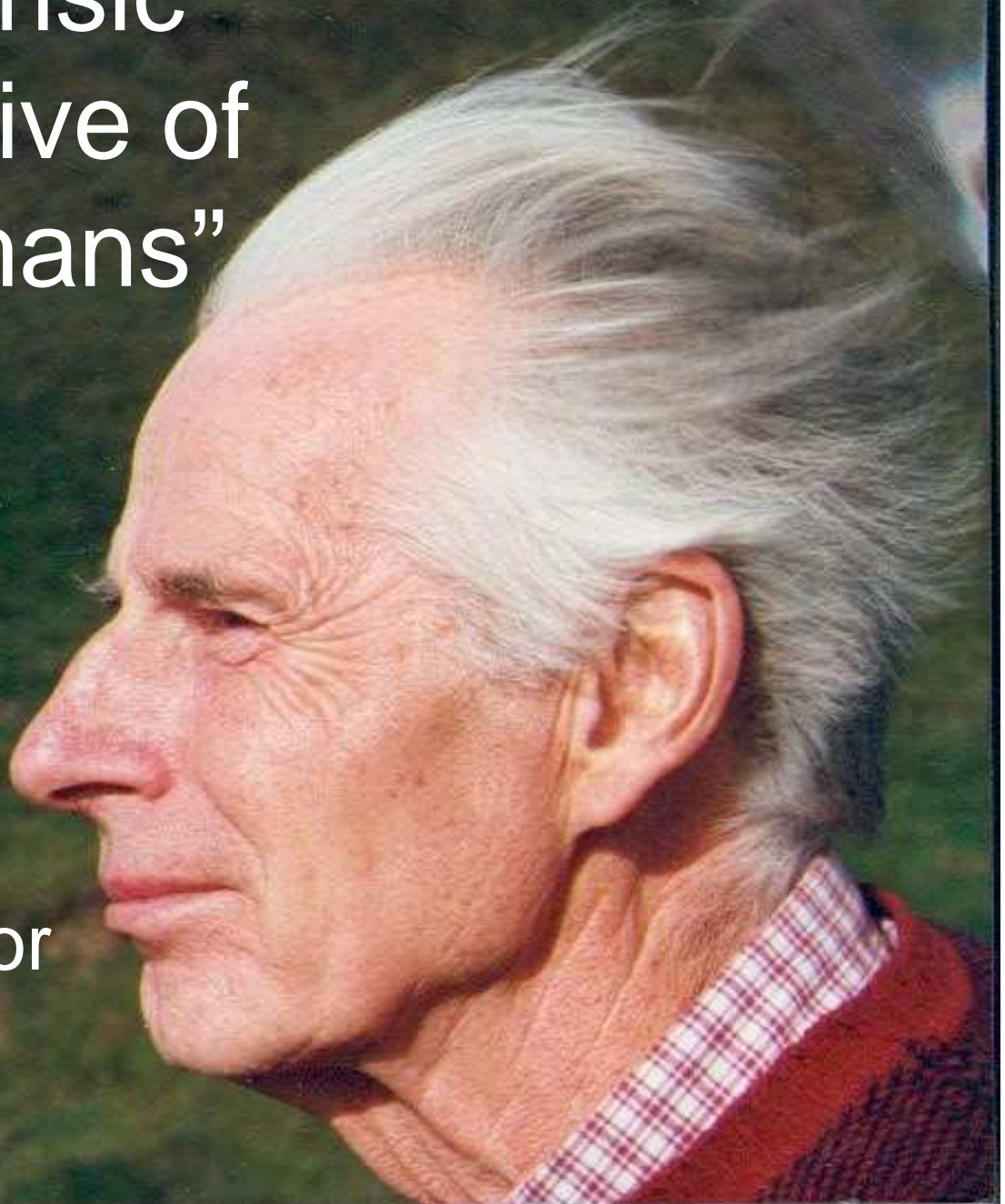
What's it worth?

Global value of annual
'ecosystem services' (\$ trillion)

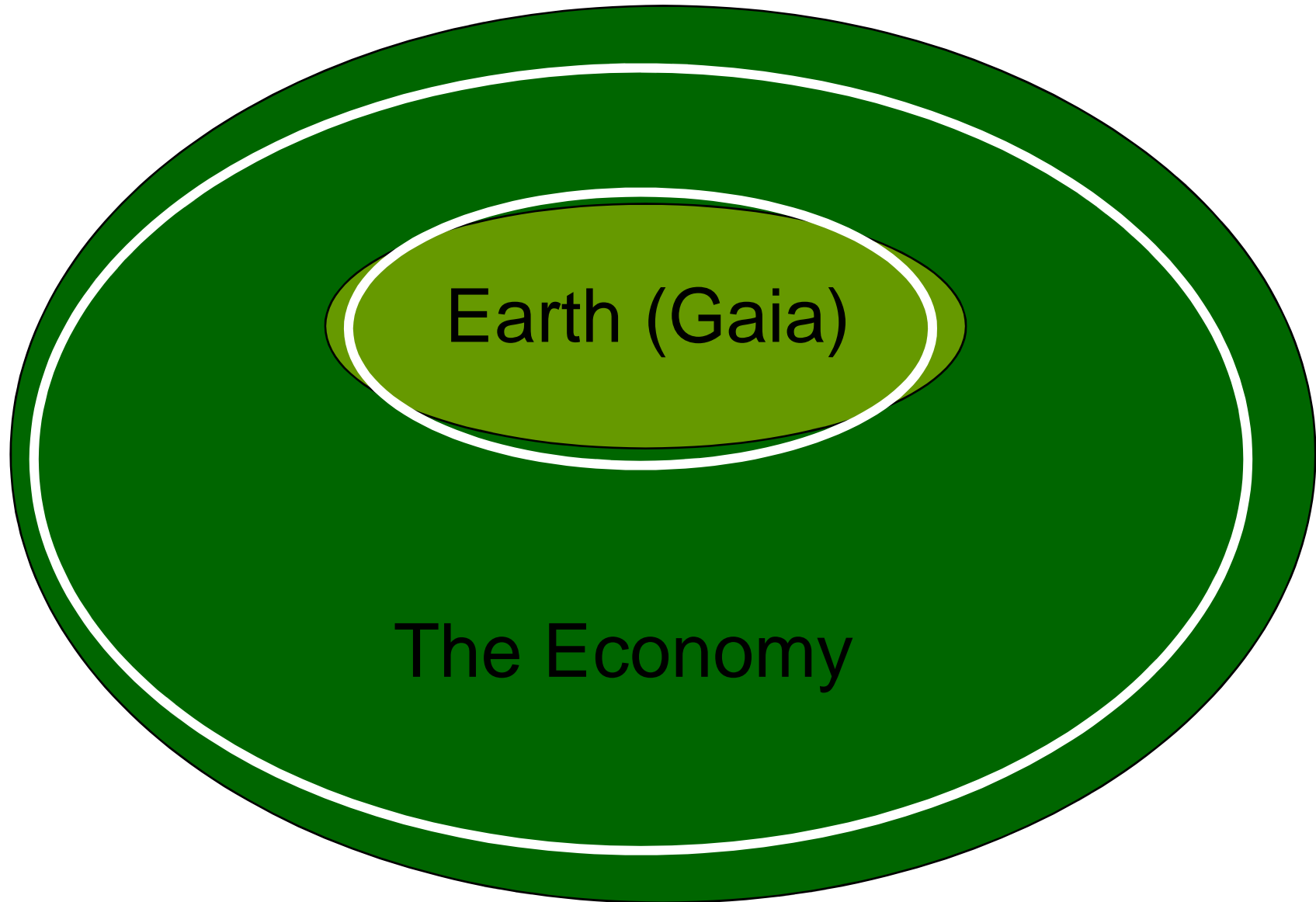
Marine	20.949
Coastal	12.568
Open ocean	8.381
Terrestrial	12.319
Wetlands	4.879
Forest	4.706
Lakes/rivers	1.700
Grasslands	0.906
Crops	0.128
Total	33.258

“All life has intrinsic value, irrespective of its value to humans”

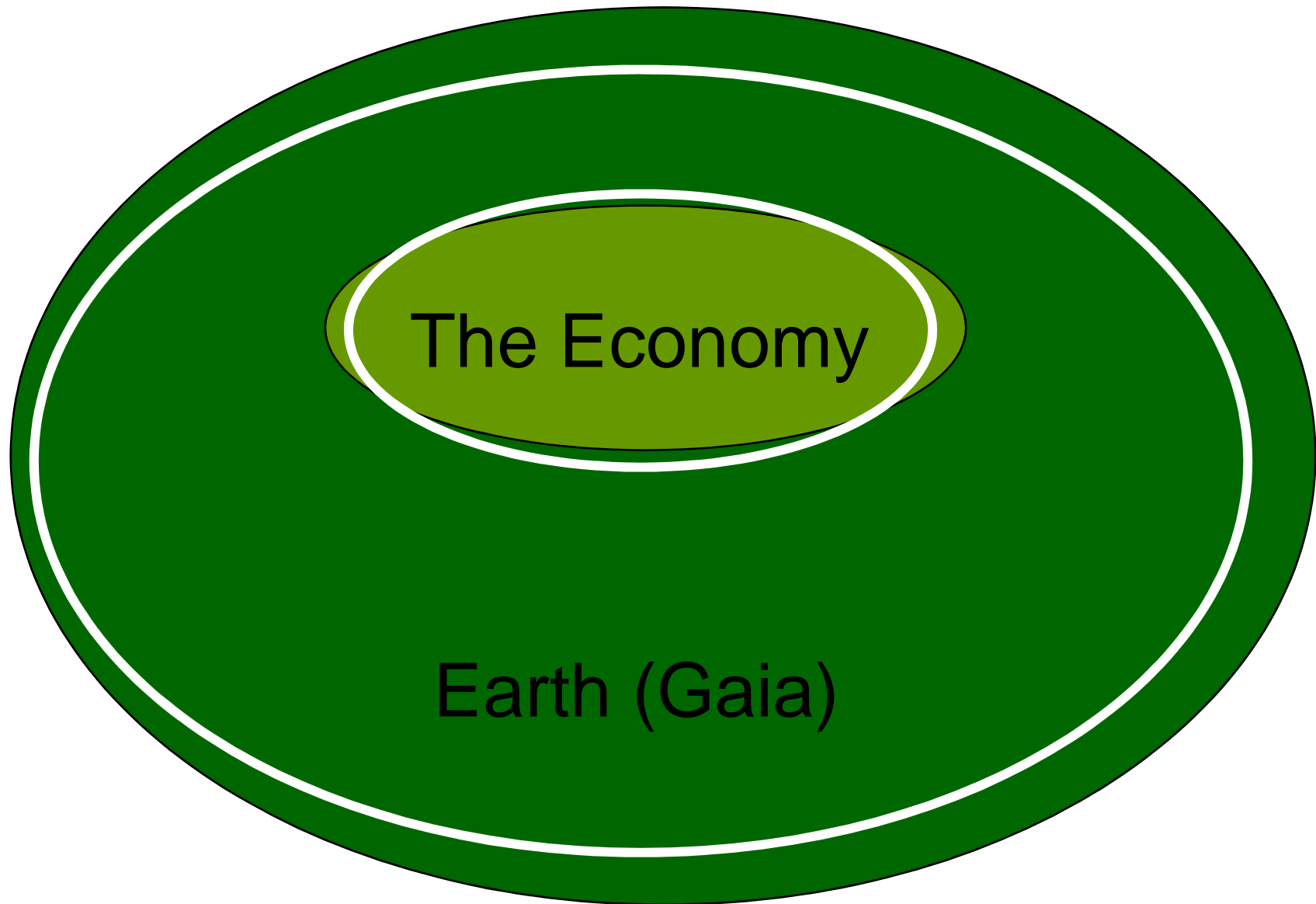
Arne Naess, Professor Emeritus, Oslo University



Suicidal Growth:

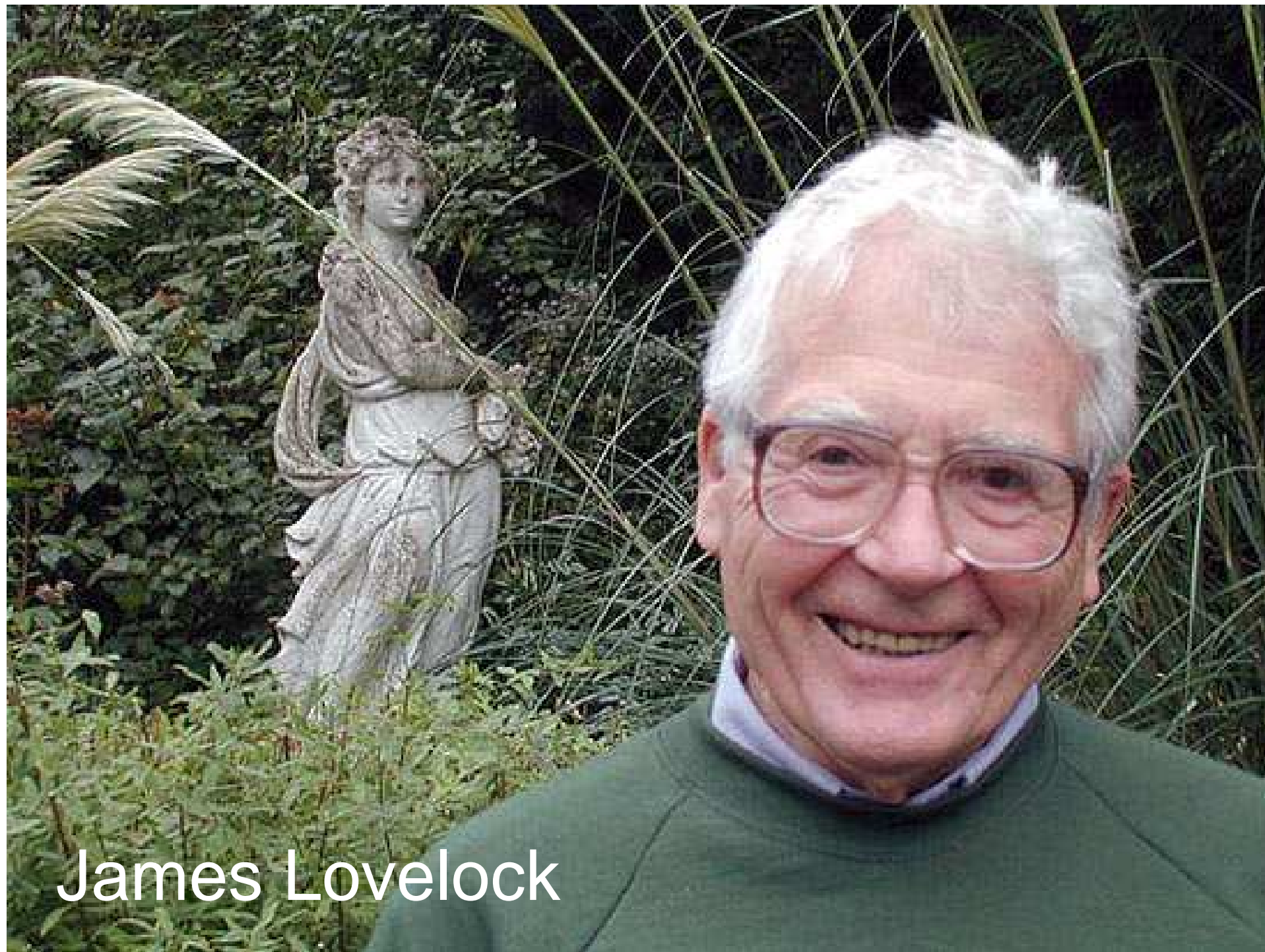


Intelligent Growth:



Steady State Economics:

We must set limits to the flows of all the molecules we extract from nature.



James Lovelock



The state of the Earth



Antropocene ?



Let's make a **Deep time walk..**

History of the Earth begins around

4.54 billion (4.54×10^9) years ago

-- -- -- follow enclosed instructions