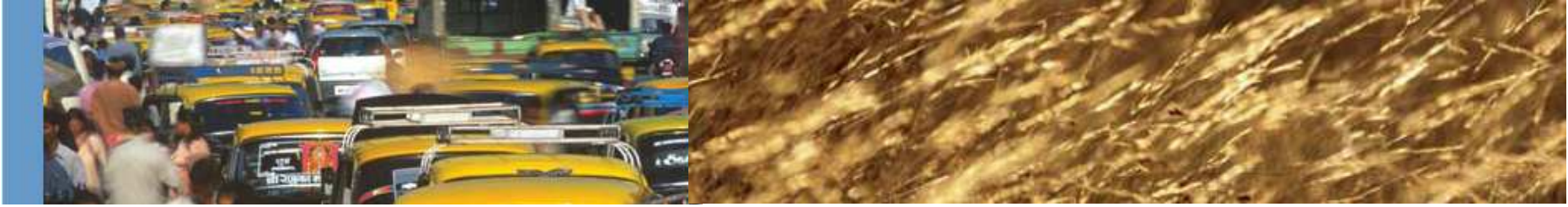




# Securing Human Well-being in a Resource Constrained World

Dr. Mathis Wackernagel  
Global Footprint Network  
“Beyond GDP” – November 6, 2009

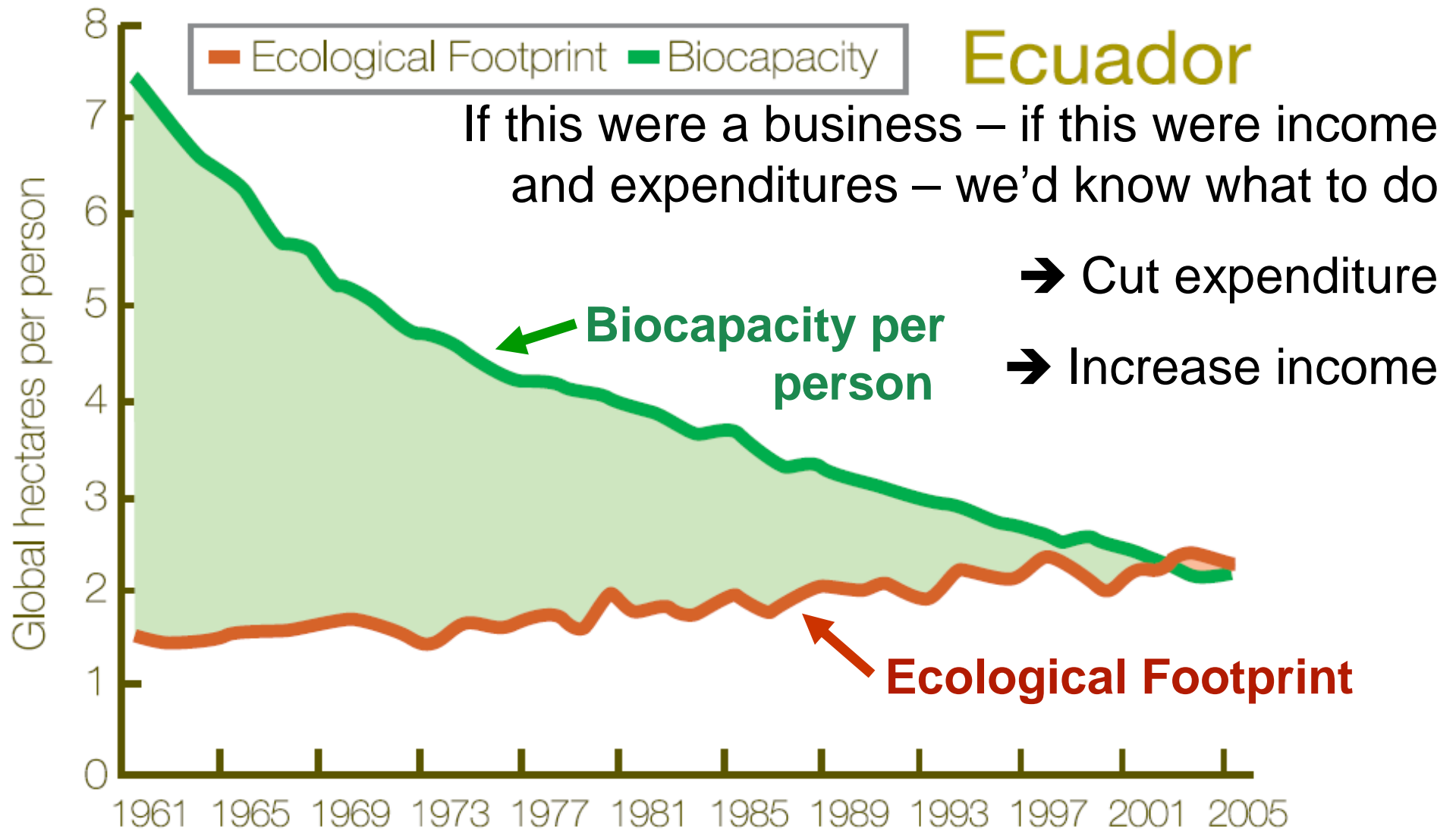


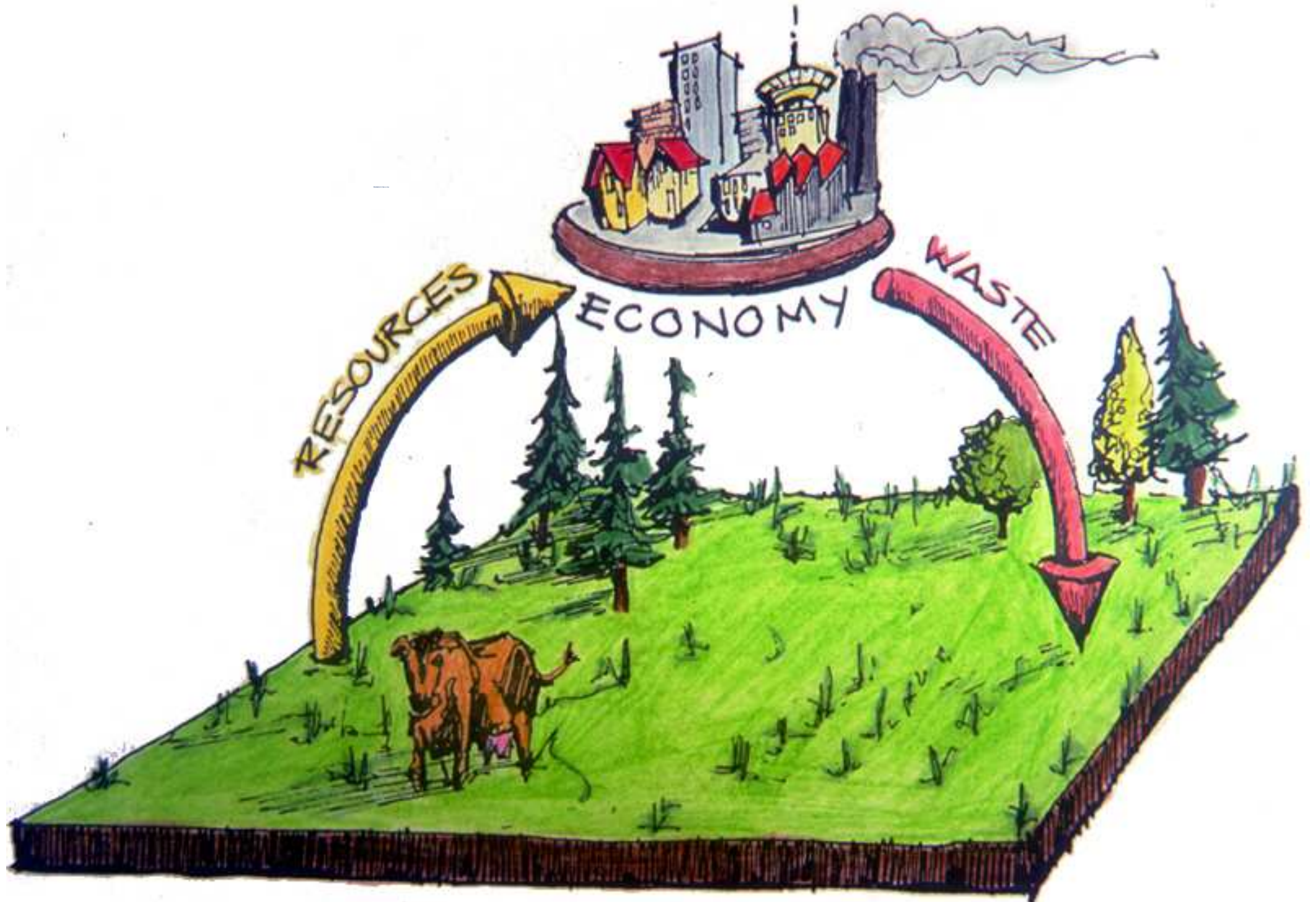
## Summary

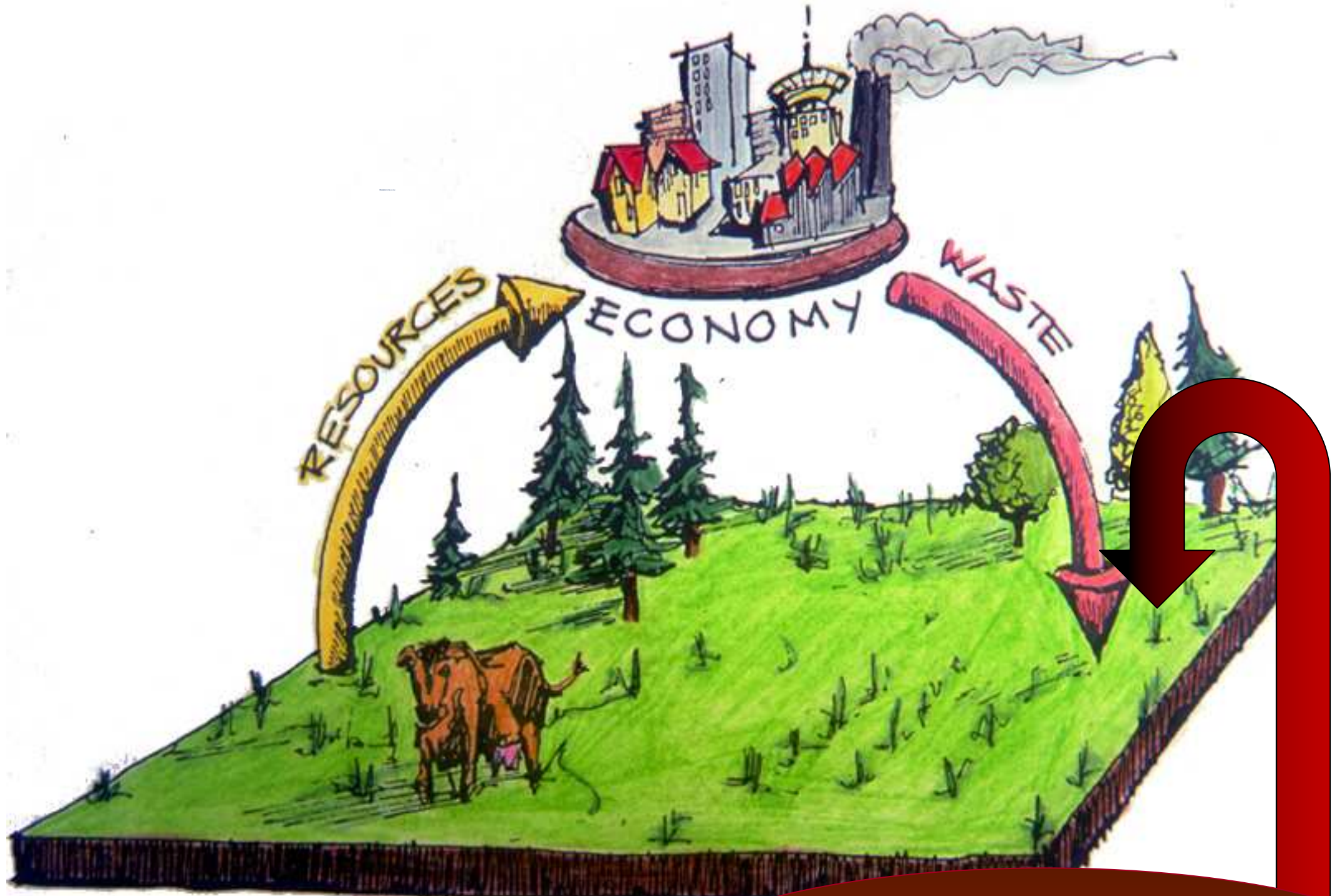
With upcoming resource constraints, a country that does not know **how much biocapacity it has**, and **how much it uses** will not be able to operate effectively

If you don't have this capacity, you need a tool like the Footprint

We seek collaborations with Hungary and its agencies to establish Footprint side-by-side with GDP



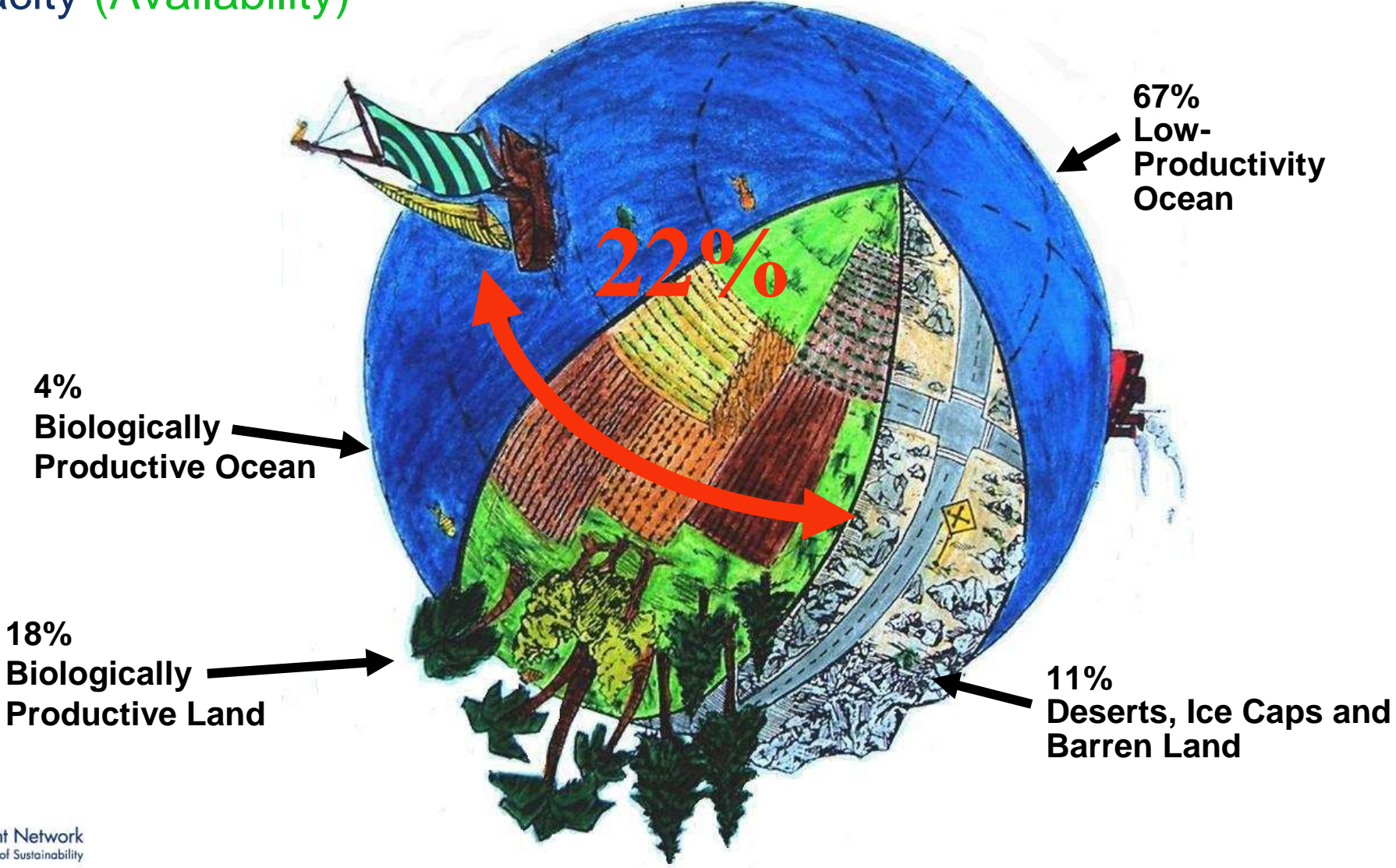




Fossil Fuels

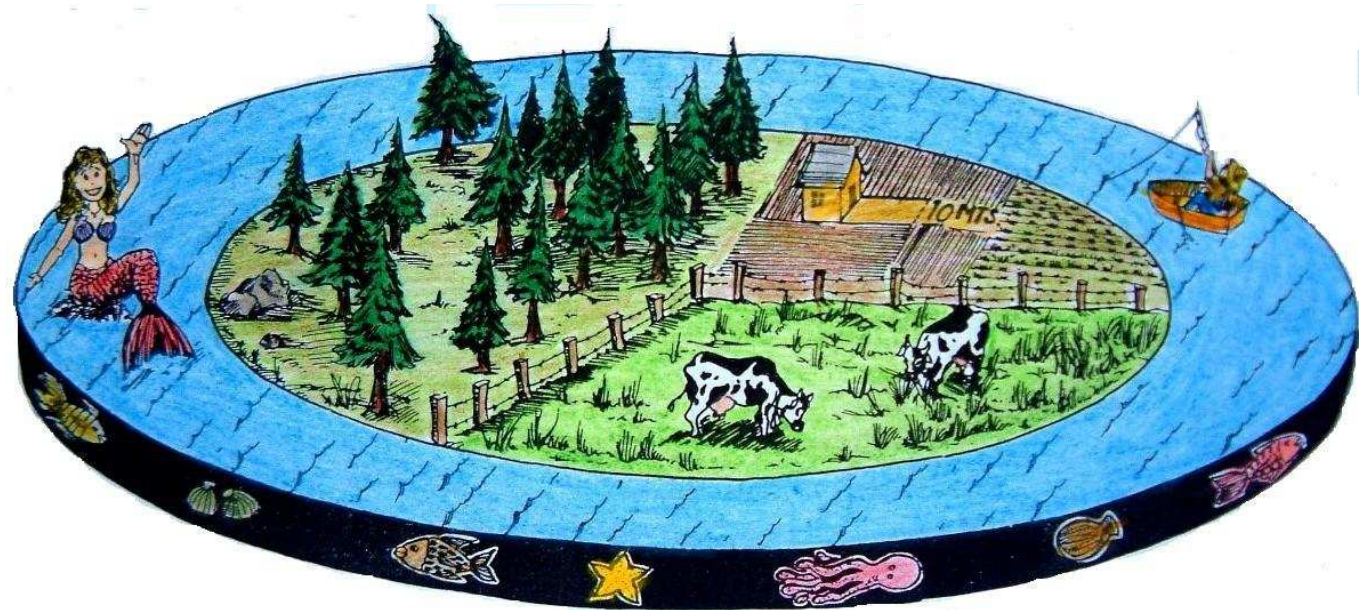


# Biocapacity (Availability)



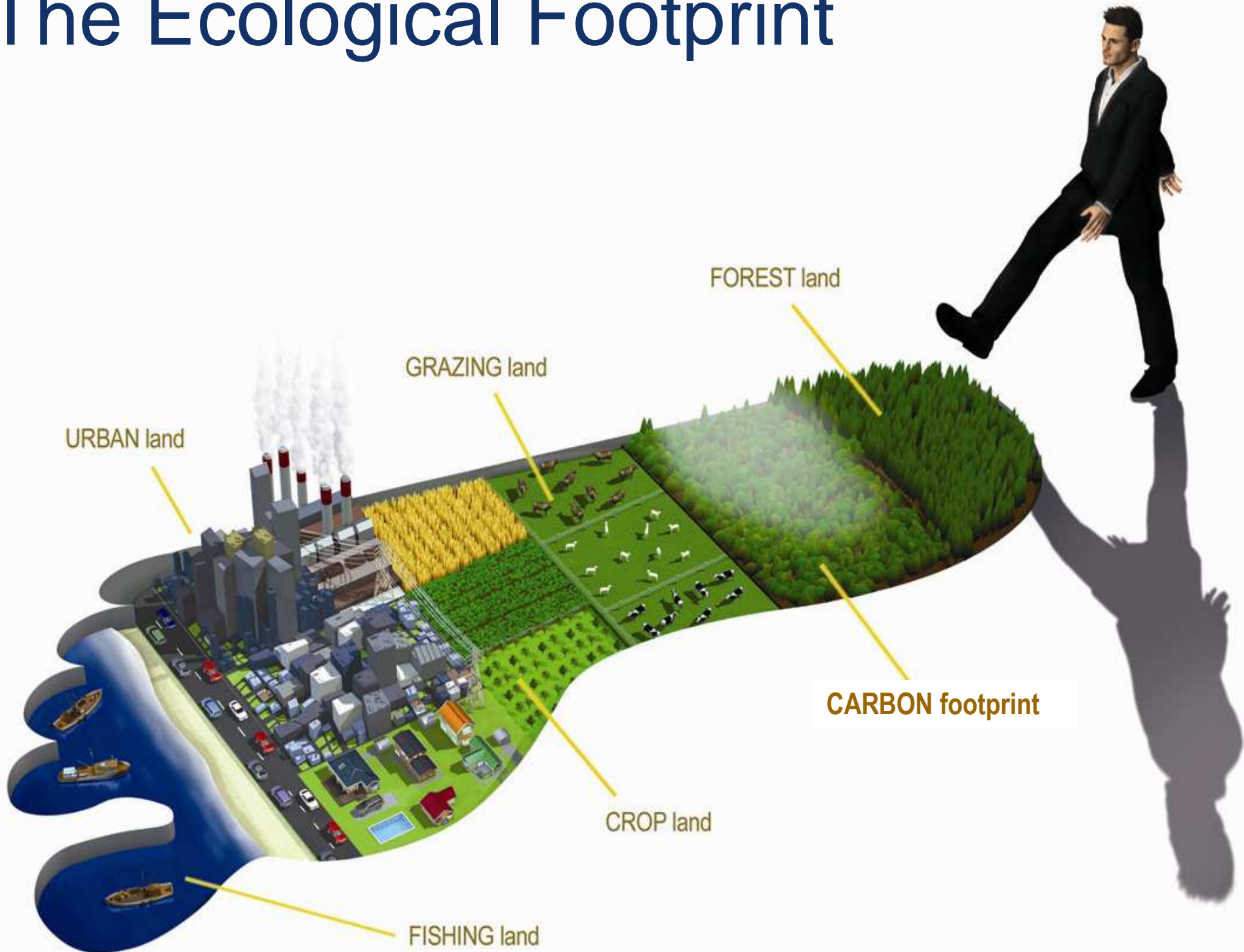


## Biocapacity available per person (**Availability**)



Global average availability of bioproductive  
Land + Sea = **2.1 global hectares/person**  
(*in 2005*)

# The Ecological Footprint

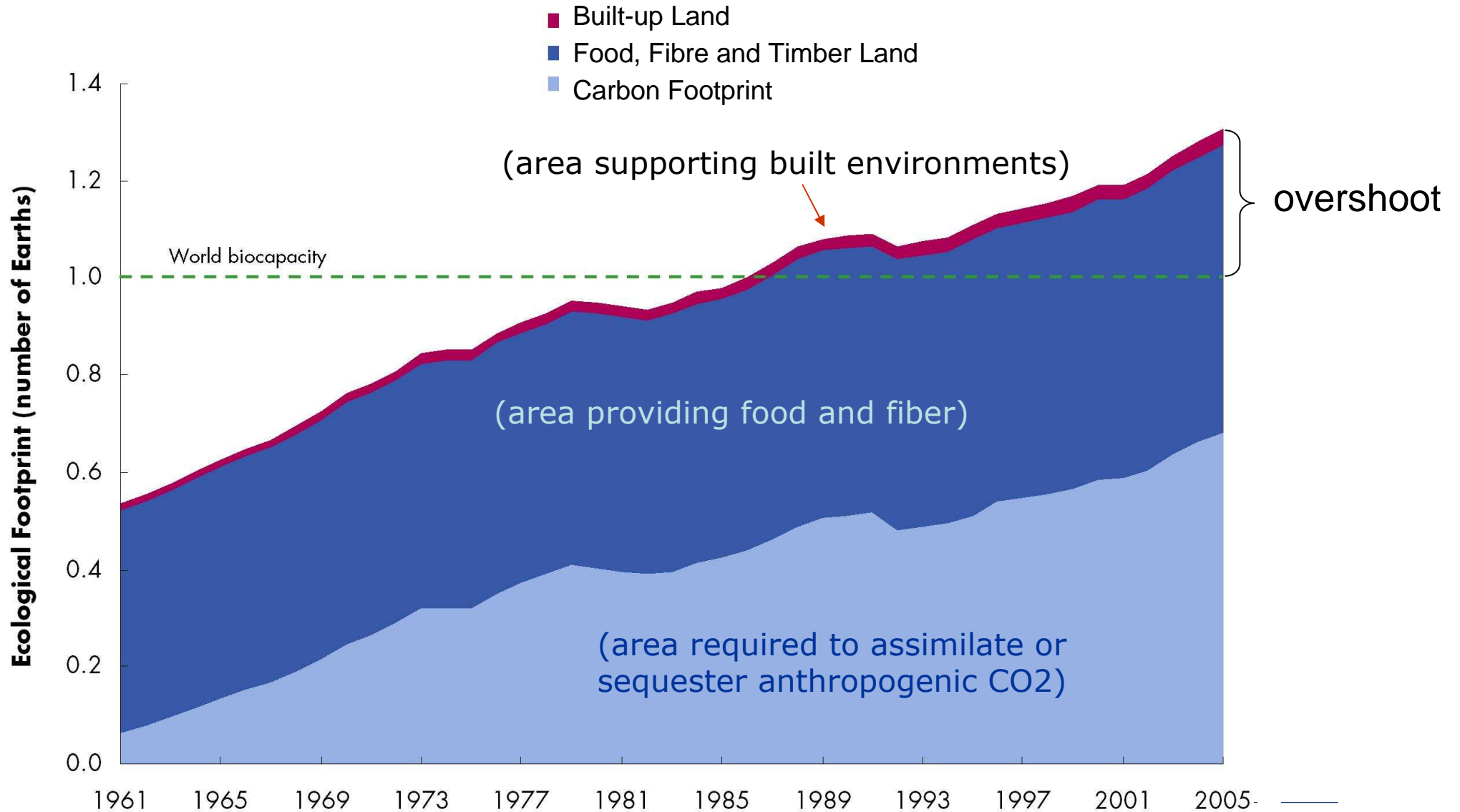




# Global Footprint for land types

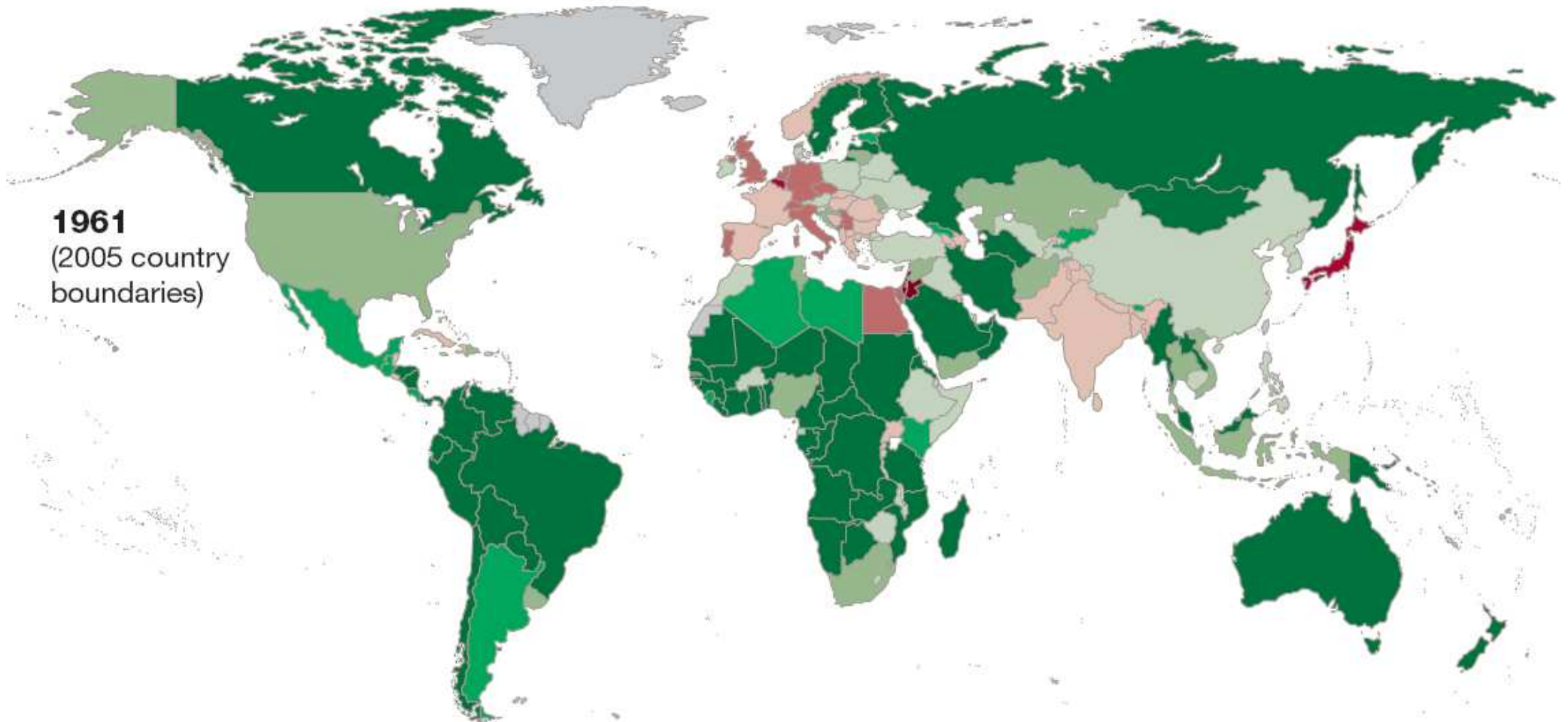


## Humanity's Ecological Footprint, 1961-2005



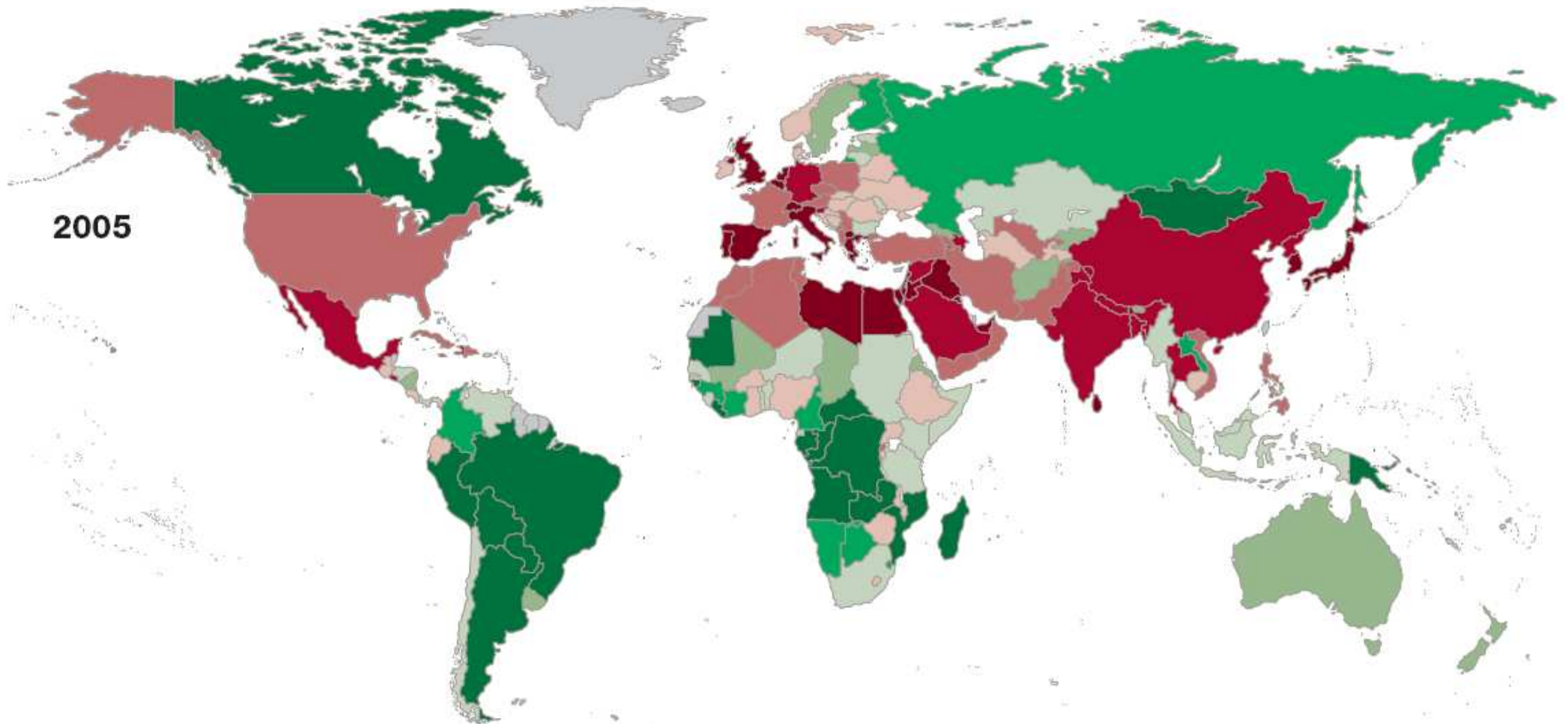


# Ecological Creditors and Ecological Debtors





# Ecological Creditors and Ecological Debtors



CALCULATION METHODOLOGY  
FOR THE NATIONAL FOOTPRINT  
ACCOUNTS, 2008 EDITION  
Version 1.0

28 OCTOBER 2008



THE ECOLOGICAL FOOTPRINT  
ATLAS 2008  
Version 1.0



GUIDEBOOK TO THE NATIONAL  
FOOTPRINT ACCOUNTS 2008  
VERSION 1.0

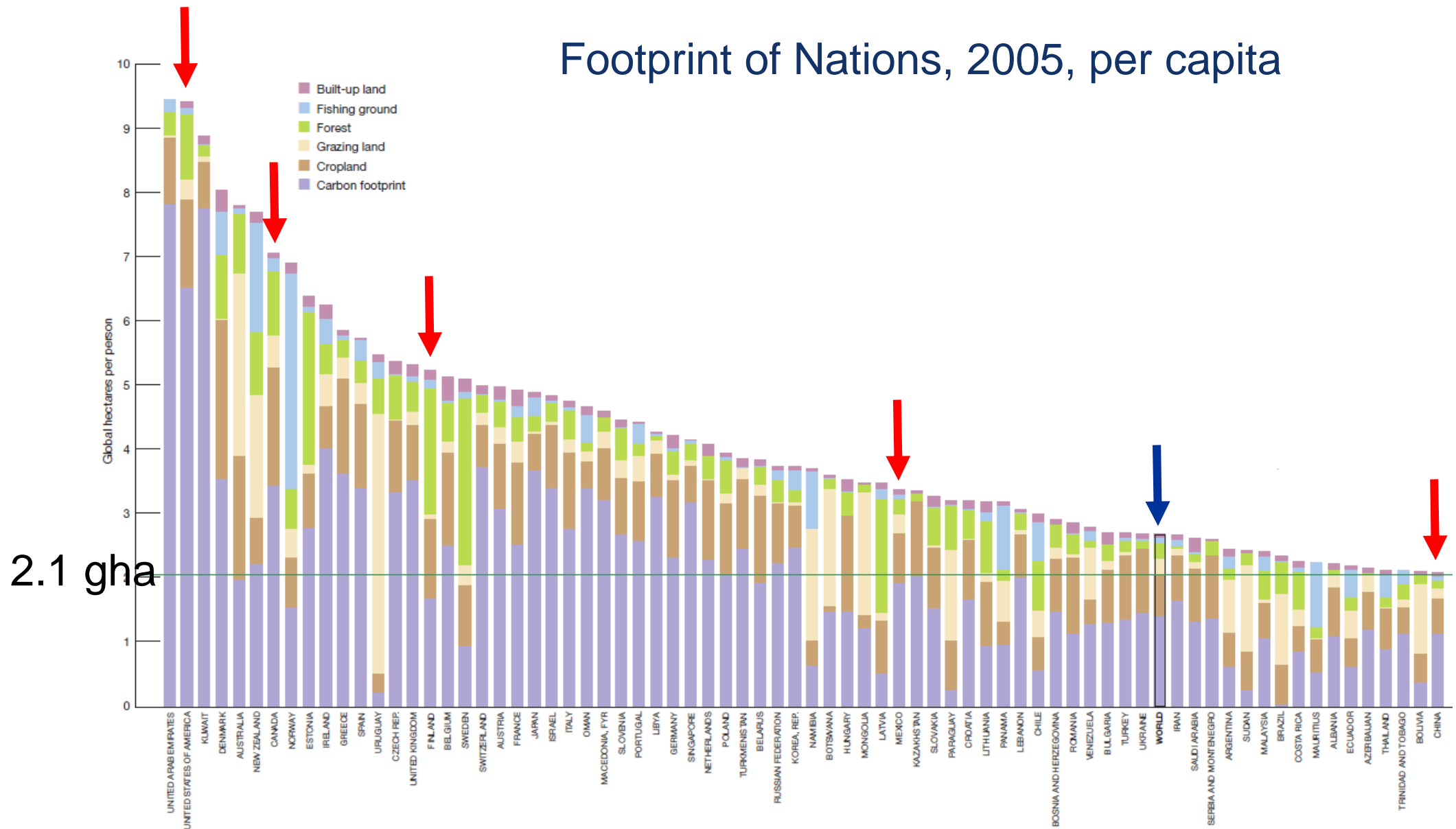
28 OCTOBER 2008

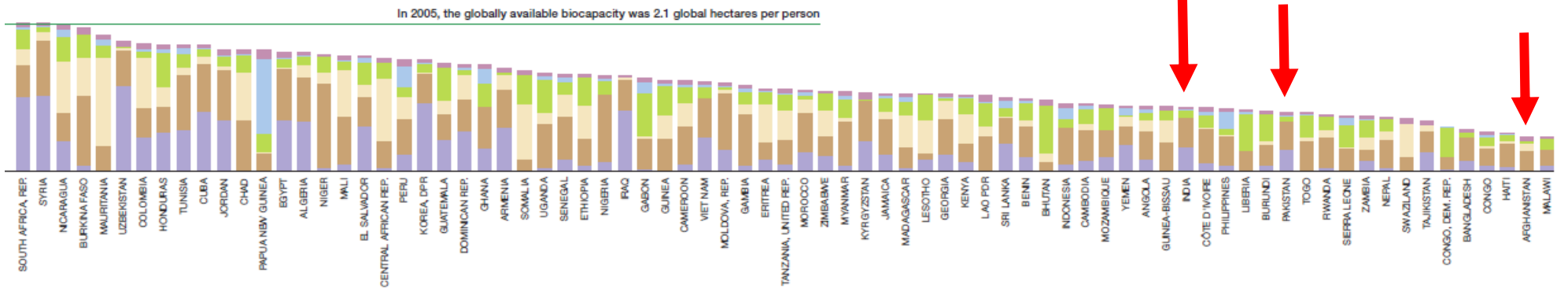


[www.footprintnetwork.org/atlas](http://www.footprintnetwork.org/atlas)



## Footprint of Nations, 2005, per capita

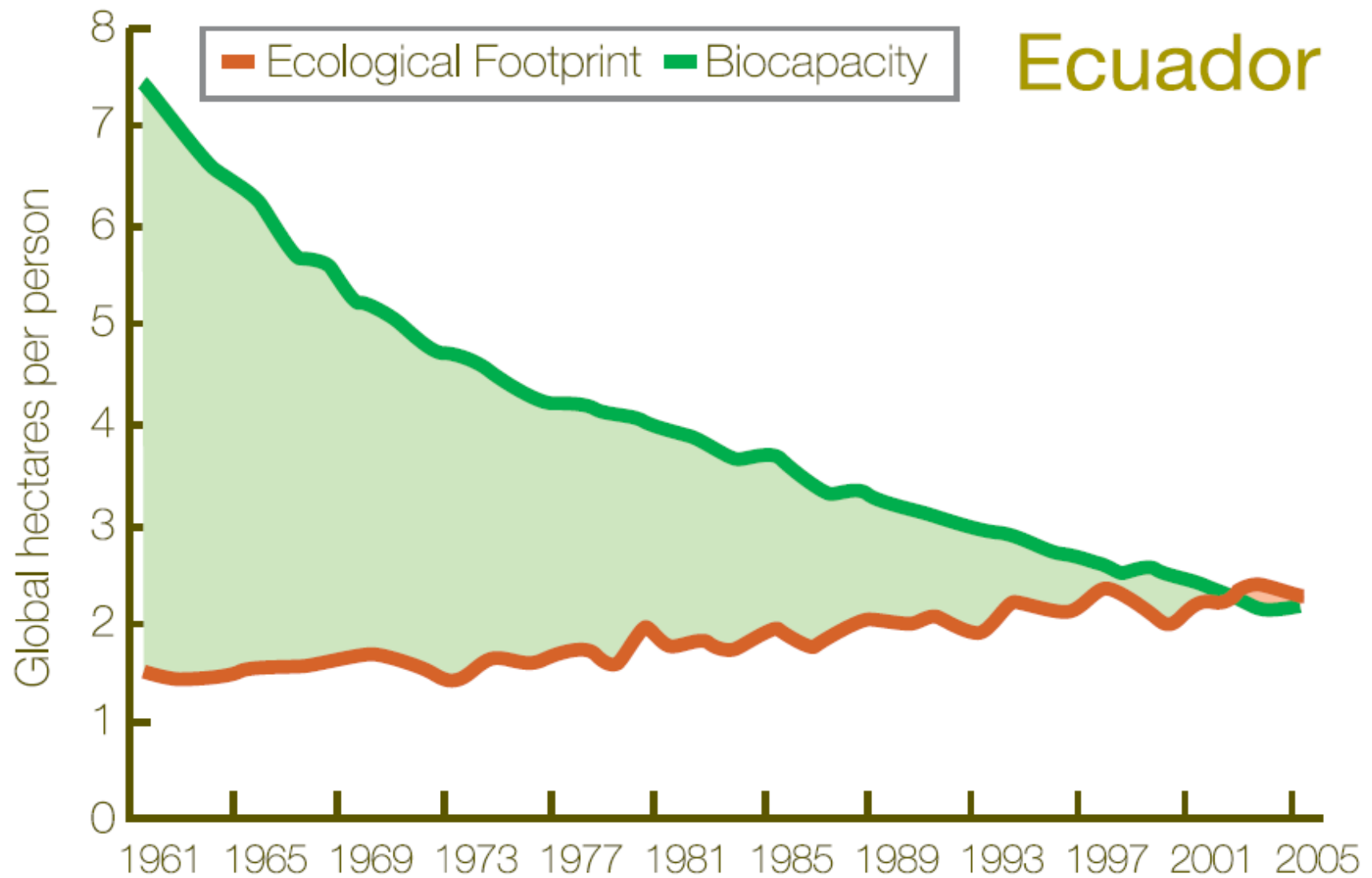




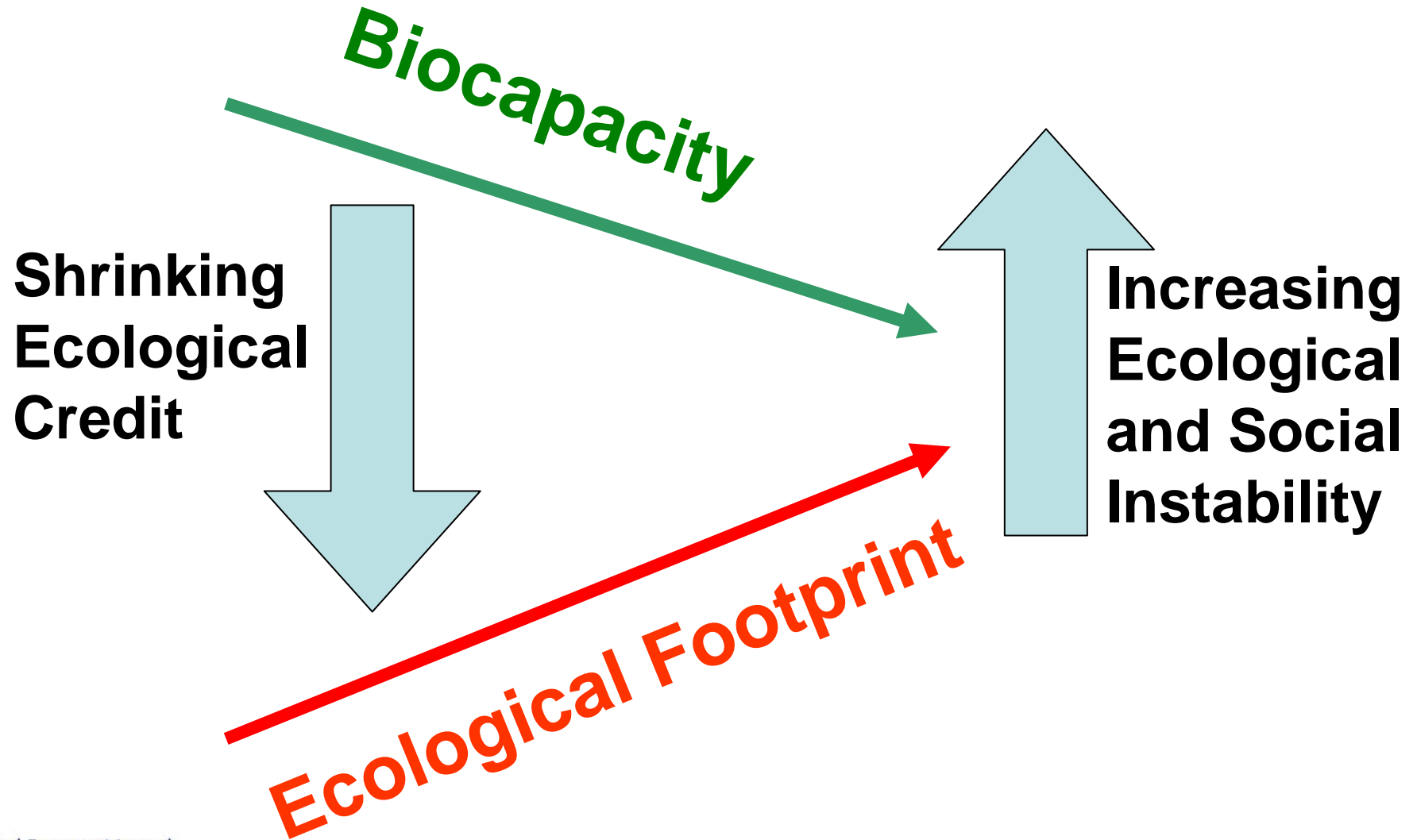


<i>Data for 2005</i>	<b><i>Ecological Footprint</i></b> [global ha /cap]	<b><i>Biocapacity</i></b> [global ha/cap]
Brazil	2.4	7.3
China	2.1	0.9
Egypt	1.7	0.4
Italy	4.8	1.2
Japan	4.9	0.6
Russia	3.7	8.1
Mexico	3.4	1.7
US	9.4	5.0
<b>WORLD</b>	<b>2.7</b>	<b>2.1</b>



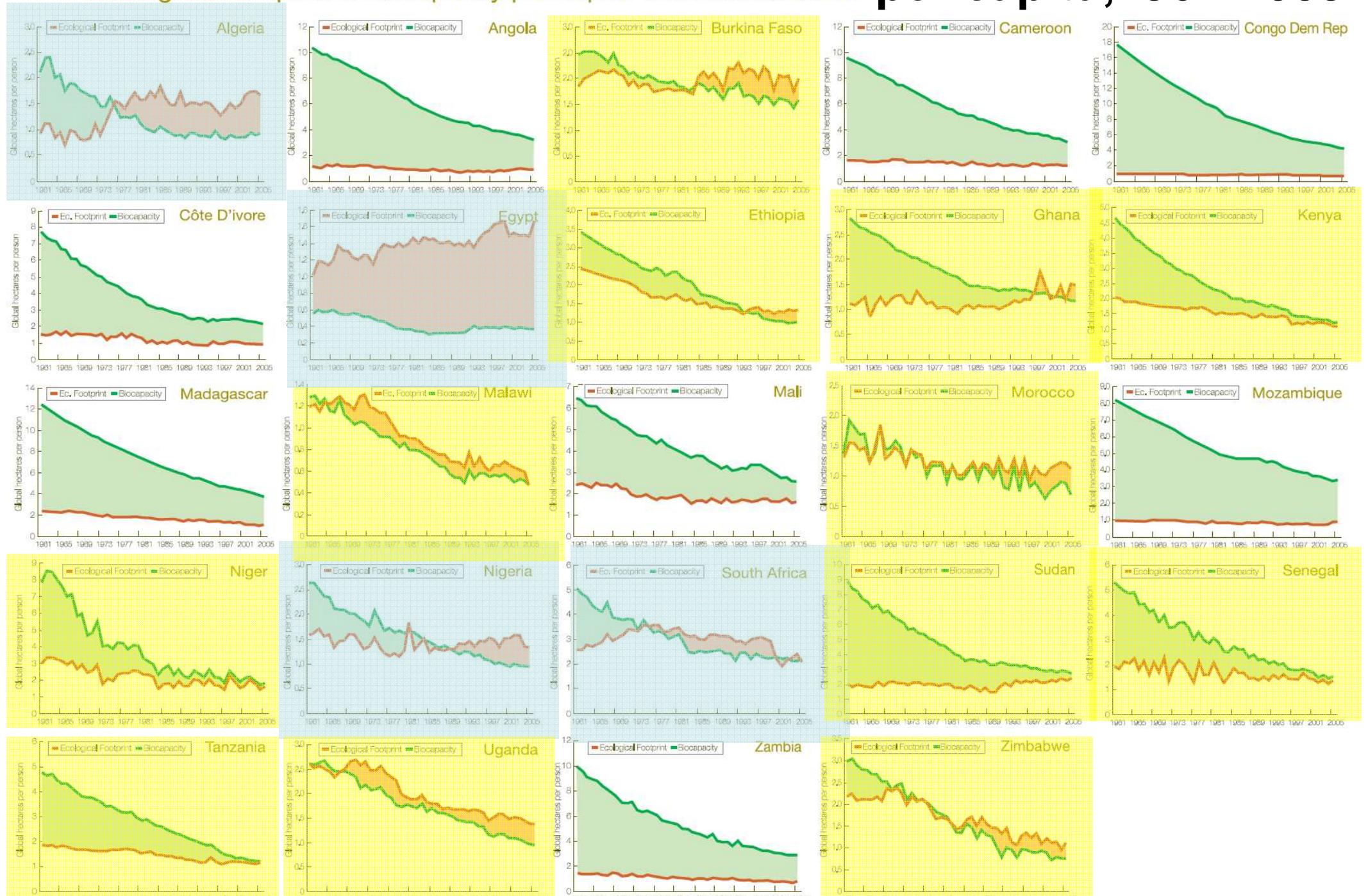


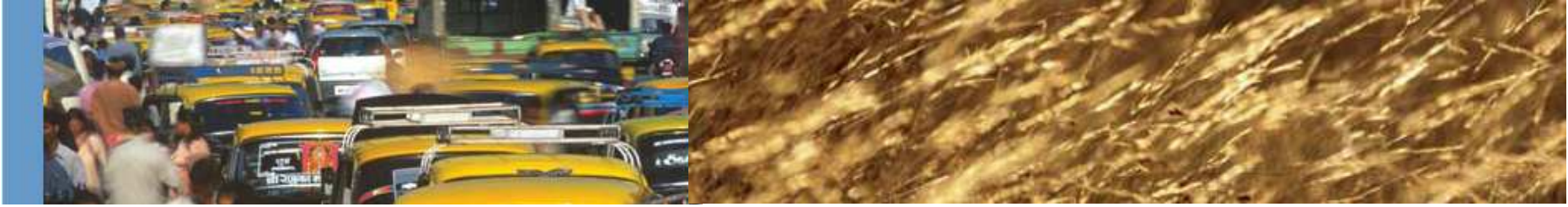




# Ecological Creditors and Ecological Debtors in Africa

Fig. N°13 Ecological Footprint & Biocapacity per capita 1961-2005. Africa per capita, 1961-2005





## What do these graphs show?

All 24 countries are loosing biocapacity per capita rapidly

4 have assets to afford import and fossil fuel burning

12 countries' development is limited by their (declining) biocapacity – leading to SEVERE conflicts



# **PIONEER COUNTRIES SO FAR**

***Switzerland***

***Japan***

***United Arab Emirates***

***Belgium***

***Ecuador***

***Luxembourg***

***Finland***

***EU***





Why  
UAE?



# Tools for Change

Footprint shows:

- Time trends (broken up by drivers and components)
- Split up by activities
- “What if” to assess impact on turning around trends



## Vision (phase I, II, & III)

Phase I – VALIDATE - Start with a boring report verifying the validity of the basic numbers (are numbers good enough?). Both Biocapacity and Footprint trends

Phase II – INTERPRET - Based on this report, run engagement workshops with broad constituencies – finance ministries, economics professors, environmental scientists to capture wide range of opinions (inside the tent). Ask questions

Phase III – APPLY – Tools for decision-making

How will **overshoot** play out?



How can we **operate** without knowing  
how much nature **we have**, and  
how much **We use**?

Are we **better** off with **no estimates**  
than with imperfect estimates?

What **countries** should we **bet on**?

Where is the **self-interest** for  
**nations** in this new era?

What **strategies** also turn the global  
**economy** into a **positive-sum**  
game?

What actions will succeed if  
**Copenhagen** fails?

Which **innovations** are needed  
to reverse global **overshoot**?

Who are the **winners** of the  
21<sup>st</sup> century?



We may not have all the **answers**, but  
we're asking pertinent **questions**

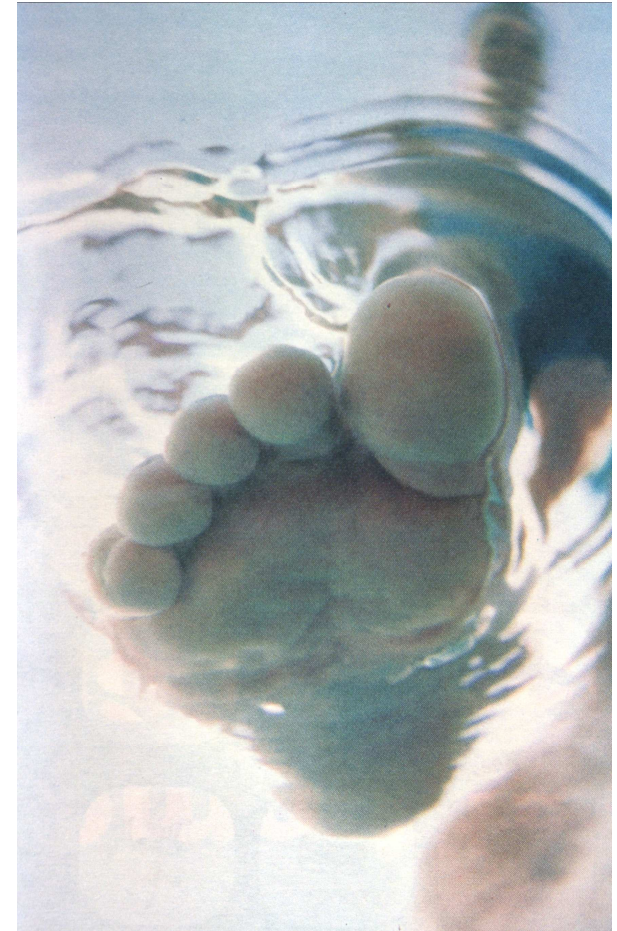
Are *you*?



Get ready for “peak everything.”  
For cities, states and nations, the  
benefit of acting is overwhelming.

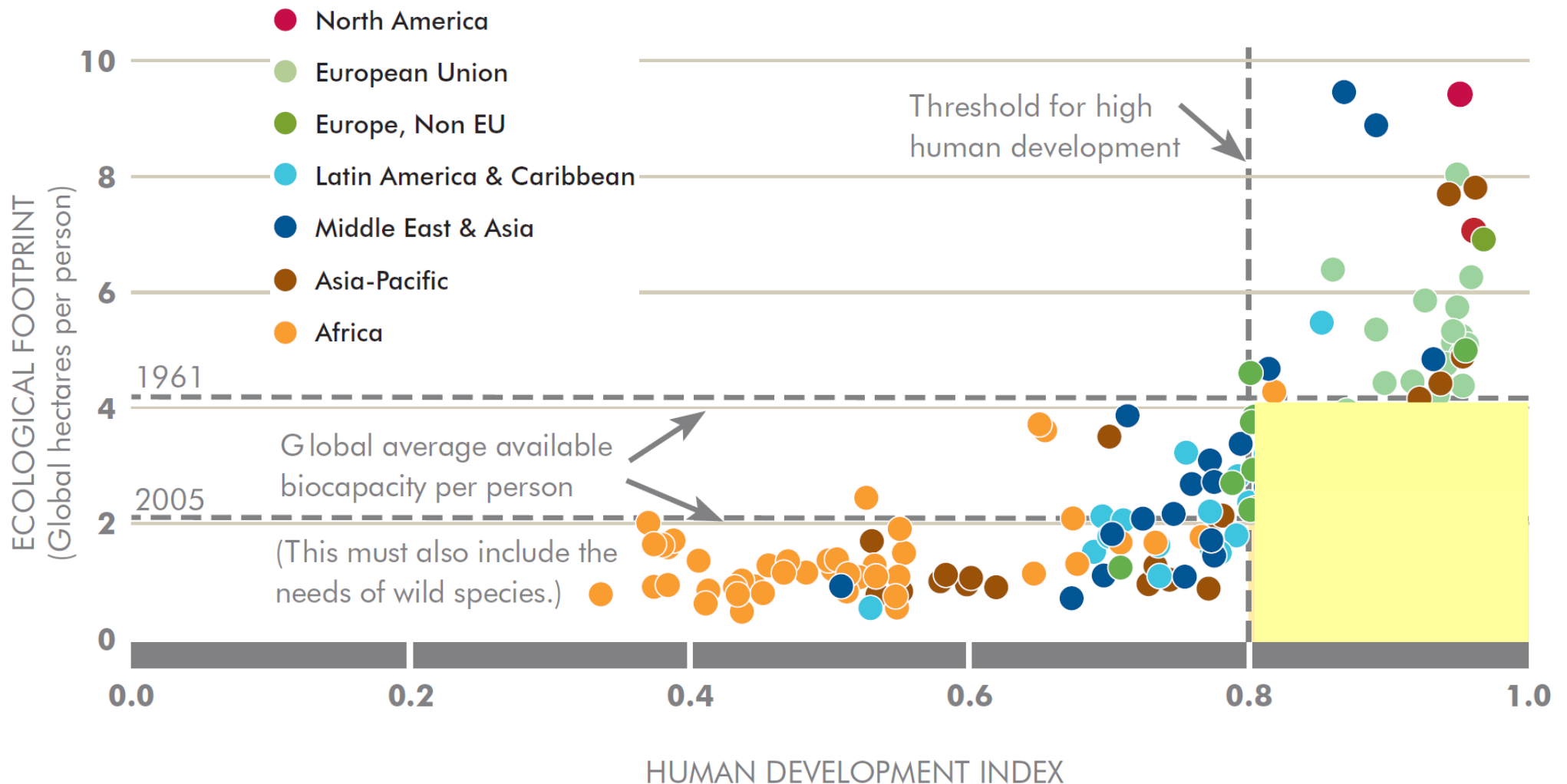
Will **Hungary** be  
a leader or laggard?

*mathis@footprintnetwork.org*





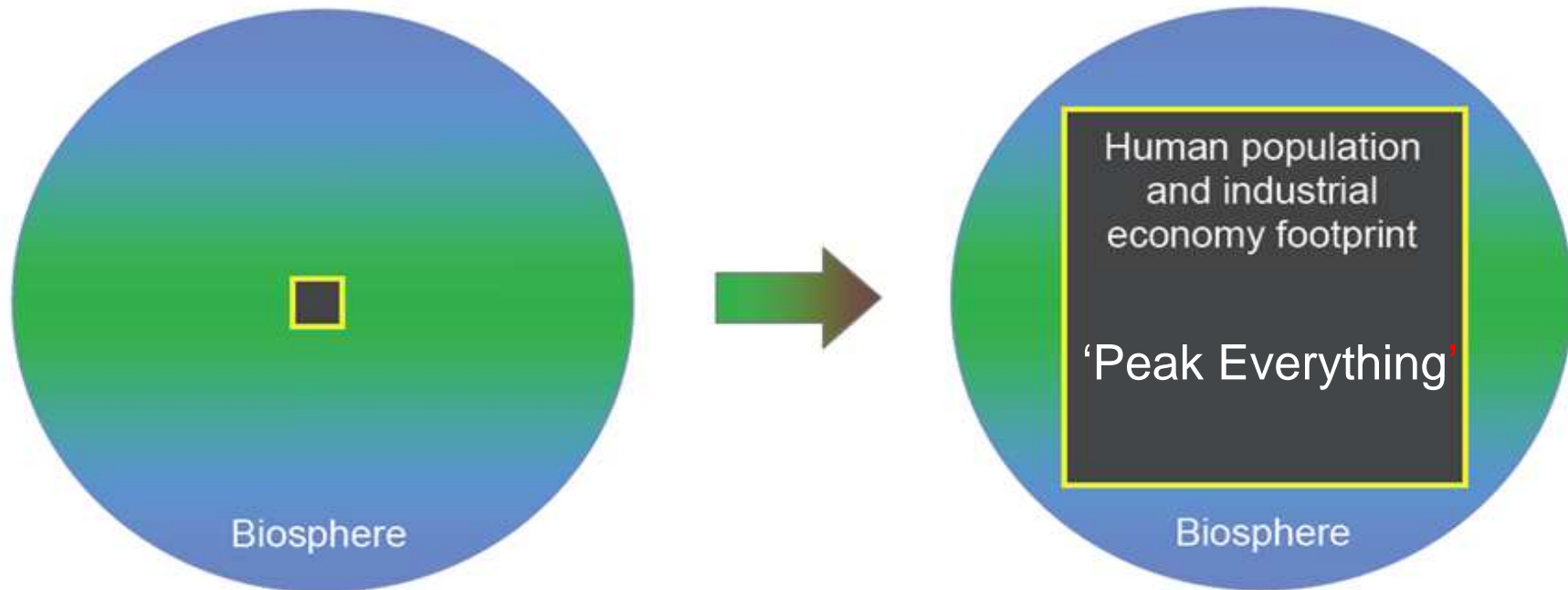
## How close to global sustainability are we today?





Why now and not before?

## From 'empty world' to 'full world'



*Past: localised early industrial economy*

*Present: globalised industrial economy*