

The Ecological Footprint

A tool for tough decisions

Mathis Wackernagel, Ph.D.

Business and Biodiversity – April 3, 2008



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Advancing the Science of Sustainability

Context for the 21st century

*humanity's
metabolism*

<

*Earth's
capacity*



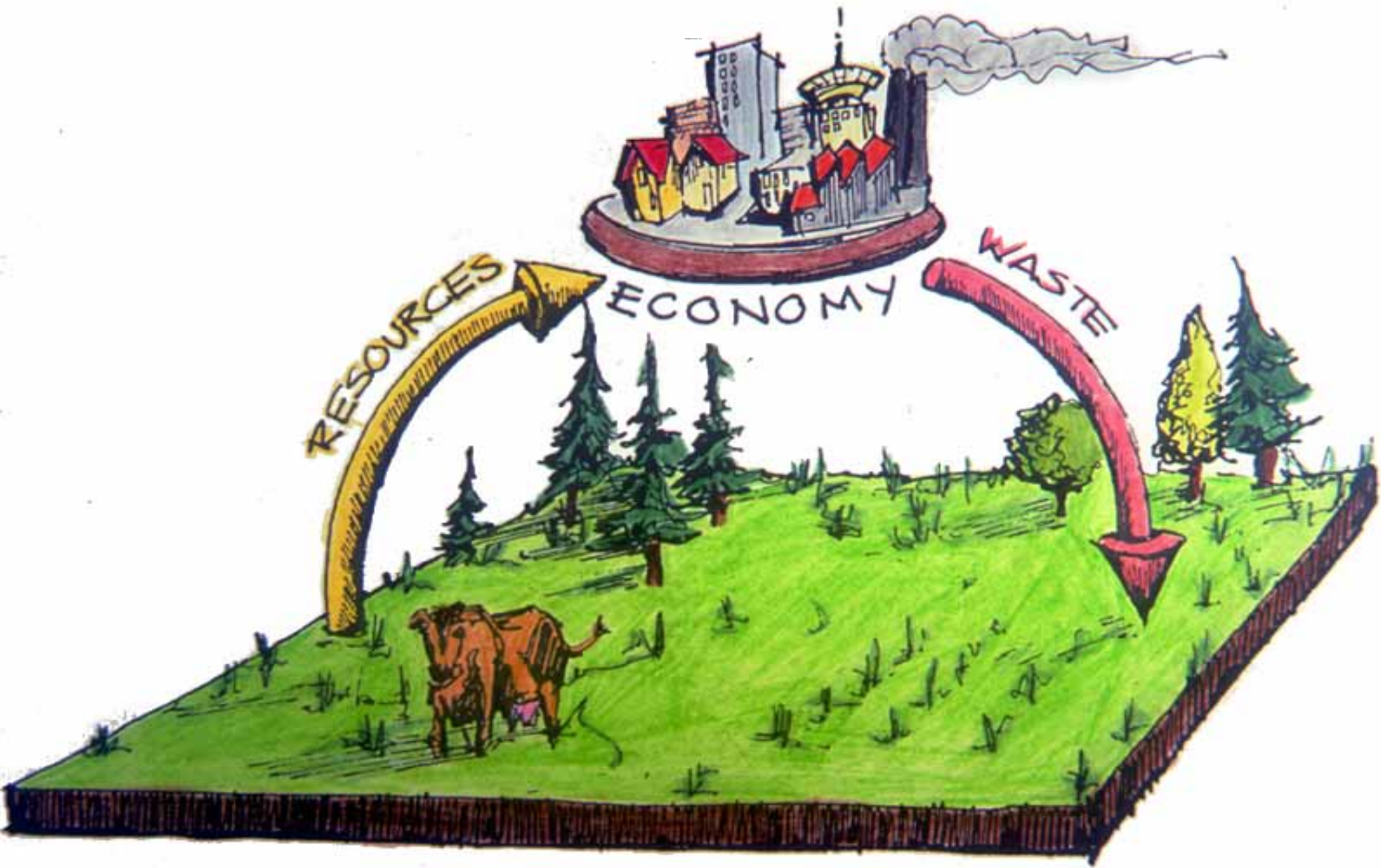
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The
Economist



Yes, Footprint is a popular metaphor...

...and measurement tool to compare **human demand** against **biosphere's regenerative capacity**



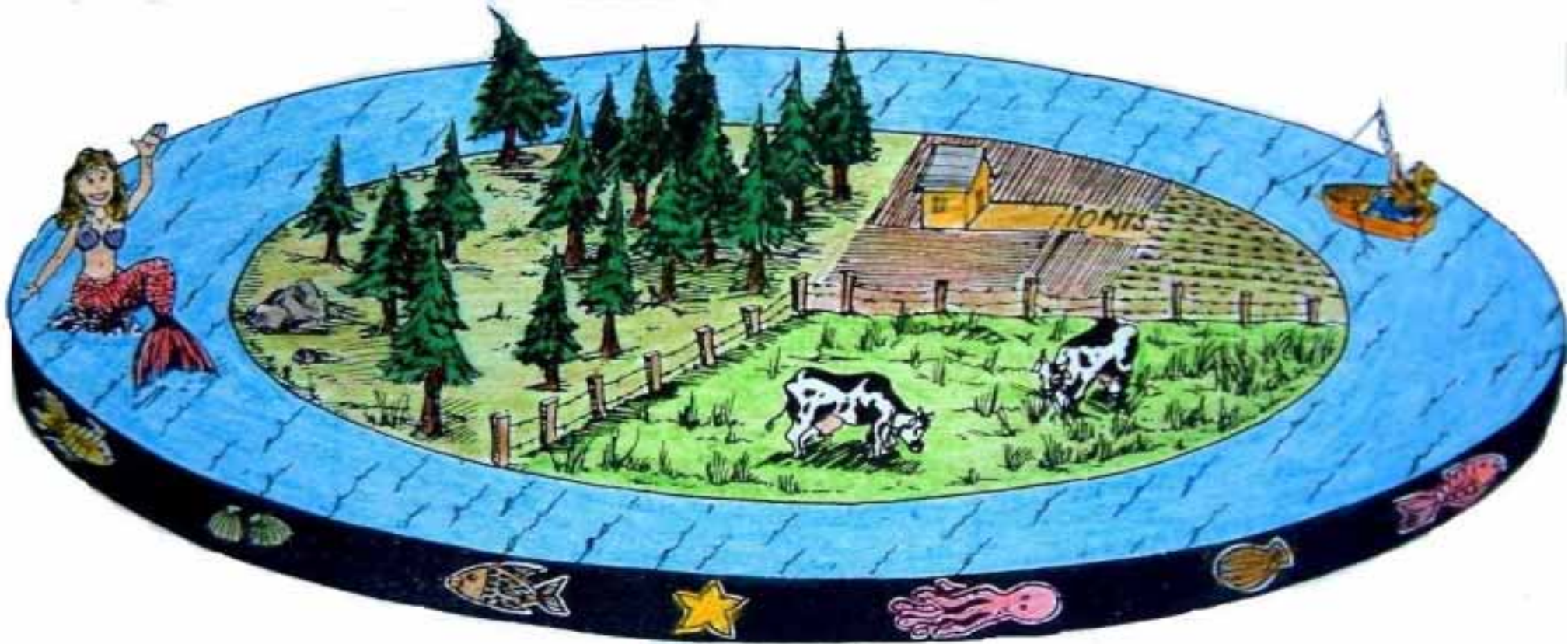
On the one hand:

Biocapacity

(ecological supply)



How much “nature” is available?



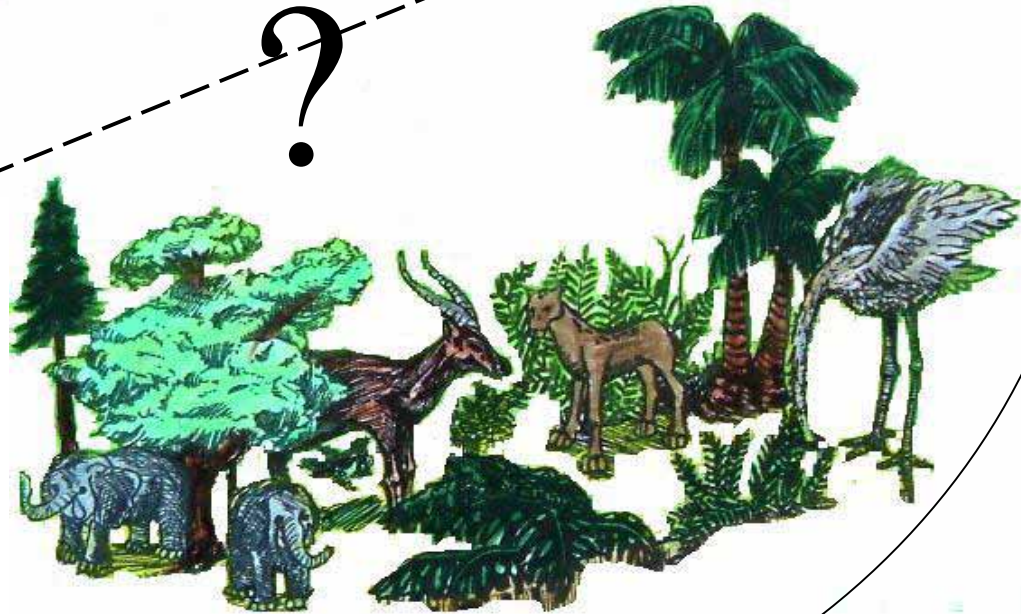
With 6.3 billion people (2003)

Global average availability of bioproductive land + sea area

= 1.8 global hectares per person



?



On the other hand:

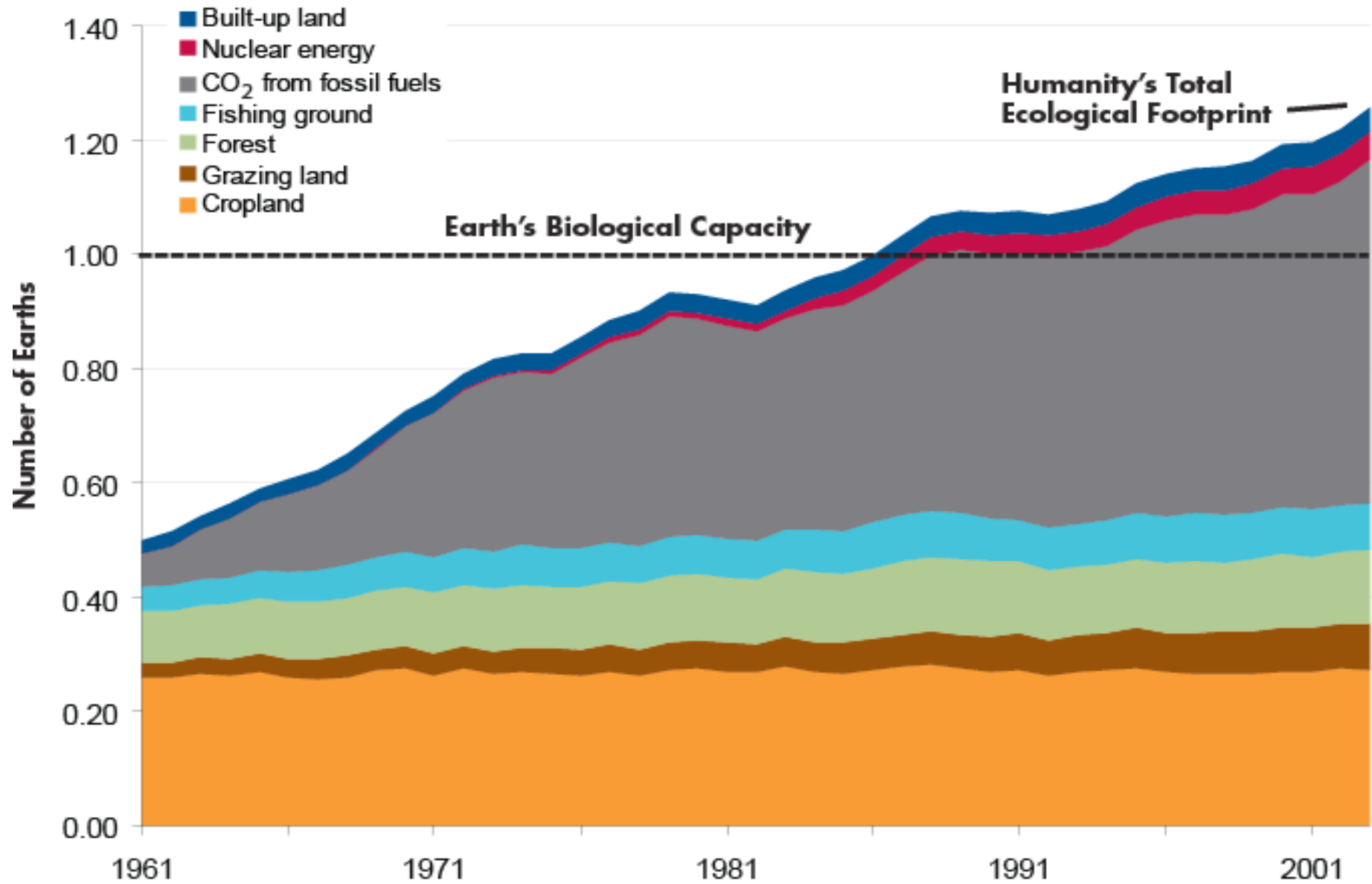
**Ecological Footprint
(human demand)**

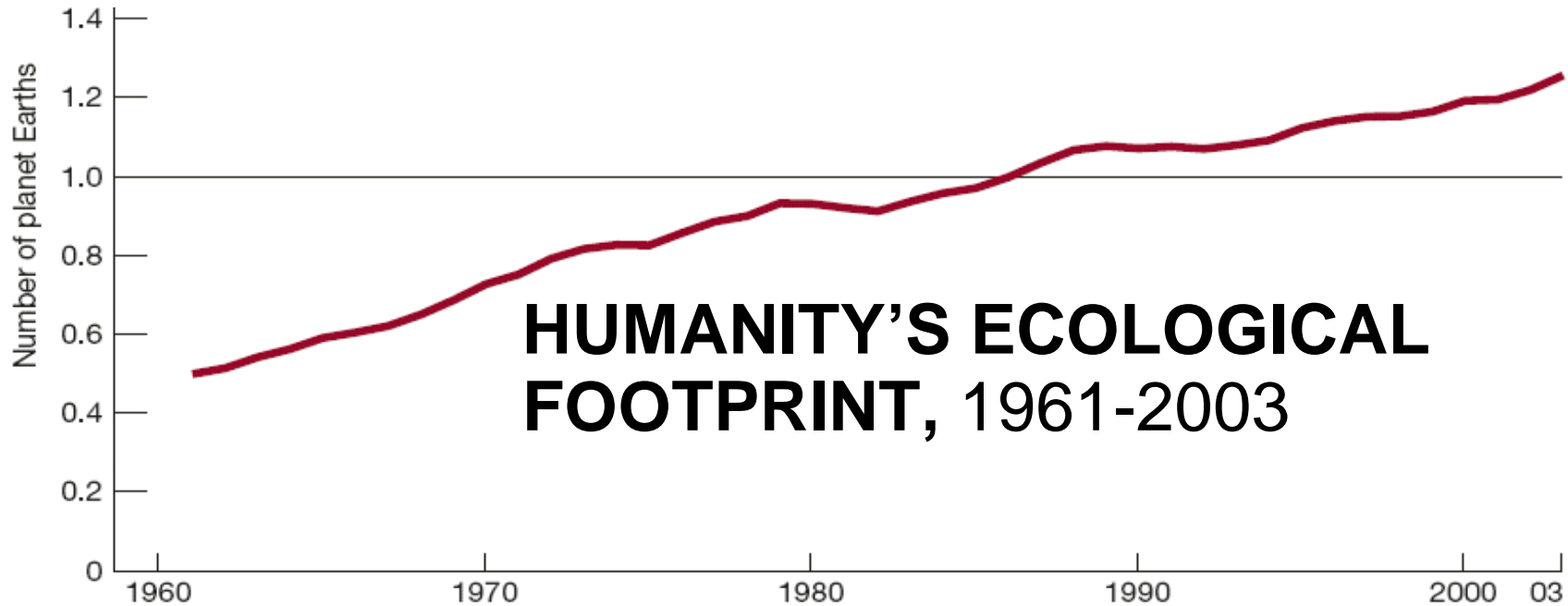
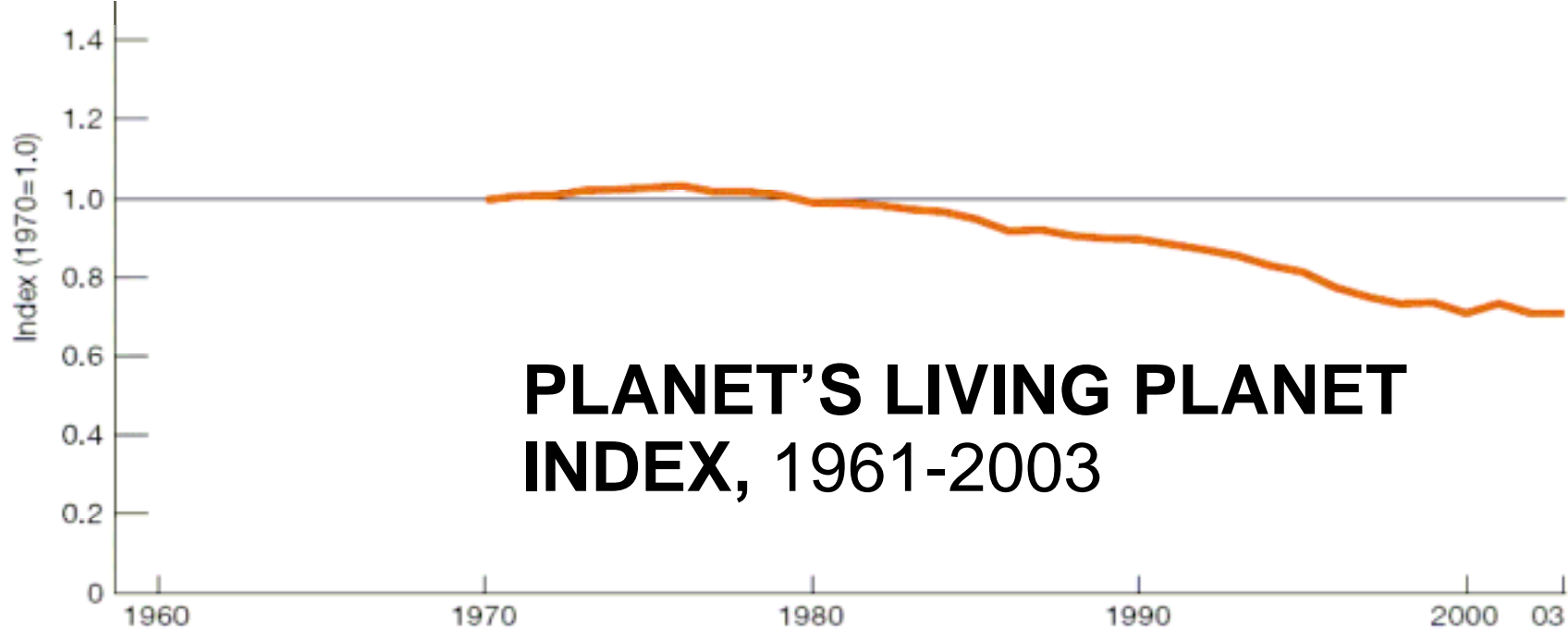


The Ecological Footprint

<i>Data for 2003</i>	<i>Eco-Footprint</i> [global ha/cap]	<i>Biocapacity</i> [global ha/cap]
Canada	7.6	14.5
China	1.6	0.8
Germany	4.5	1.7
Italy	4.2	1.0
Japan	4.4	0.7
Russia	4.4	6.9
United Kingdom	5.6	1.6
US	9.6	4.7
WORLD	2.2	1.8

Humanity's Ecological Footprint





Business and Biodiversity Benefits of “Ecological Footprint **thinking**”:

- You can **explain decision-makers the challenge**: a complex, ecologically constrained world
- You can more easily **communicate benefits** of aggressive sustainability policies and features
- You can **identify risks & opportunities**

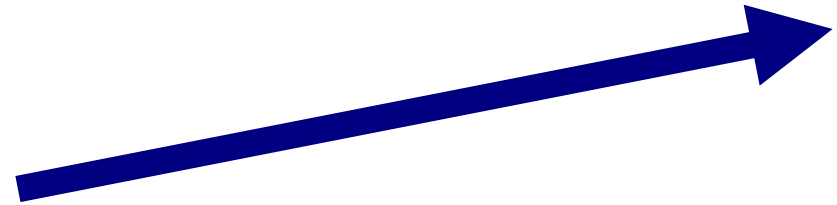


Looking into the Future

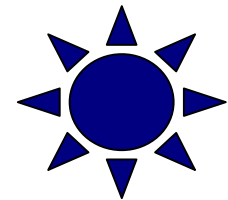


Focus on

trends

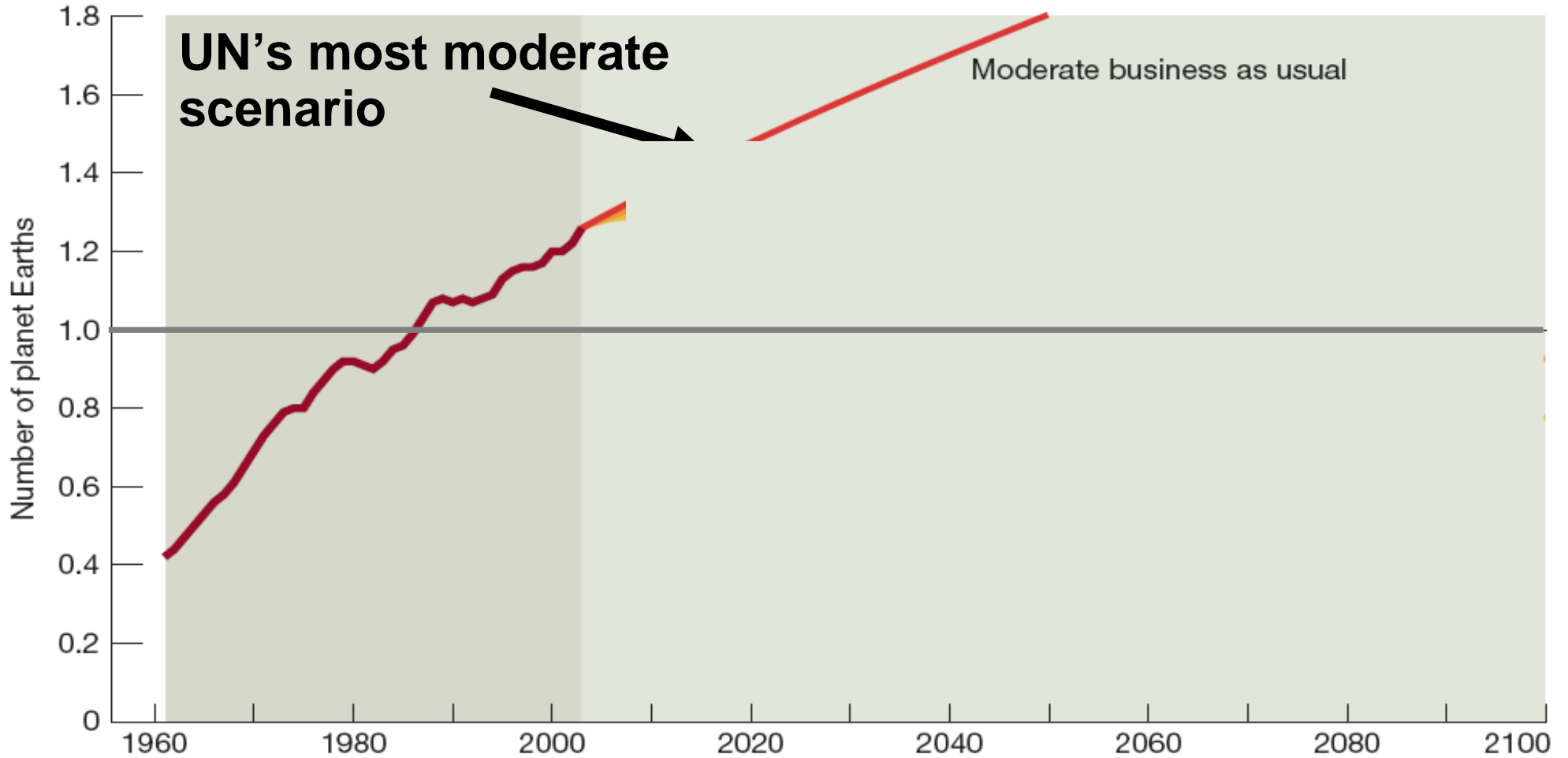


not events

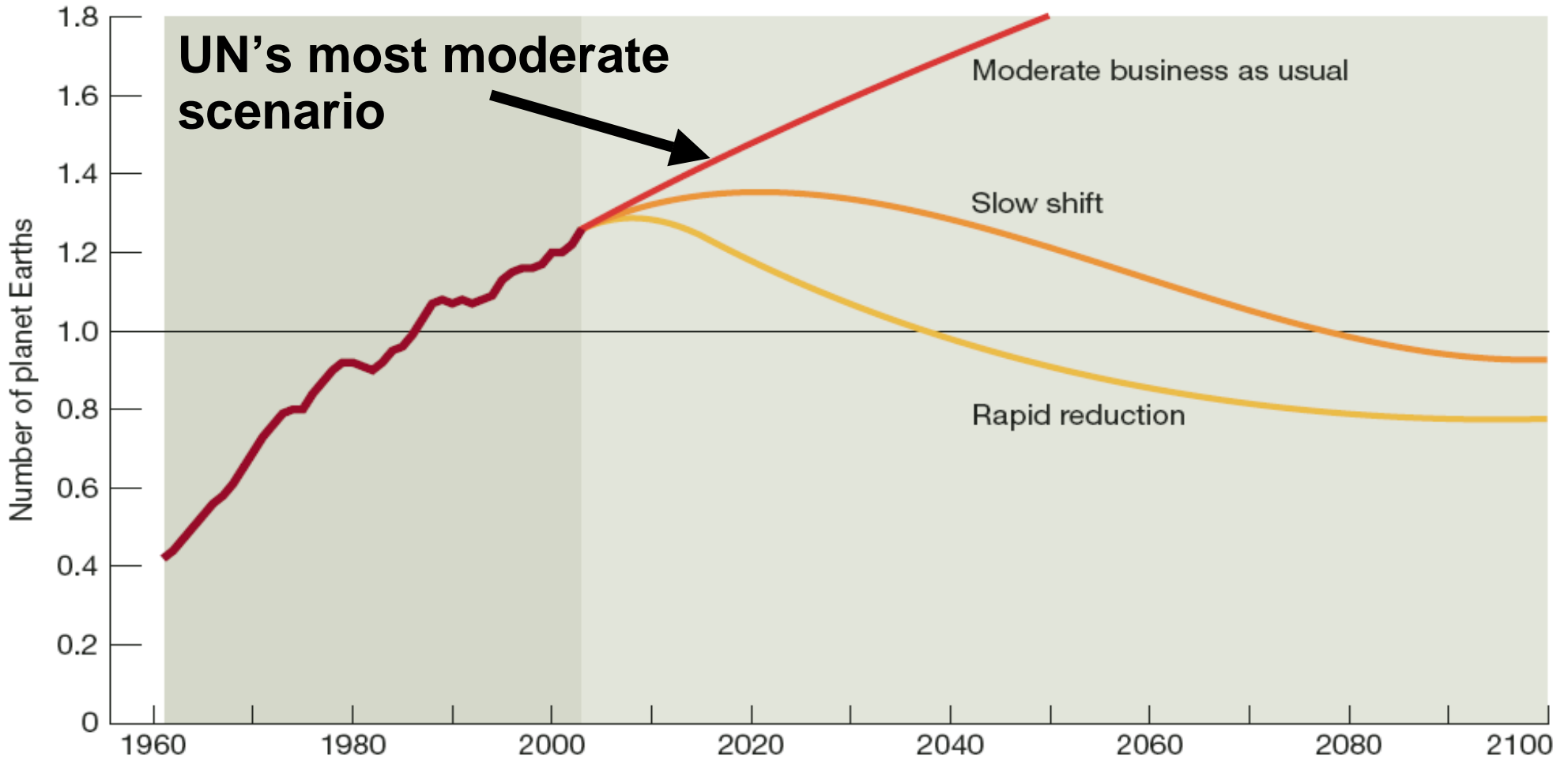


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Global Context for the Coming Decades

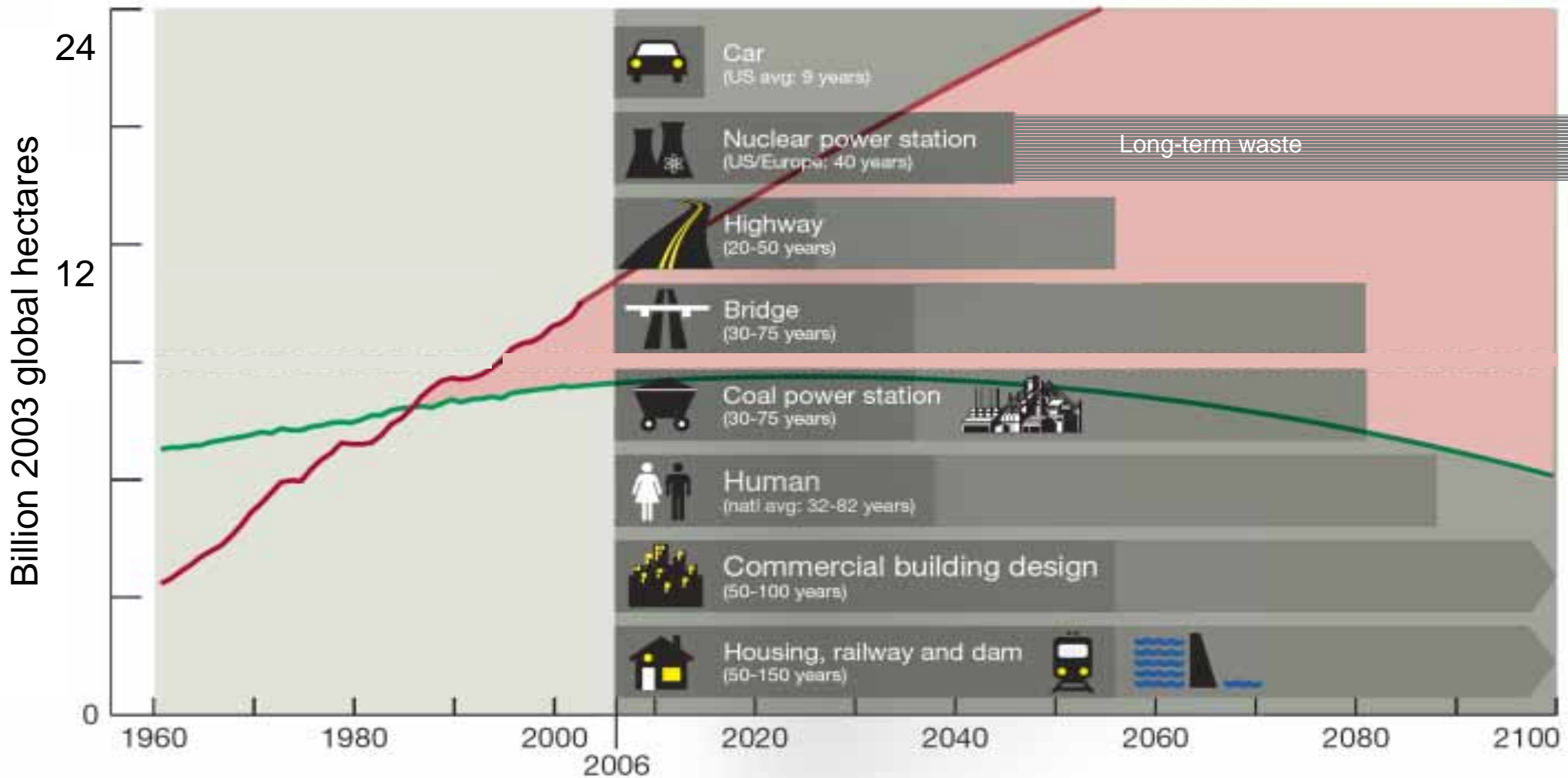


How many % of World GDP need to be invested to turn the curve?



Slow Things First

Map Lifespan of People, Assets and Infrastructure against Time Spans of Biosphere



Austria – World Champion

2,000 zero - energy houses

3,000,000 houses in Austria

***0.0007 (or 0.07 %) of
Austrian
housing stock***

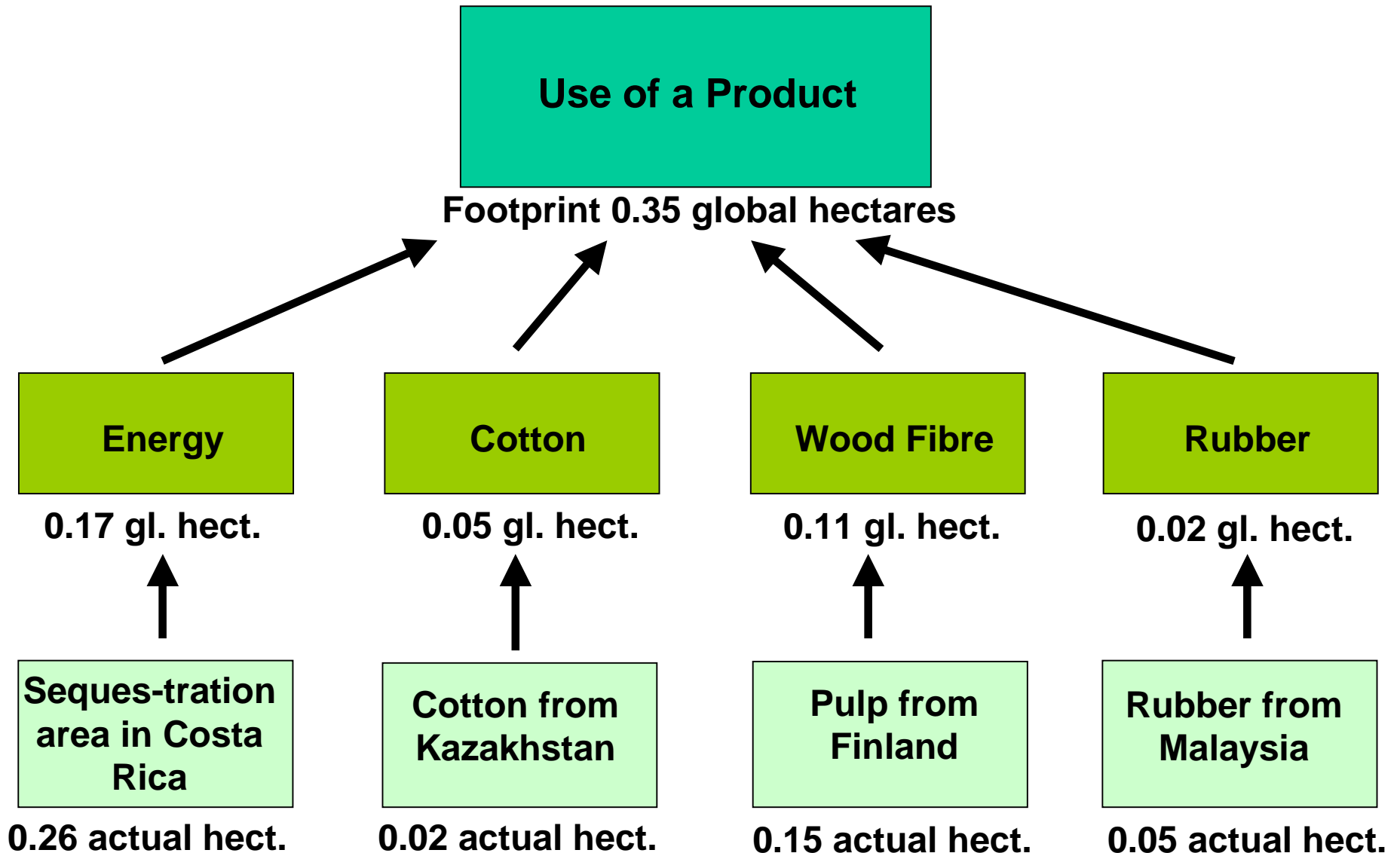


THE HOT TOPIC

WILL HEATHROW TERMINAL 5 LIVE UP TO THE HYPE?

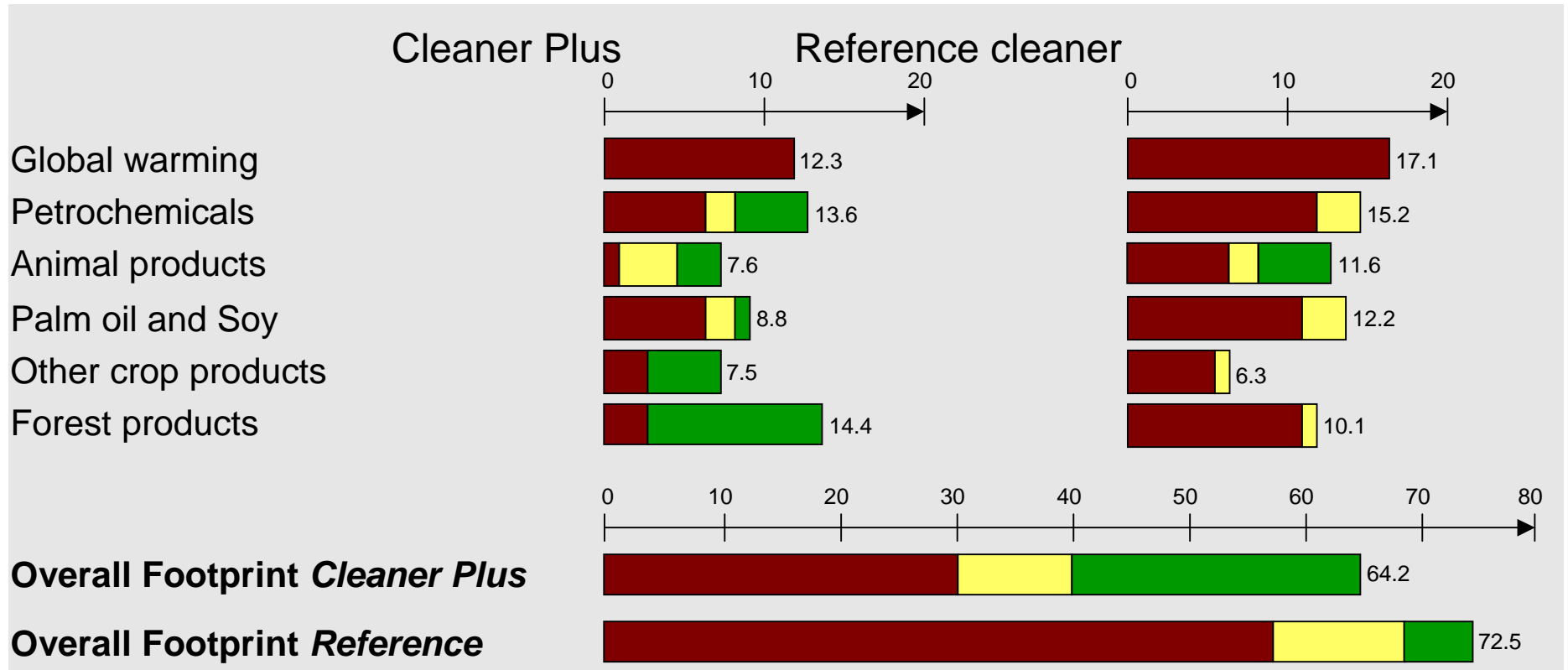
At 4.50am on Thursday, flight BA026 than 380 arrivals and departures, could onto a bus. No fewer than 20 of the ter-

Linking Products to Biodiversity Pressure



Ecological Footprint of Cleaner Plus

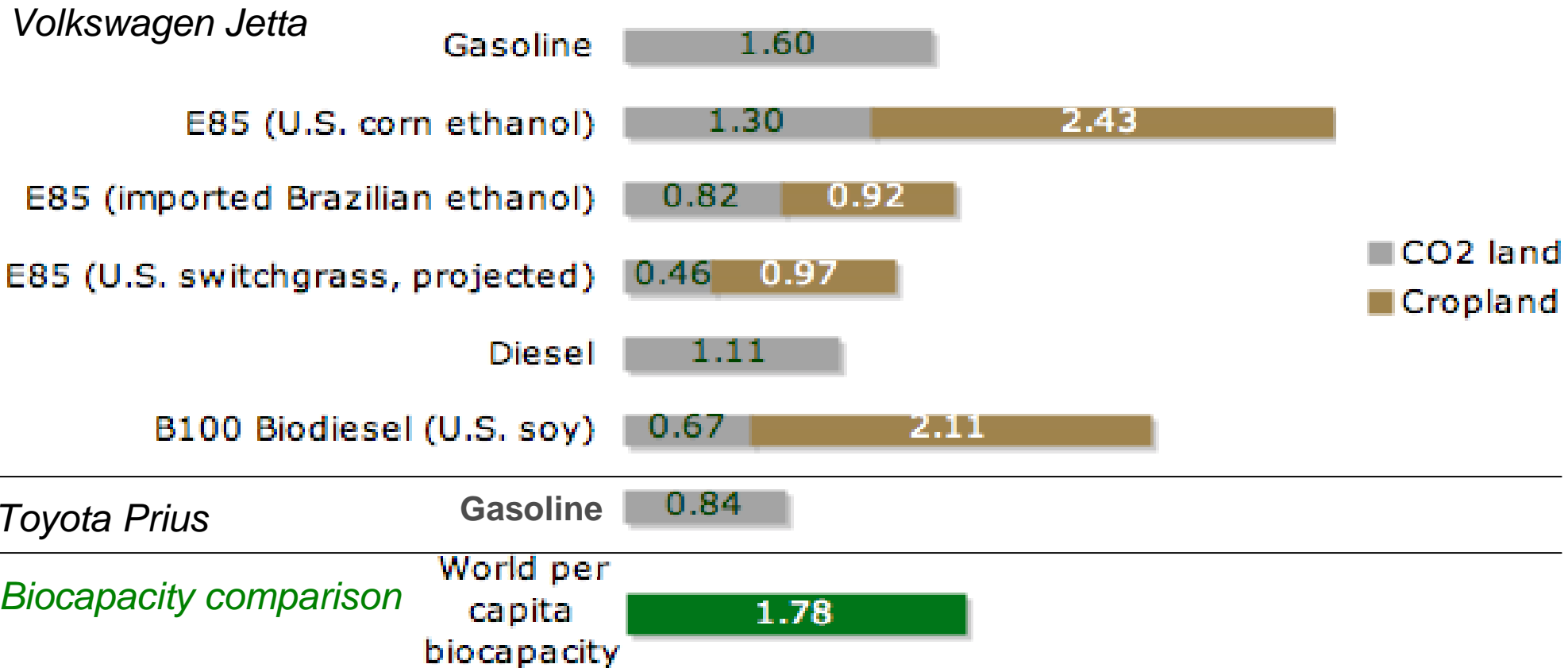
Global hectares per tonne of cleaning agent (or Euro? m² cleaned?)*



* Not based on actual numbers

- = Footprint area with ecological deterioration
- = Footprint area with little ecological deterioration
- = Footprint area providing ecosystem restoration


Global Hectares



Estimated Footprint of Volkswagen Jetta and Toyota Prius based on average US car use of 20,000 km / yr (based on EPA 2006 fuel mileage rating system)

(source Jorgen Vos)

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**1) Accurate
accounts of
ecological
performance**



Accounting is good for us



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Solutions

**Are they adding
up?**

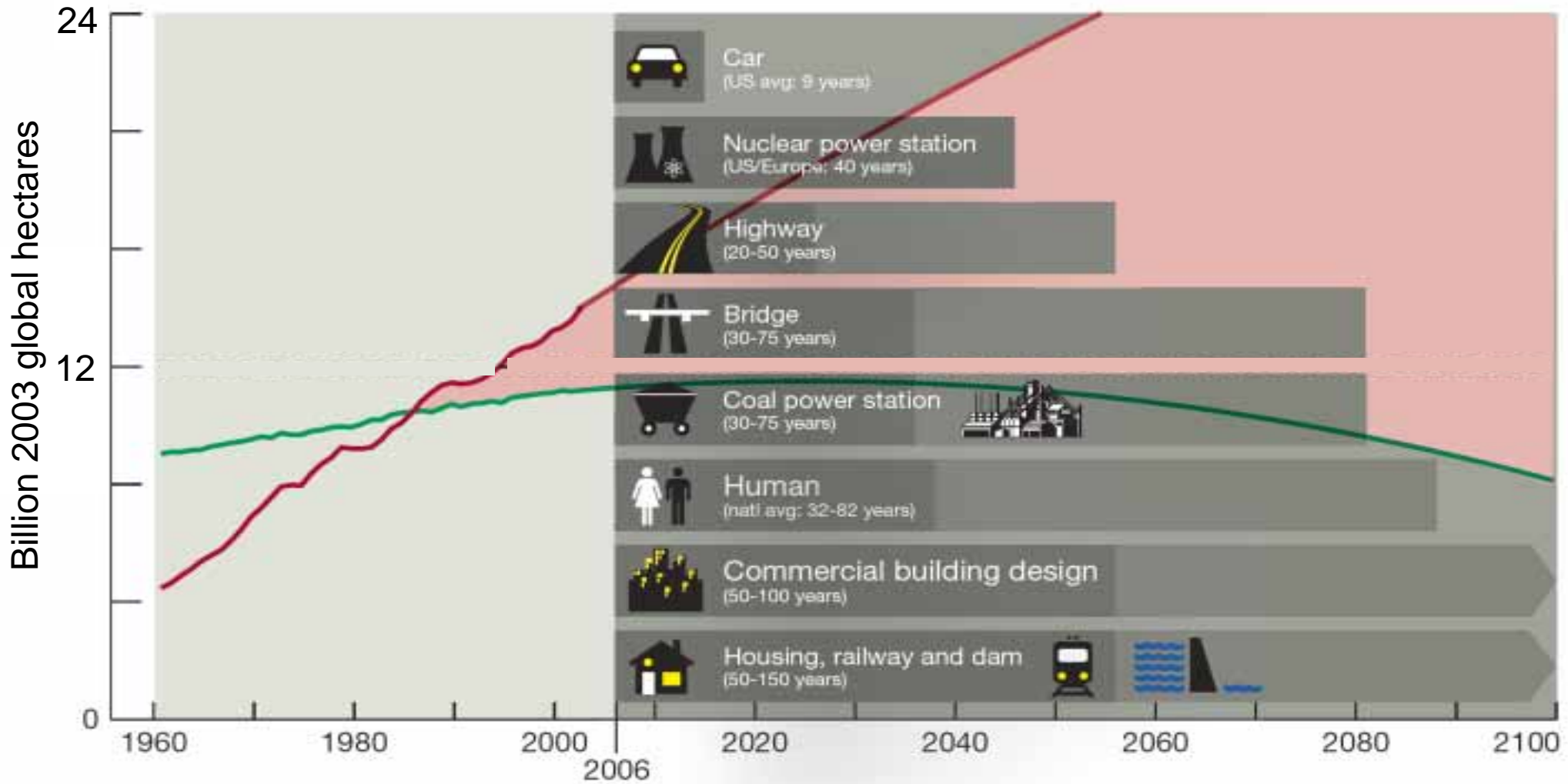


2) Slow things...



...first!

LIFESPANS OF PEOPLE, ASSETS, AND INFRASTRUCTURE



Channeling **Innovation**

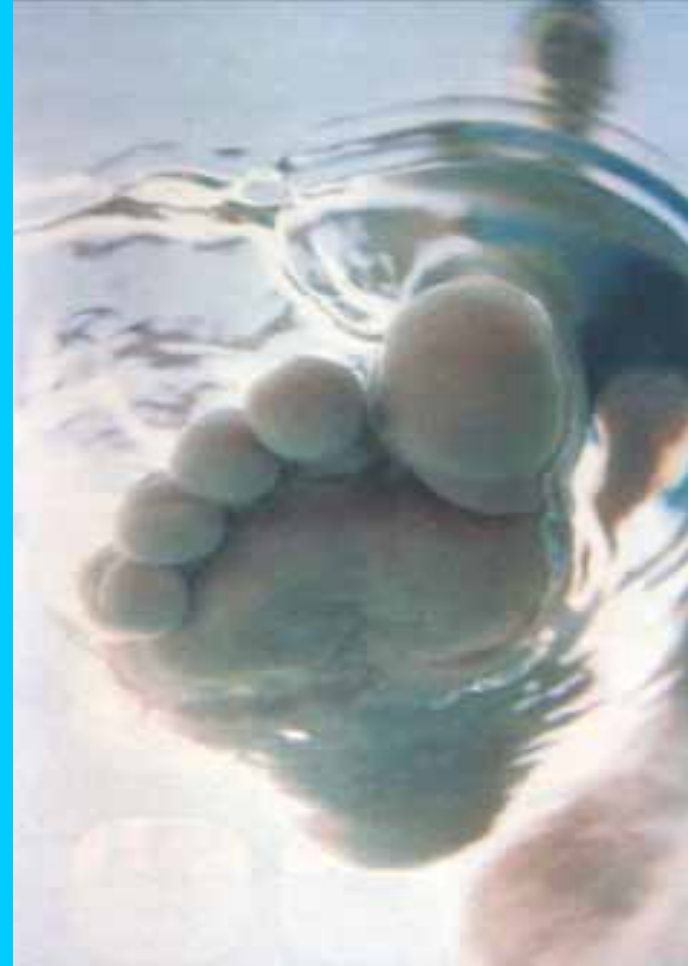


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Winning together!

www.footprintnetwork.org

mathis@footprintnetwork.org



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