

4-5 February 2013, Vienna

Opening Session: The linkages between energy and environment and their impact on security and co-operation

ENGLISH only

Mr. Sebastian Winkler, Director for Europe, Global Footprint Network



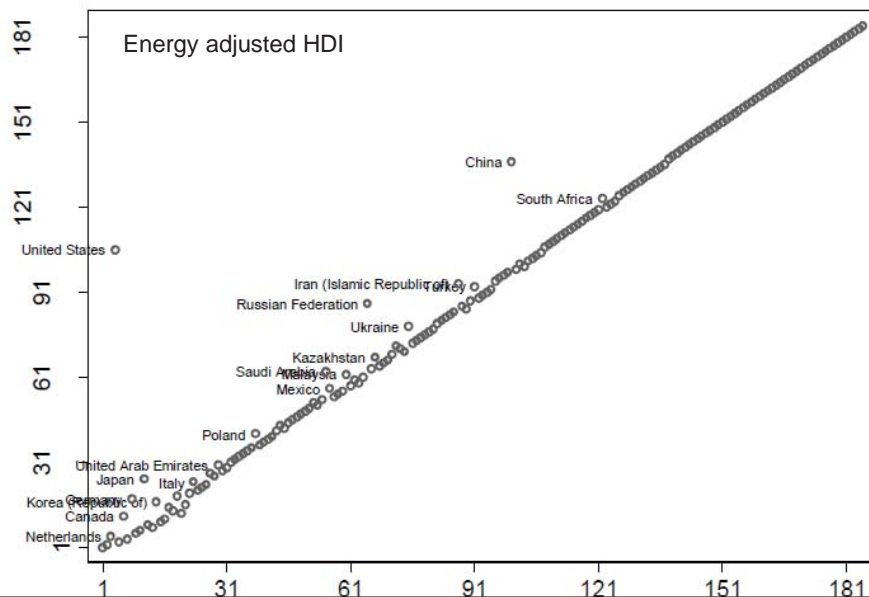
Securing Human Well-being
within the Means of Nature:

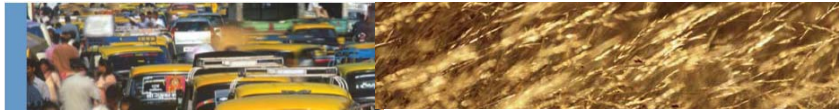
The links between energy and environment and their impact on security and cooperation?

Sebastian Winkler
21st OSCE Economic and Environmental Forum



RESULTS: CHANGES IN RANKING FOR CO₂ PER CAPITA EMISSIONS (20% PROB. OF EXCEEDING 2C)





Rare Earths? →

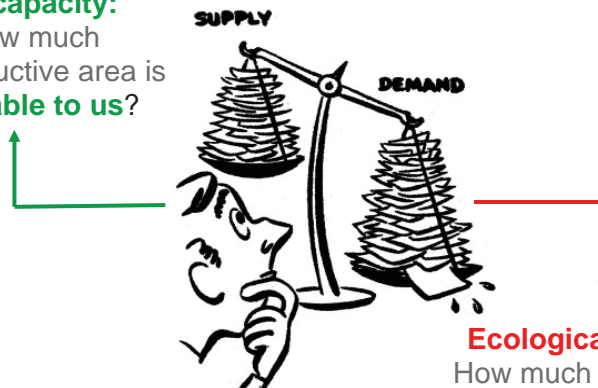
Fossil Fuel? → ^{5X} Move out of fossil?
1700 ppm?

Biocapacity!
The Food-Water-Energy Nexus



Accounting Framework for Energy and Ecosystem Services

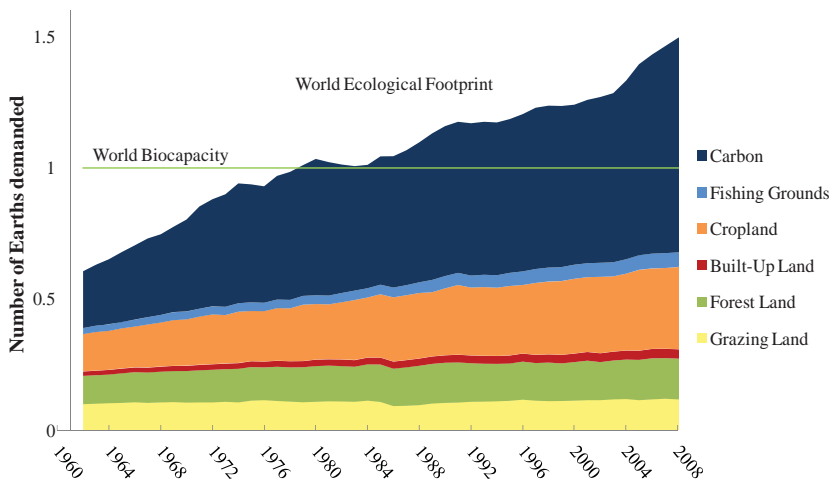
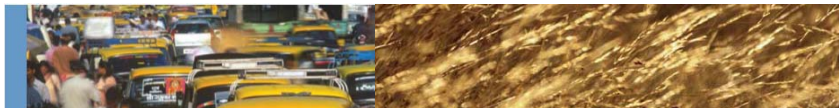
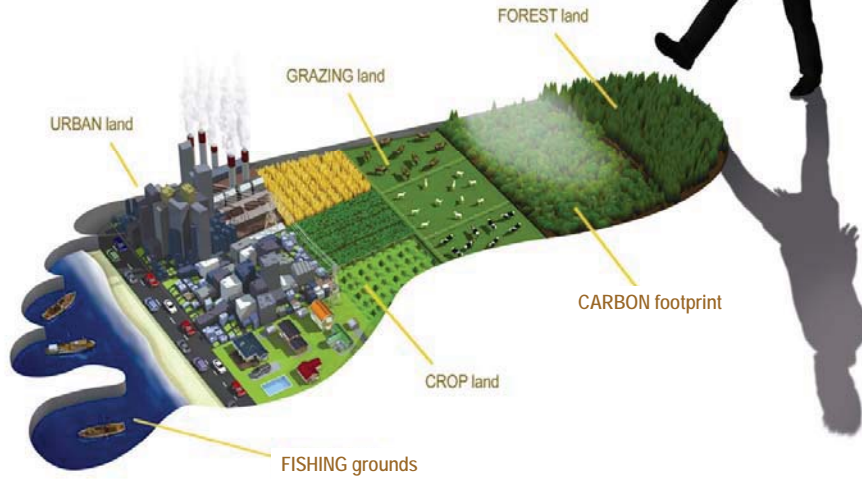
Biocapacity:
How much bioproductive area is available to us?

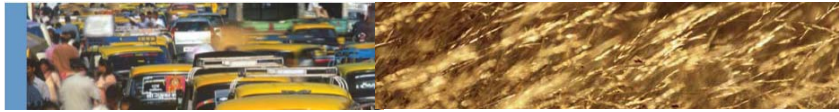


Ecological Footprint:
How much bioproductive area do we demand?

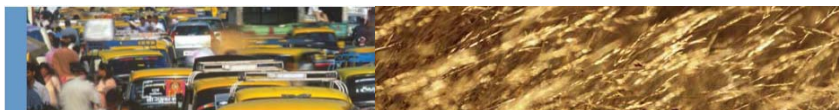
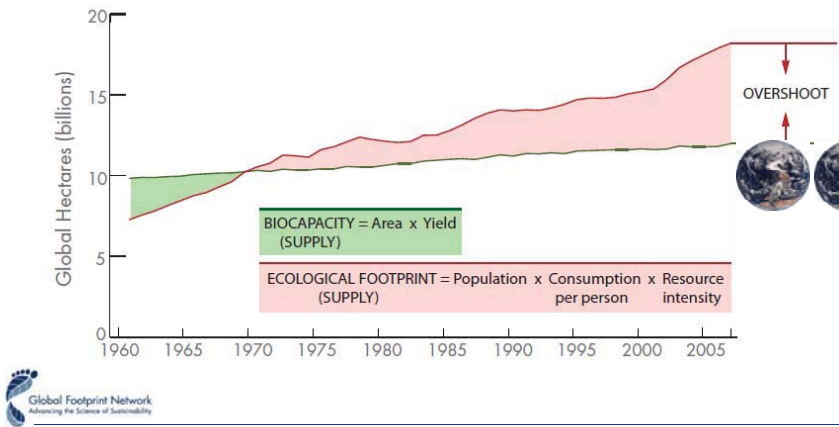


The Ecological Footprint

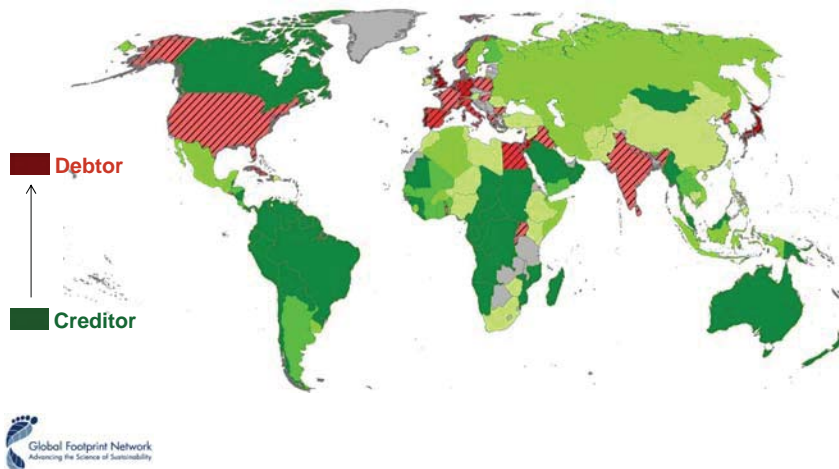


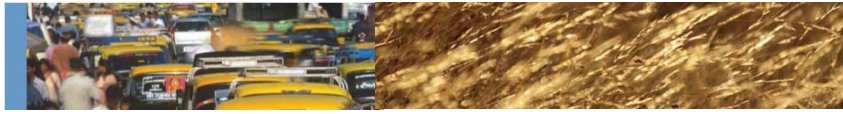


Humanity's Ecological Footprint and biocapacity, 1961 – 2008

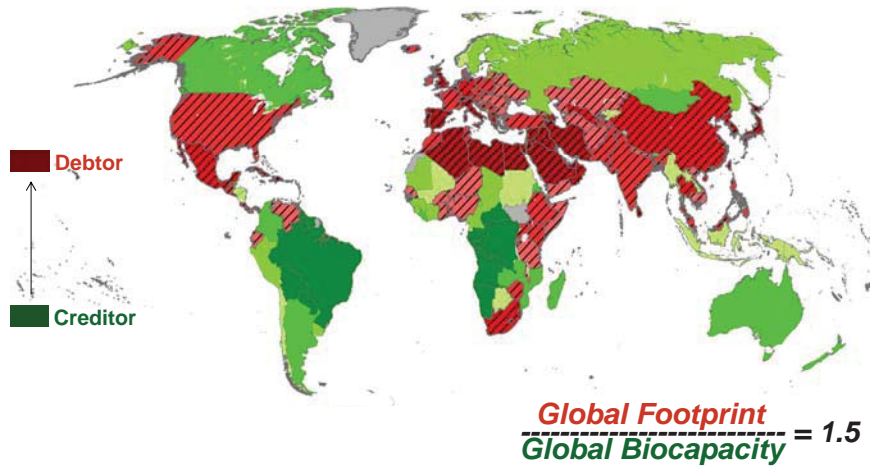


Ecological Creditors and Ecological Debtors – 1961



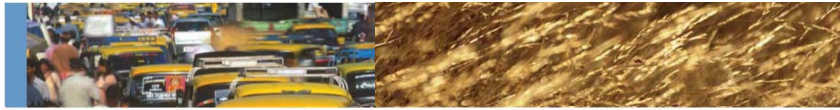


Ecological Creditors and Ecological Debtors – 2008



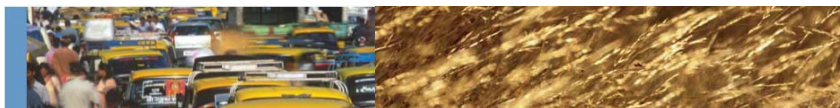
What happens when
an infinite-growth
economy runs into a
finite planet?

Global Footprint Network
2011 Annual Report



Framing question:

What do you need to know in order to operate “the plane” safely?



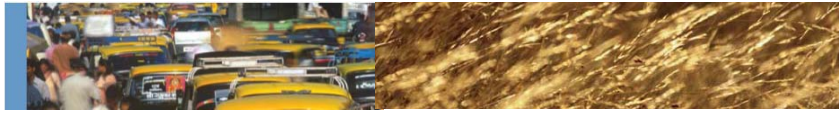
Dilemma:

Sustainable
How many
resources does it
take compared to
what we have?
Footprint?

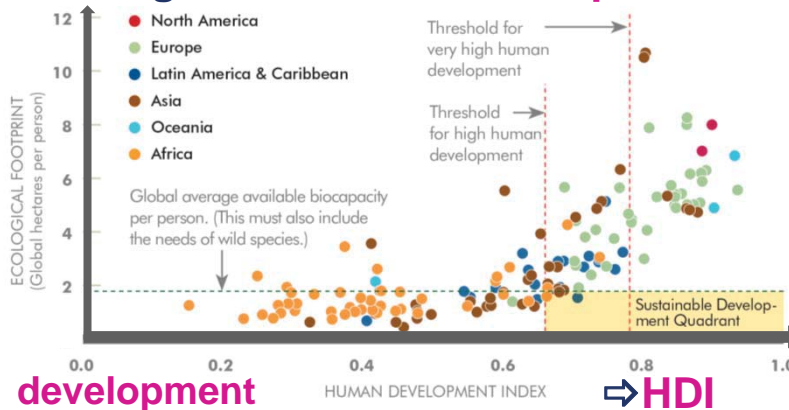


Development
How well do
we live?
HDI?

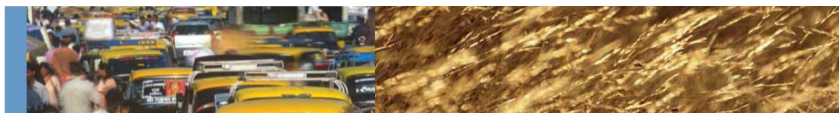




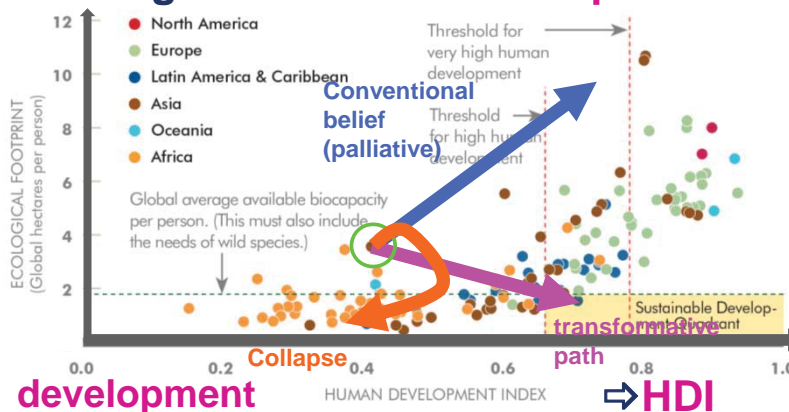
Measuring “sustainable development”



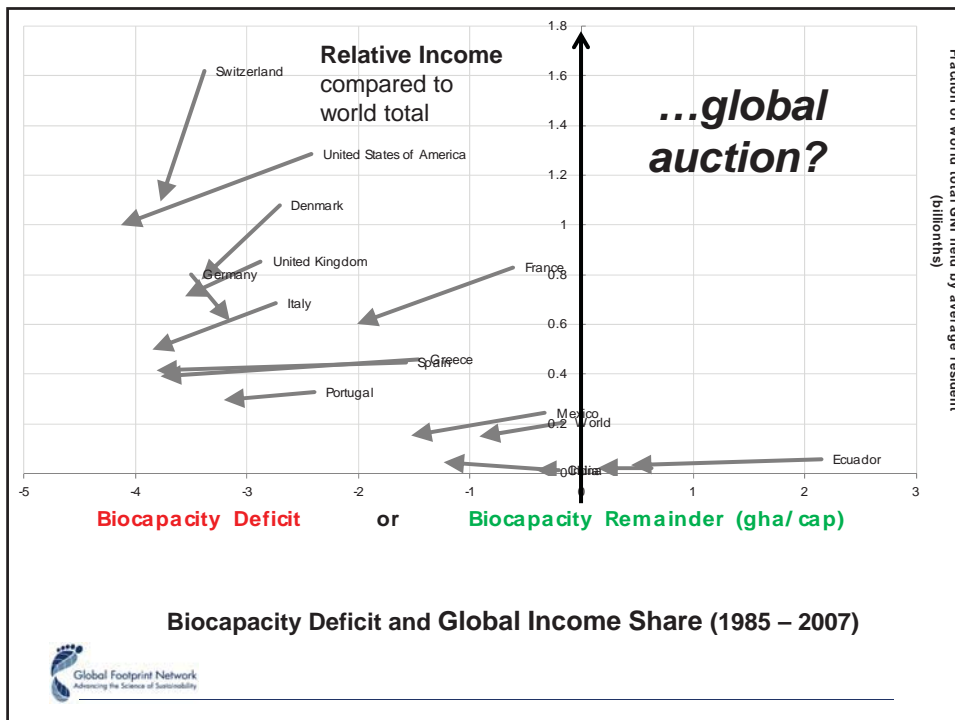
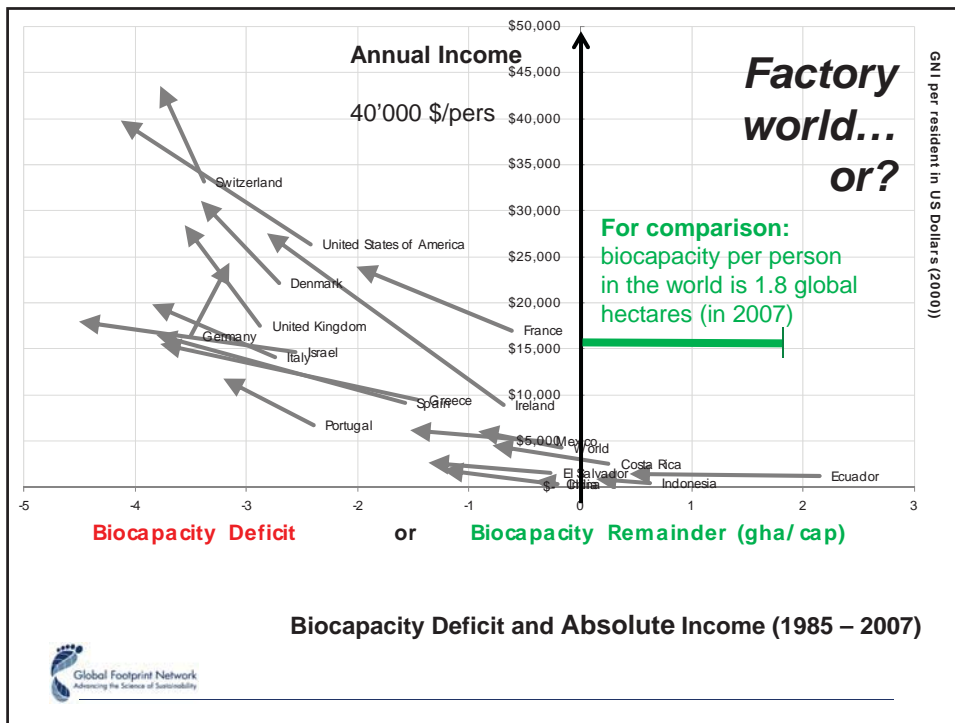
⇨ Sustainable (fits on one planet?)

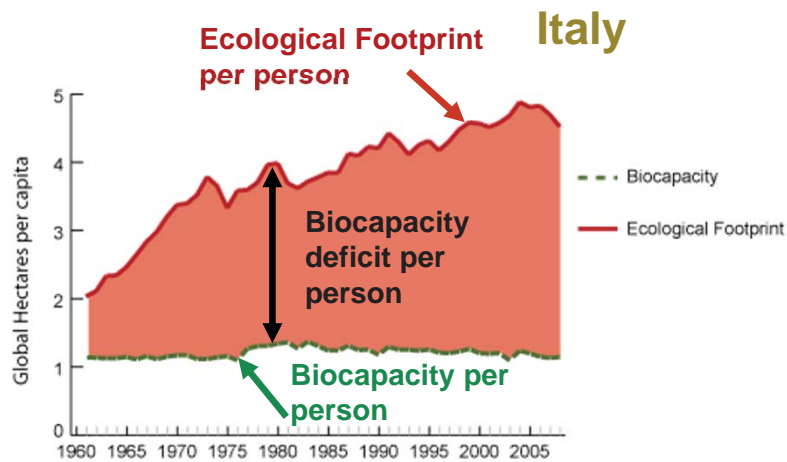
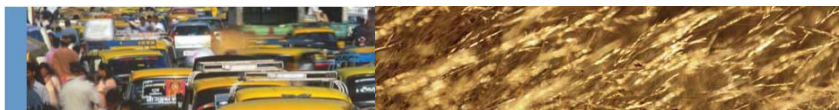
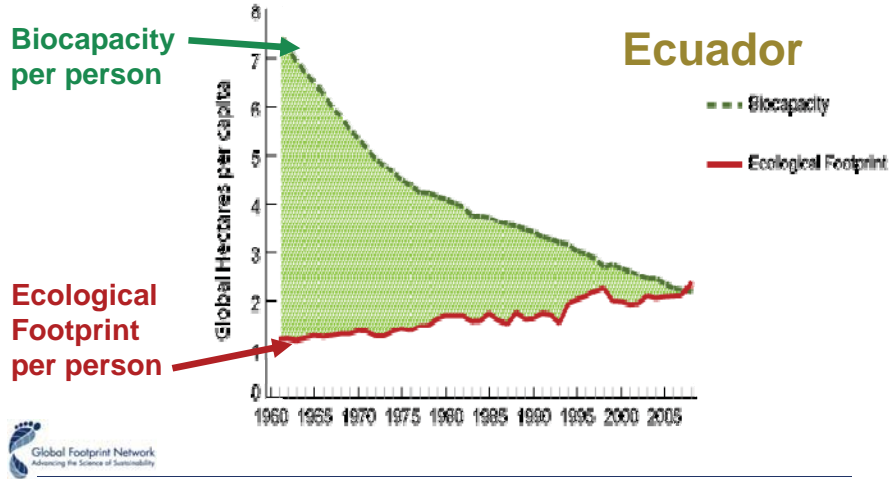
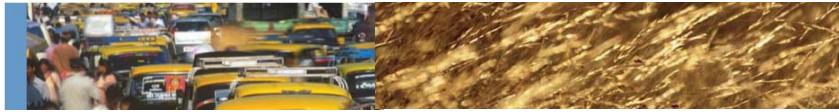


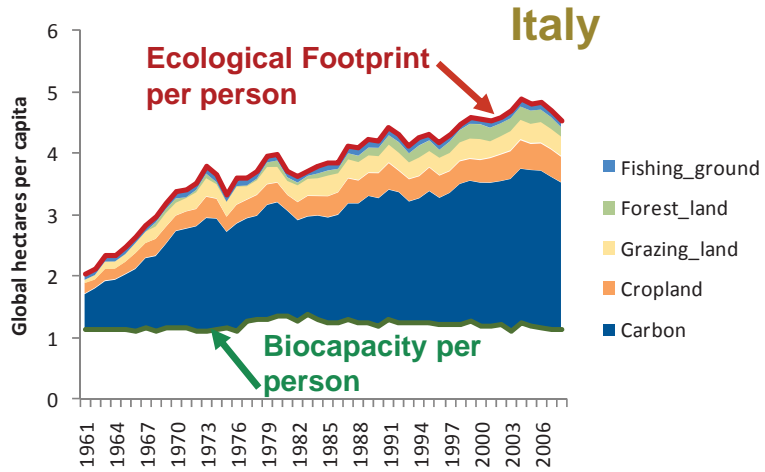
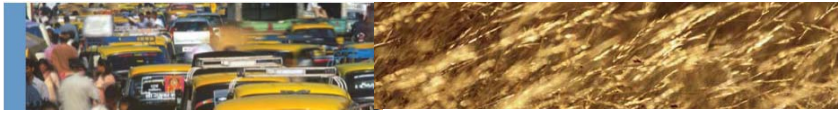
Measuring “sustainable development”



⇨ Sustainable (fits on one planet?)







Composition of Italy's Biocapacity Deficit

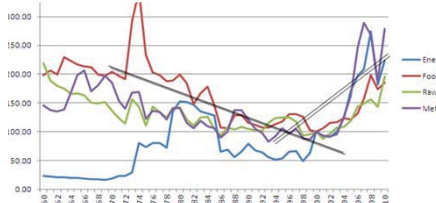
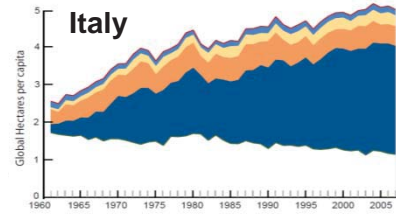
Biocapacity Deficit

X

World Commodity Prices

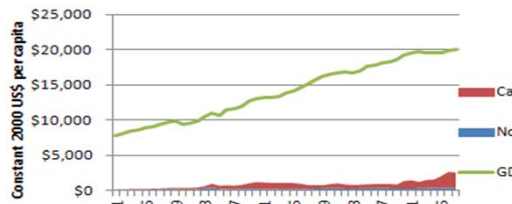
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Cost of Biocapacity Deficit



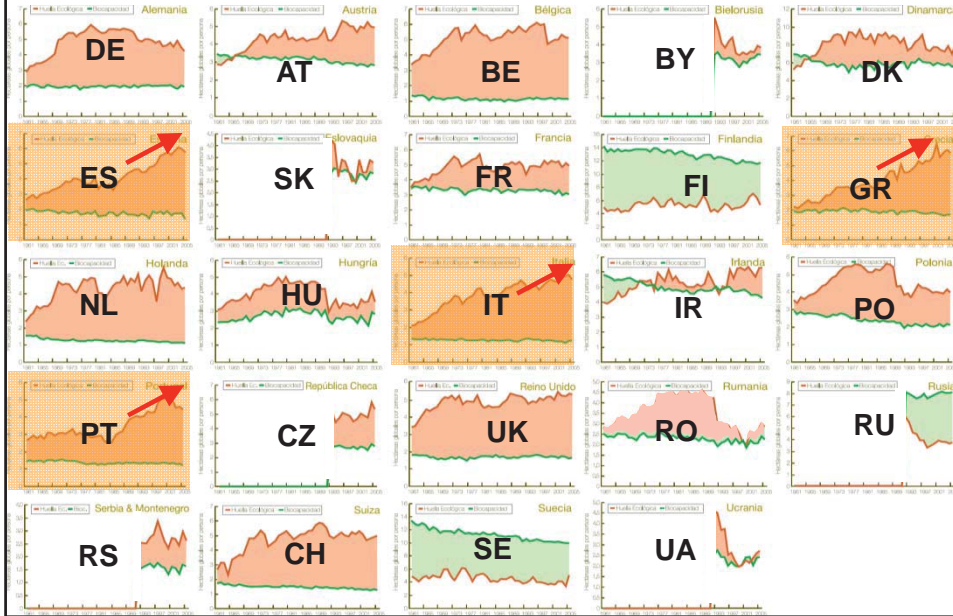
Cost of Biocapacity Deficit

Italy



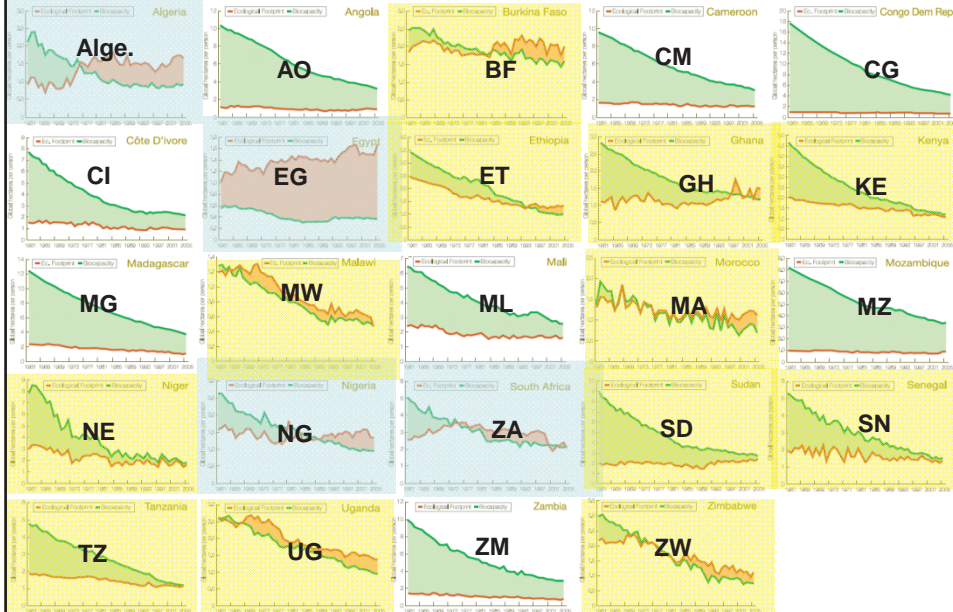
Ecological Creditors and Ecological Debtors in Europe

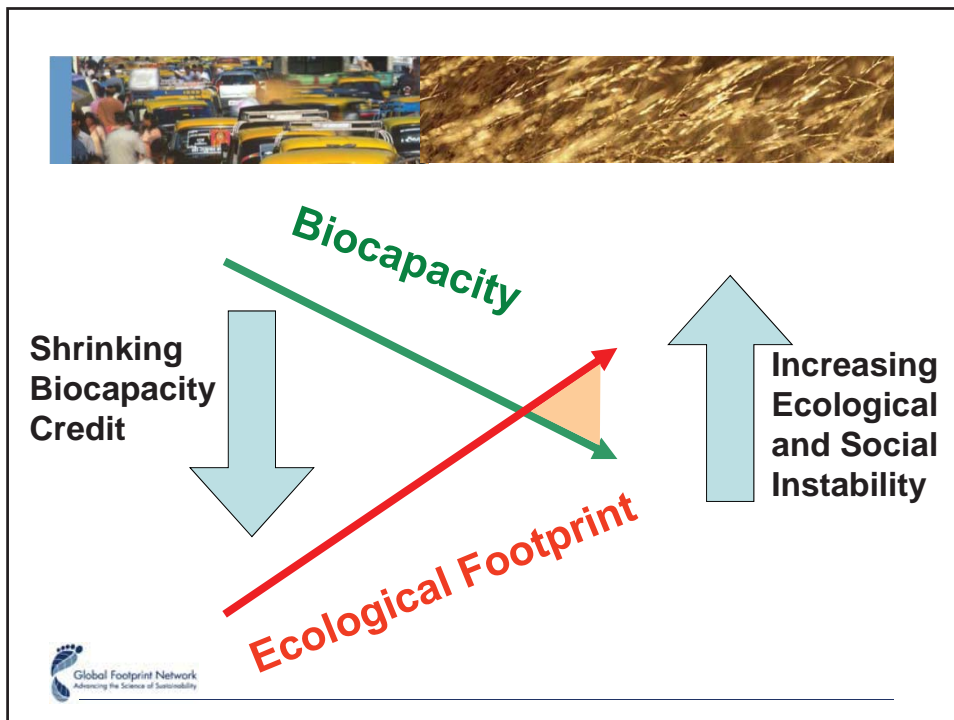
Ecological Footprint and Biocapacity PER CAPITA, 1961-2005



Ecological Creditors and Ecological Debtors in Africa

Ecological Footprint and Biocapacity PER CAPITA, 1961-2005





New principles for success

- Nature has a budget. Do you know **how much biocapacity you have?** and **how much you use?**
- Biocapacity is the currency of the 21st century. Key to prosperity.
- Self-interest for countries, cities to reduce their resource deficit is overwhelming.
- How does development work within the resource constraints of ecosystems?

Global Footprint Network
Advancing the Science of Sustainability

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Director for Europe
Global Footprint Network

Thank you!

For more information please visit:

<http://www.footprintnetwork.org/>

