UN-GA 7th OWG on SDGs, 6-10 Jan 2014, New York

SDG‘s and Resource Management

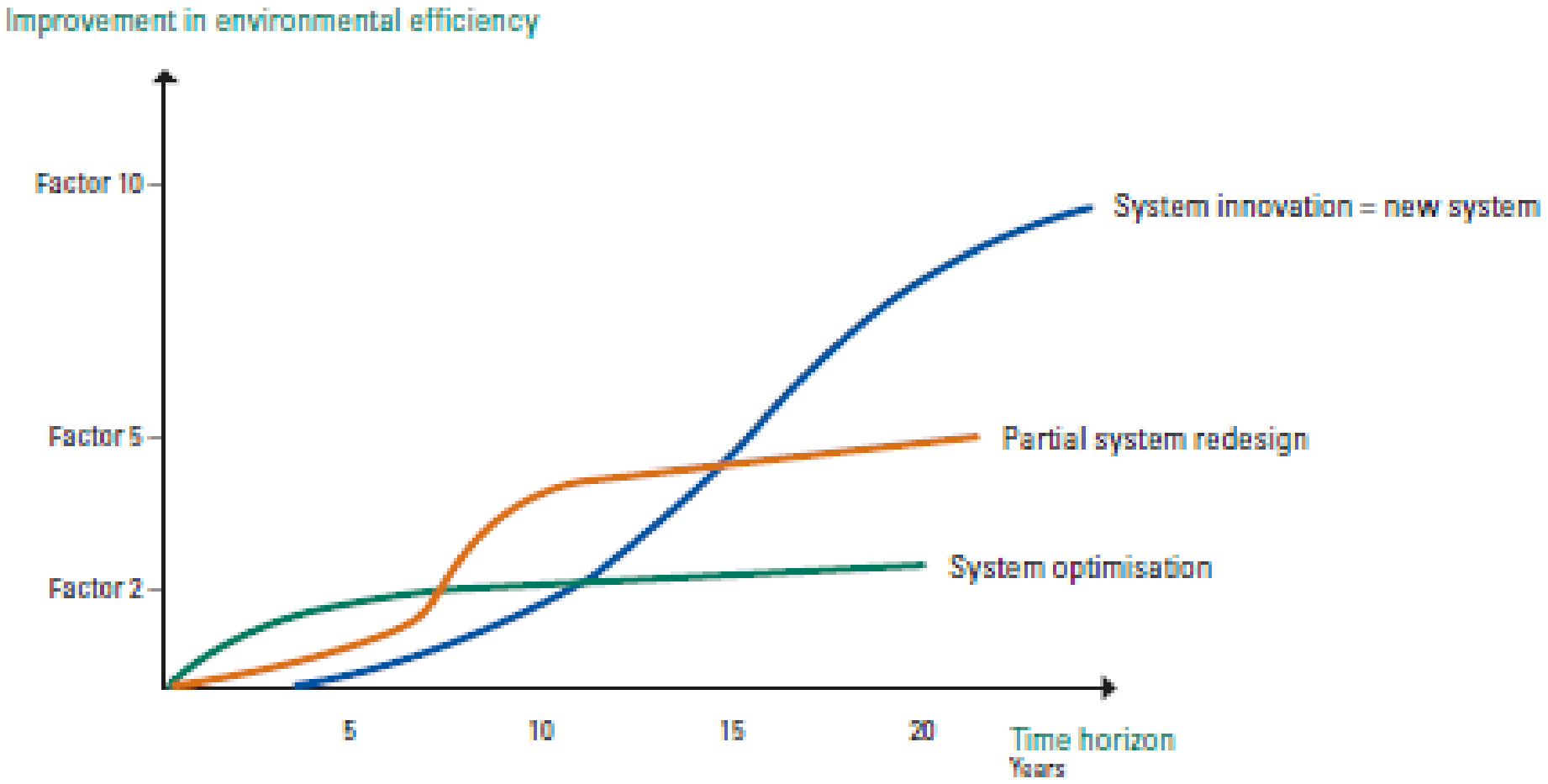
Ernst von Weizsäcker
Co-Chair of the International Resource Panel

"Achieving SCP patterns and decoupling socio-economic development from rising resource use and environmental degradation require major changes to production systems, employment patterns and technologies in every country," …

From: TST Issues Brief Sustainable Consumption and Production, including Chemicals and Waste 2013

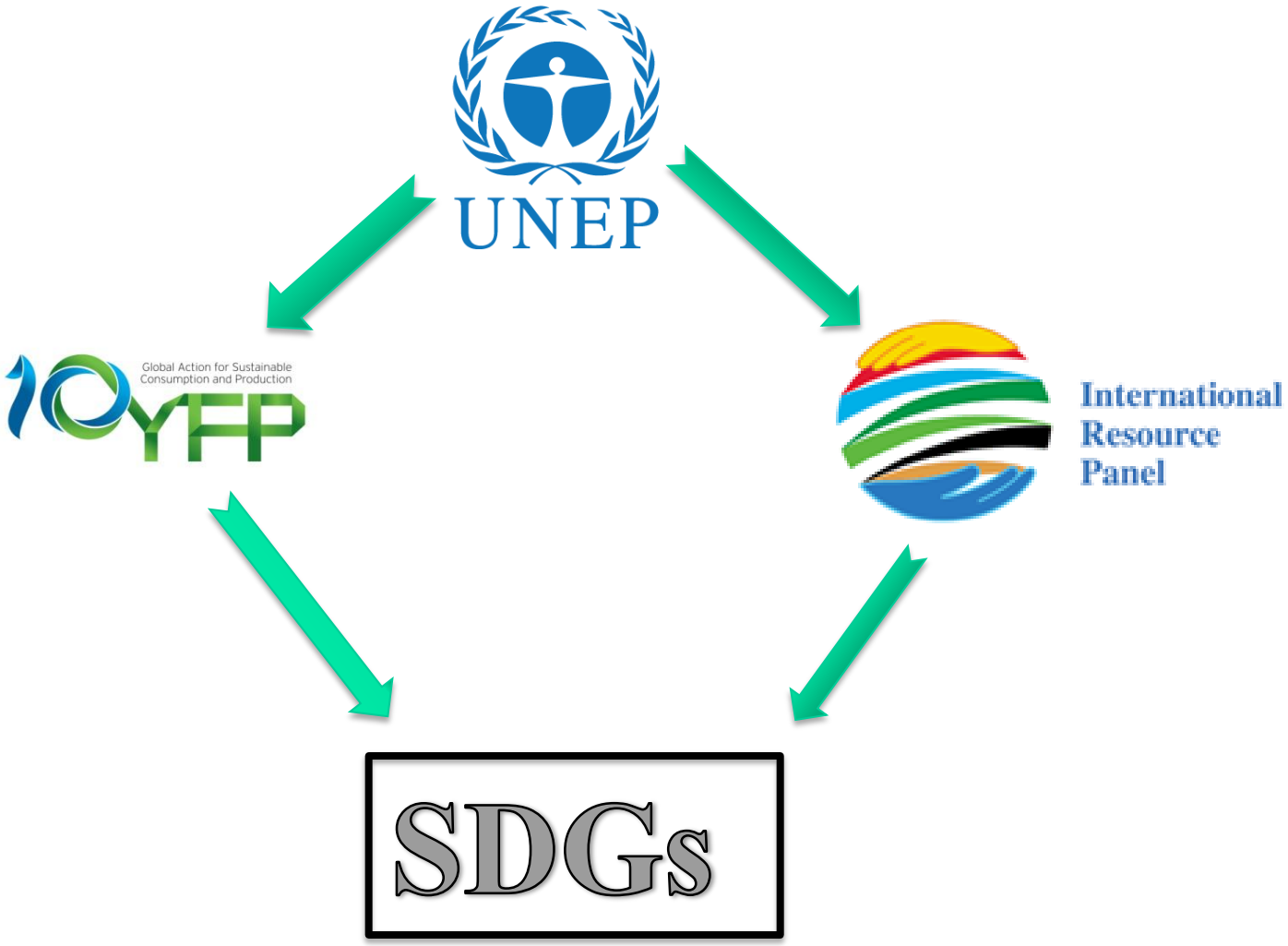
So prepare yourselves to consider major changes.

Major changes mean System innovations

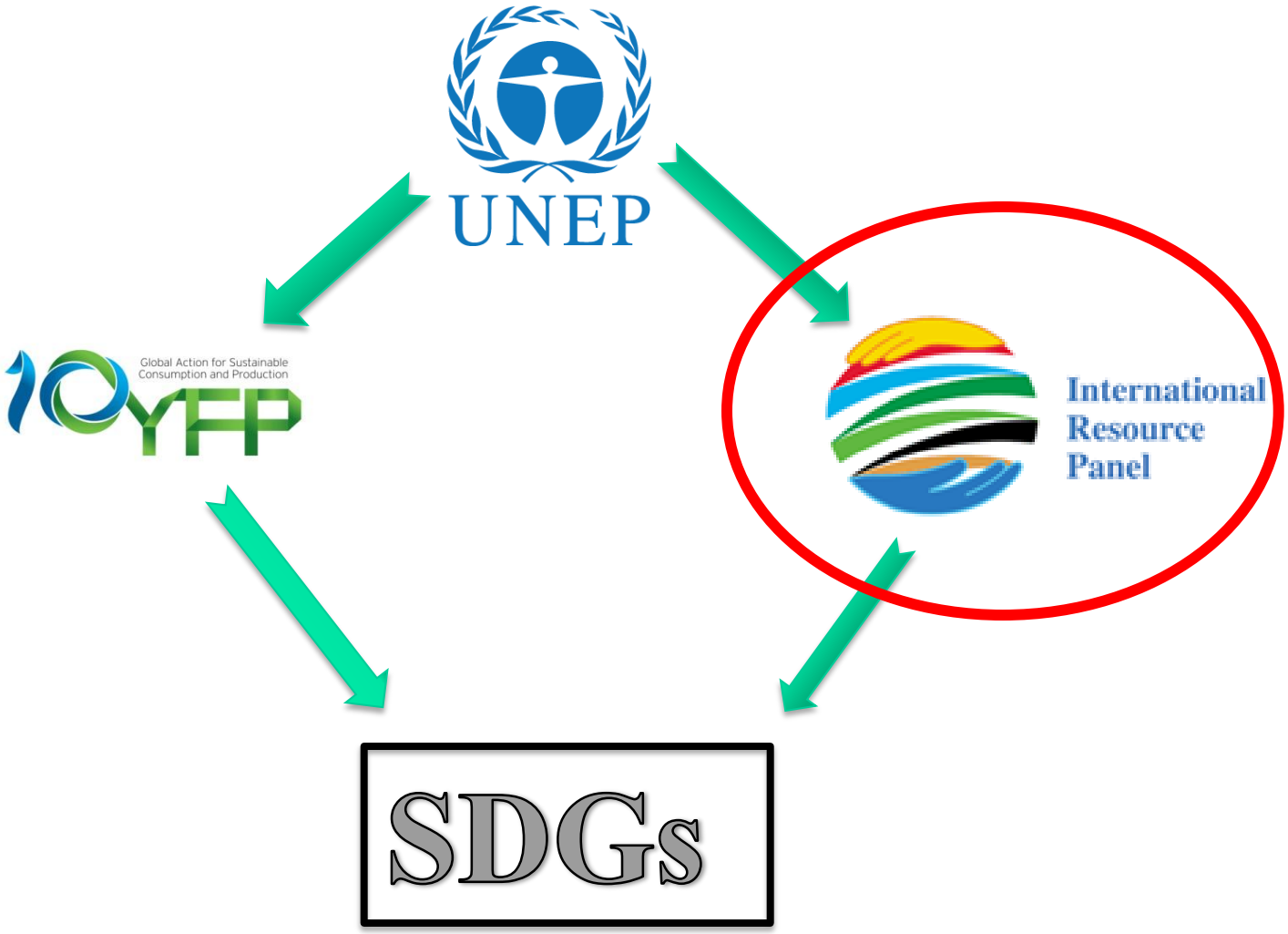


Source: Weterings et. al. 1997

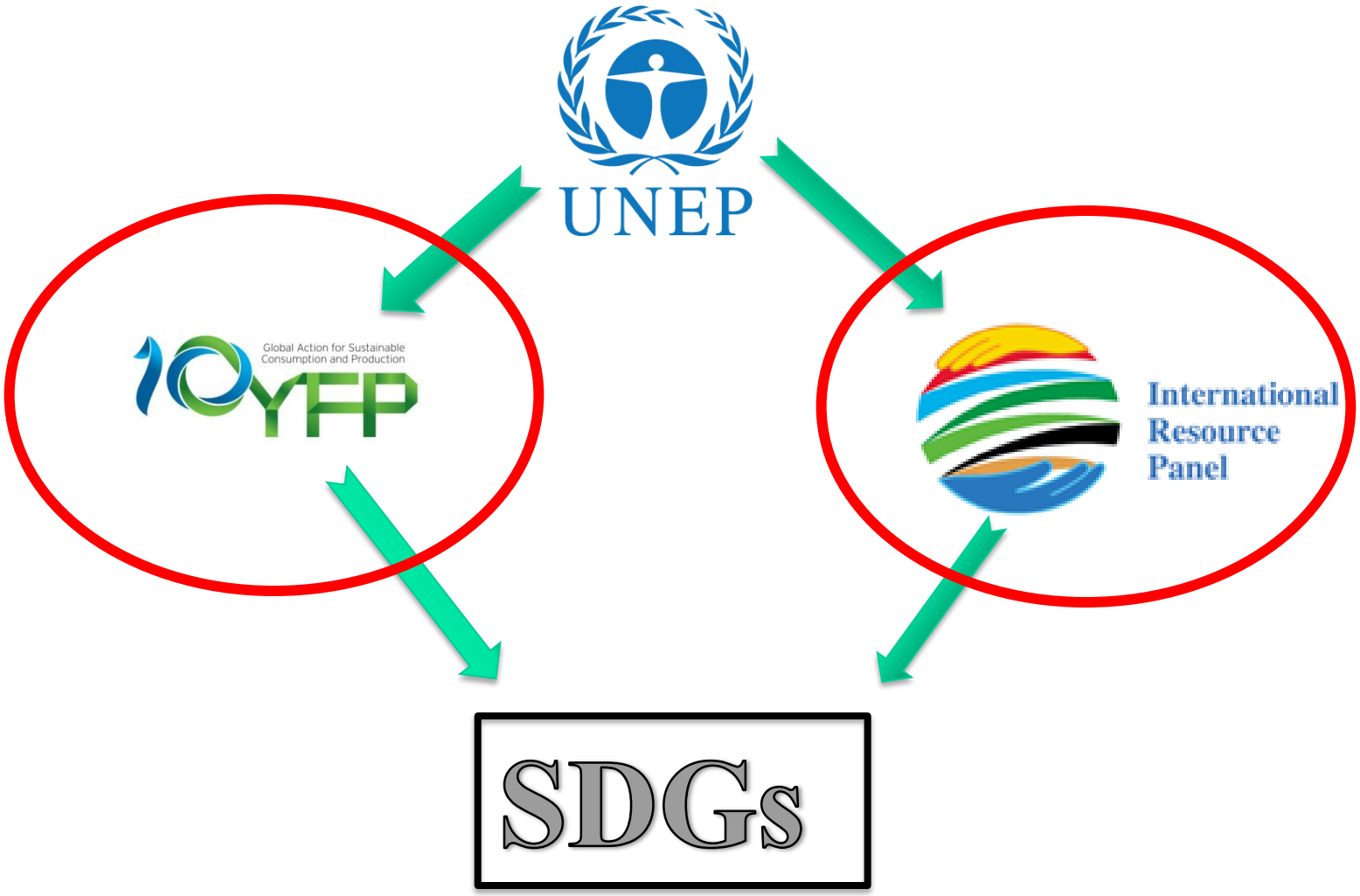
In a Side Event yesterday, Ashok Khosla showed this flow chart on two of UNEP‘s contributions to the SDGs.



My talk will mostly relate to the work of the Int. Resource Panel



… but we absolutely recognize the pivotal importance of SCP. Several Major Groups have put SCP on top of our agenda!



“Most seriously, the MDGs fell short by not addressing the need to promote sustainable patterns of consumption and production.”

UN High-Level Panel of Eminent Persons on the Post-2015 Development Agenda

I am impressed with the contributions to our debate by the Major Groups.

They relate to substance, but also to participatory procedures.

Only if people see the SDG‘s as their own doing, we can hope that this whole exercize will be successful!

International Resource Panel

(IRP)

Dr. Ashok Khosla serves as IRP‘s Co-Chair.

His company „Development Alternatives“, made a draft for the IRP‘s contribution to the SDG‘s discussion.

Our paper shows some of the most exciting opportunities for sustainable technologies and system innovations, with an emphasis on what developing countries can do.

And it recommends incorporating resource efficiency into the SDGs.

One option will be to establish a separate goal for sustainable resource management with associated targets and indicators. It could read as follows:

Goals	**Efficient use of natural resources in an equitable, secure and environmentally benign manner for human well-being in current and future generations.**
Targets	**Double resource productivity over the next 15-20 years**
Indica-tors	• **TMR/GDP (total material requirement/GDP)** • **Material Requirement/GDP and GHG/GDP** **(per sector: food, shelter, energy, mobility, etc.)**

We know, of course, that a lot of hesitations are in the room about any additional stand-alone indicator or goal.

Resource productivity, however, lends itself well to be integrated in other goals. But my presentation may persuade some of you that a stand-alone indicator could serve as a visible flag telling the public why SDG‘s are vital for us all.

But before going into substance, please allow me to say a few words about the International Resource Panel of UNEP.

The Panel offers a Science-Policy Interface for Sustainable Resource Management, notably resource *efficiency*.

Like the IPCC does for	Climate Change
IPBES for	Biodiversity Loss
Assessments under the Basel Convention for	Hazardous Substances
Montreal Protocol's Scientific Assessments for	Ozone Depletion
International Resource Panel for	Resource Efficiency

Six Working Groups so far

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Decoupling	decoupling environmental impacts and resource use from economic growth.
Cities	decoupling at the city-level and the intersection between urbanization trends and global material flows
Environmental Impacts of Products and Materials	enviromental impacts of products and materials and definition of priorities in use for impact minimization
Land and Soils	global land use and soil management
Global Metal Flows	global flows and reuse/recycling activities of metals
Water	water productivity and accounting

The International Resource Panel published Reports

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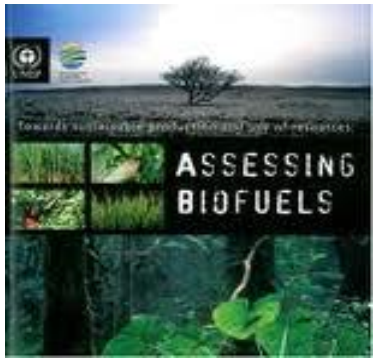

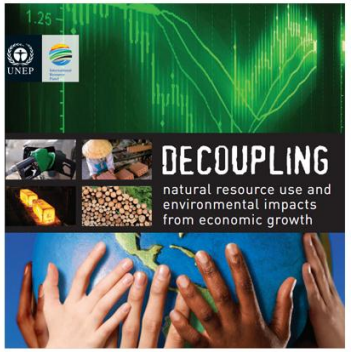

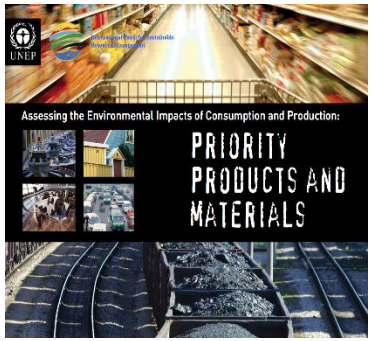

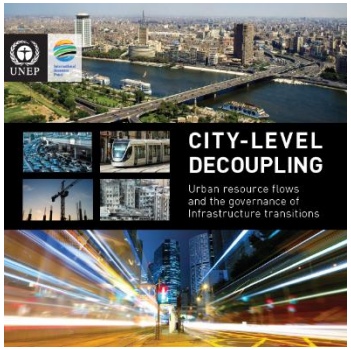

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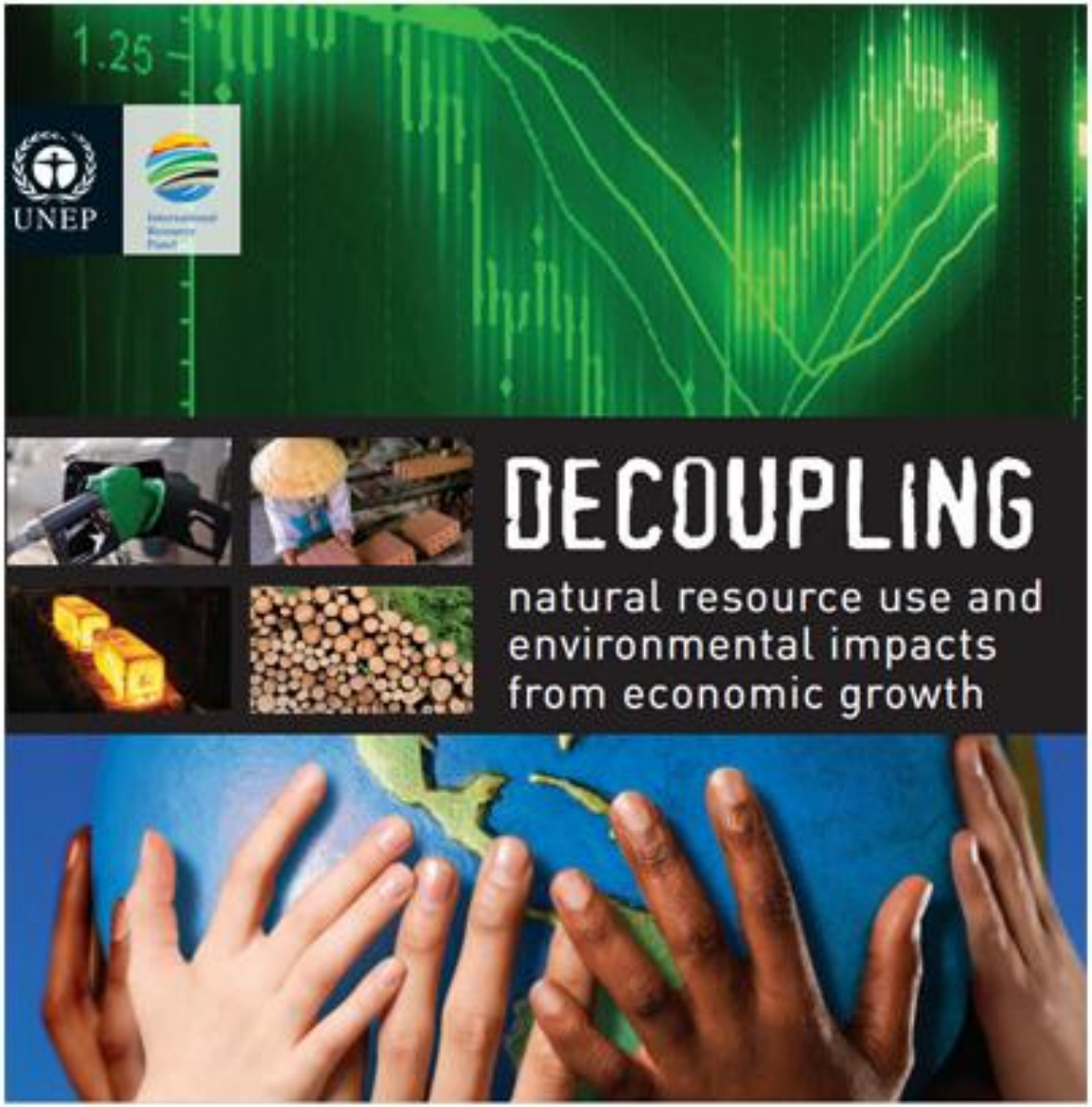
www. http://www.unep.org/resourcepanel/



Decoupling can be seen as IRP‘s signature

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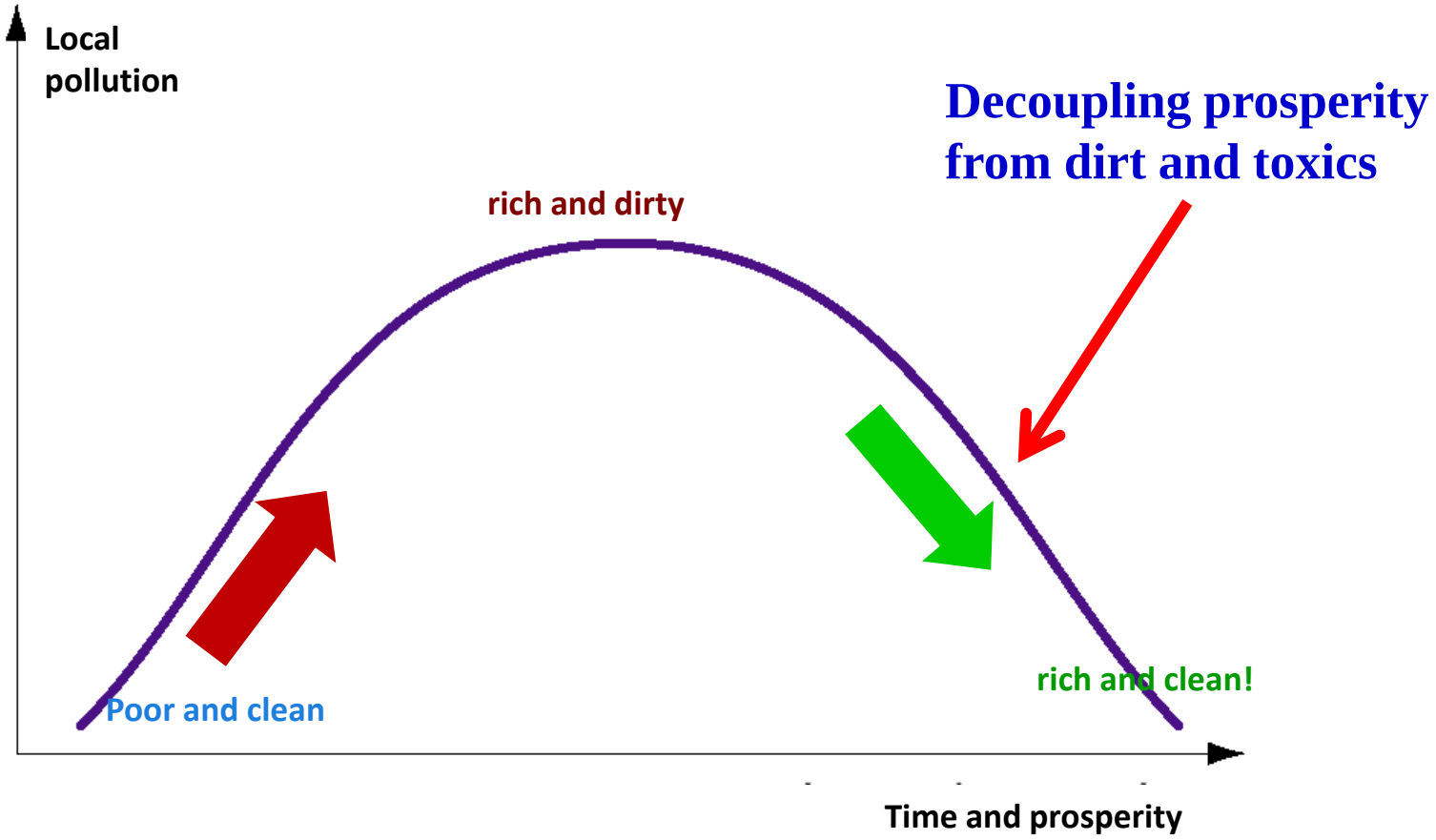
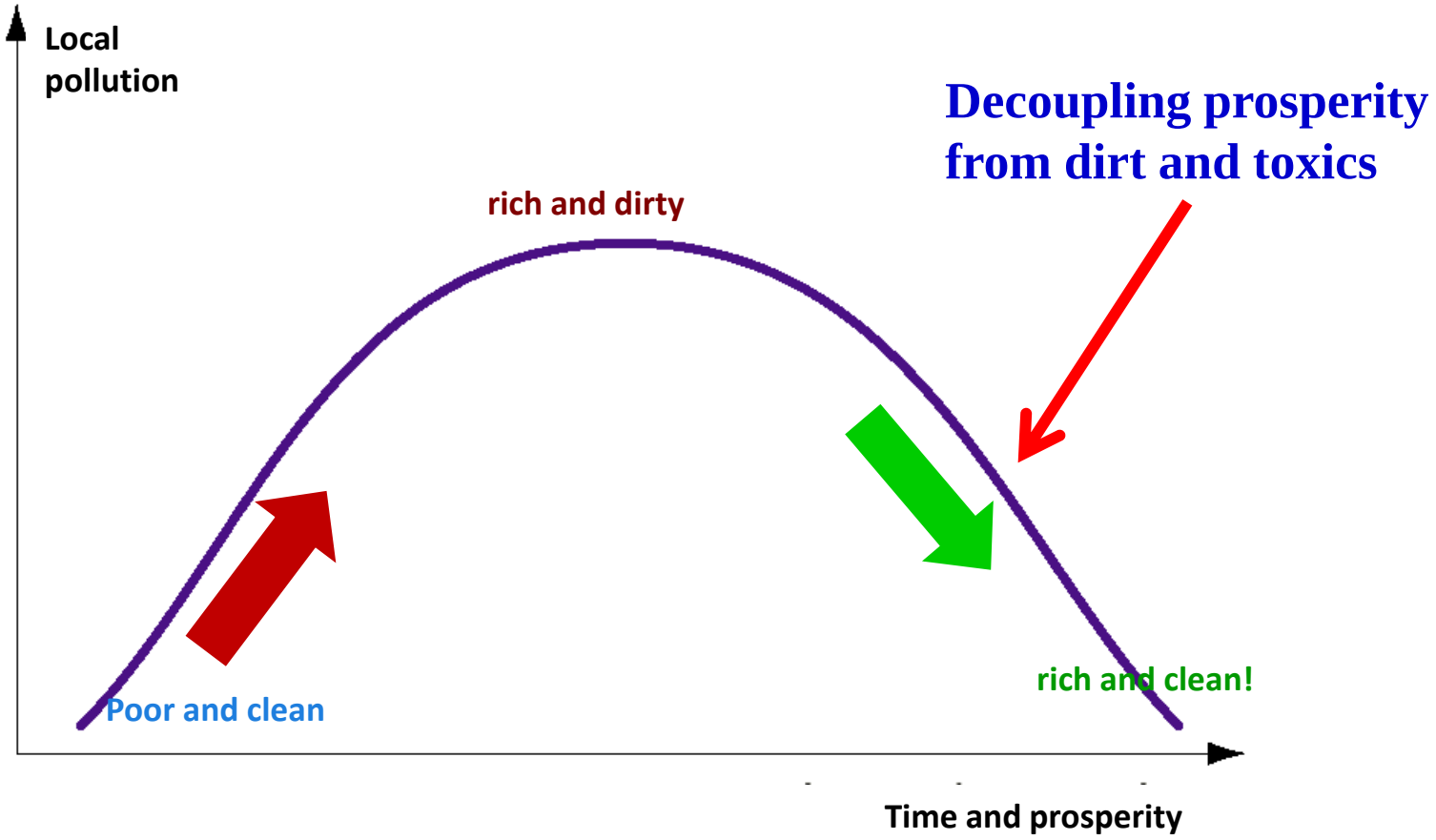
The paradigm for the decoupling idea: The Kuznets-curve of local pollution.

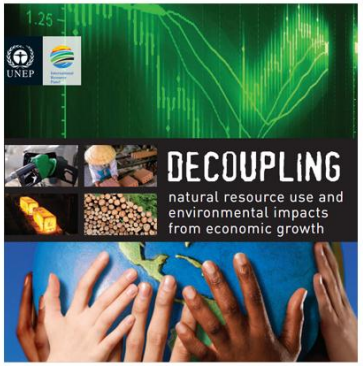


The paradigm for the decoupling idea: The Kuznets-curve of local pollution.

(in reality we are still far from „rich and clean“; I fully support goals such as zero harmful chemicals by 2030!)



Alas, what some countries have achieved for pollution is not valid for Domestic Material Consumption (DMC)



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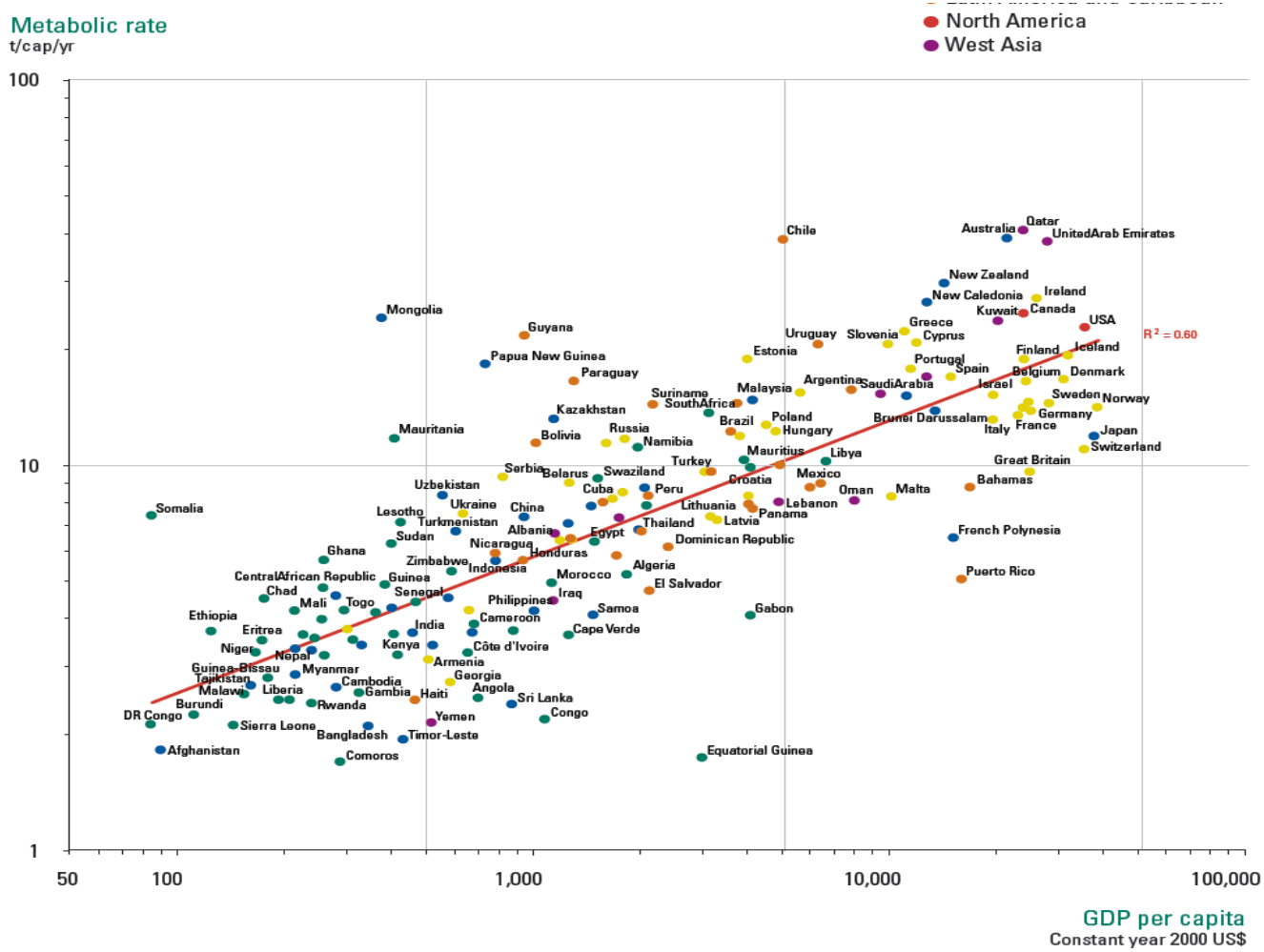


Why is „decoupling“ so important?

To answer this question, you may wish to look at what the G77 and China have said during the 6th OWG (9th-13th December, 2013).

Ambassador Peter Thomson, on behalf of the G77 and China outlined a „transformative global development agenda“ saying it must fulfill

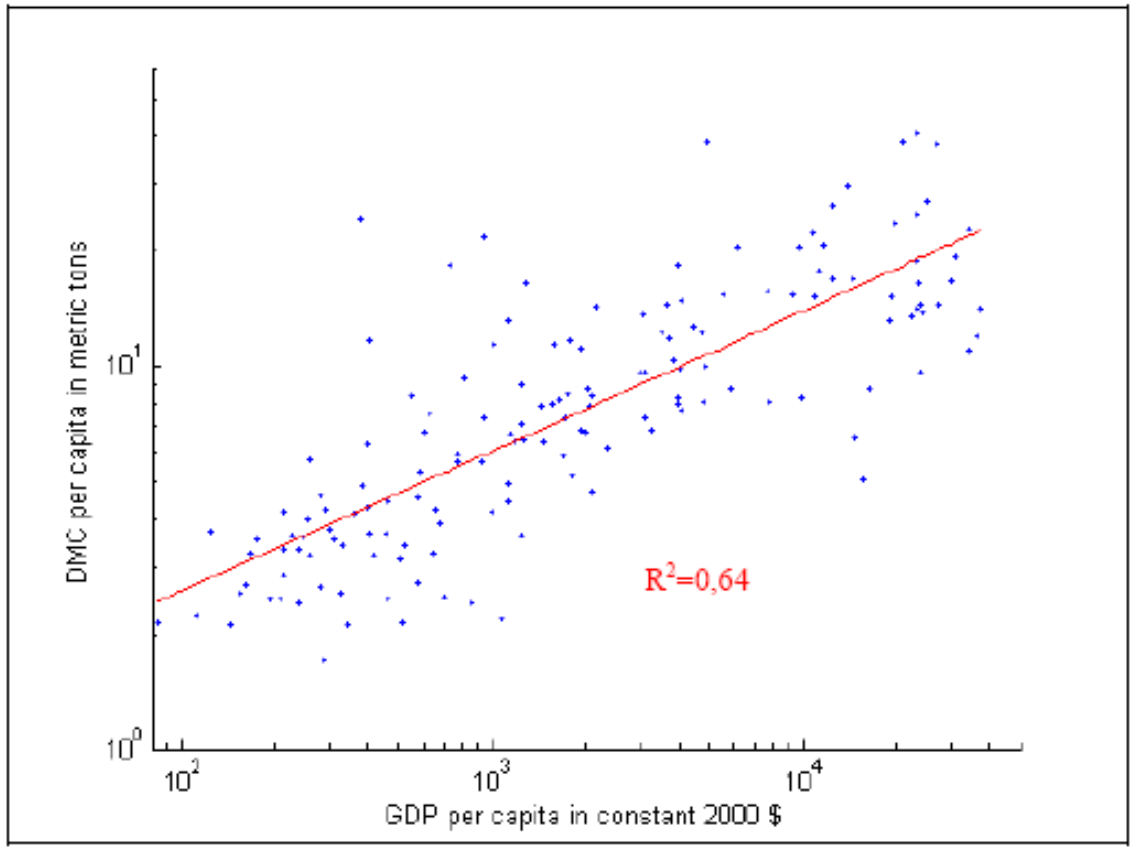
Five Key Policy Objectives:

- **Rapid and sustained economic growth;**
- **Industrialization;**
- **Full employment;**
- **Greater distributional equity;**
- **and Environmental sustainability.**

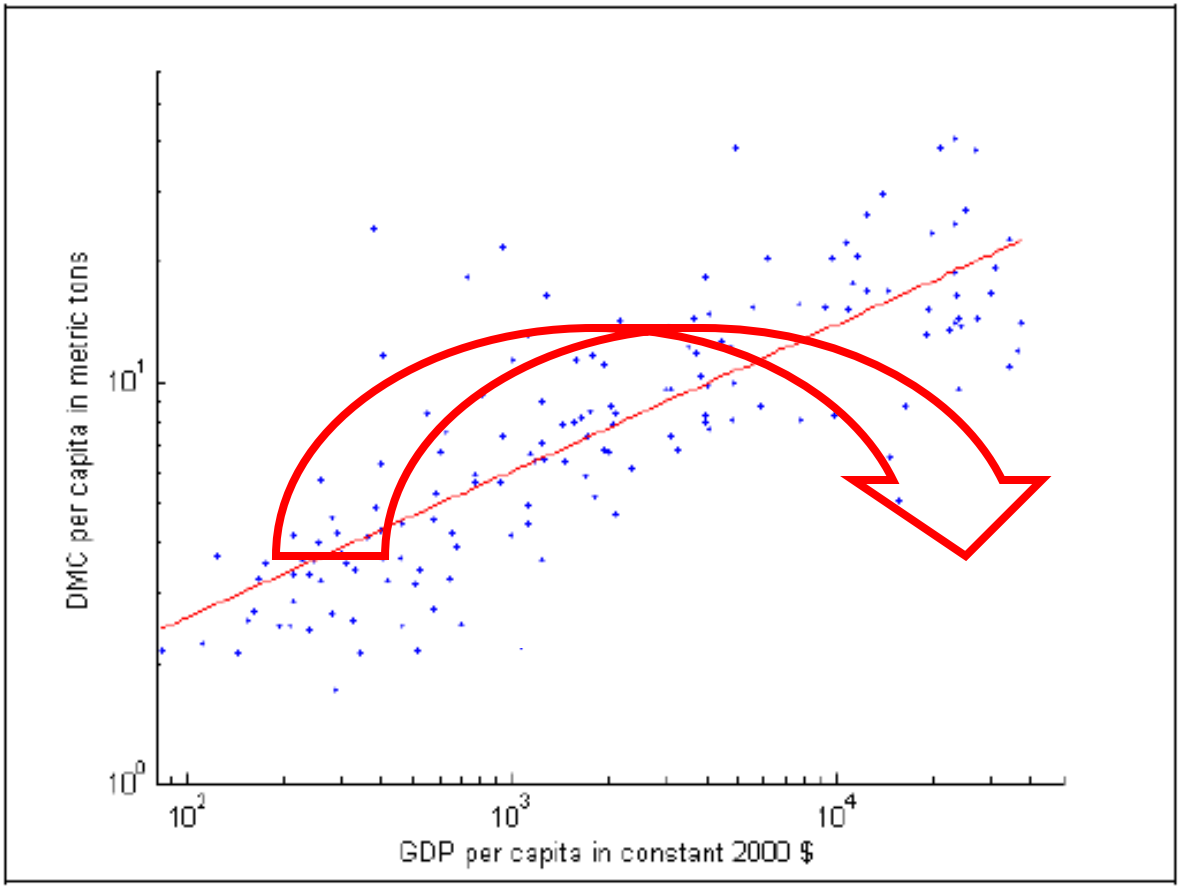
Wow! What a package! But is it consistent?

Leaving aside certain trade-offs often encountered between industrialization and full employment, we seem to see explosive trade-offs between the first four objectives and the last one. The package of the first four ones means a dramatic increase of energy and material consumption to absolutely unsustainable levels.

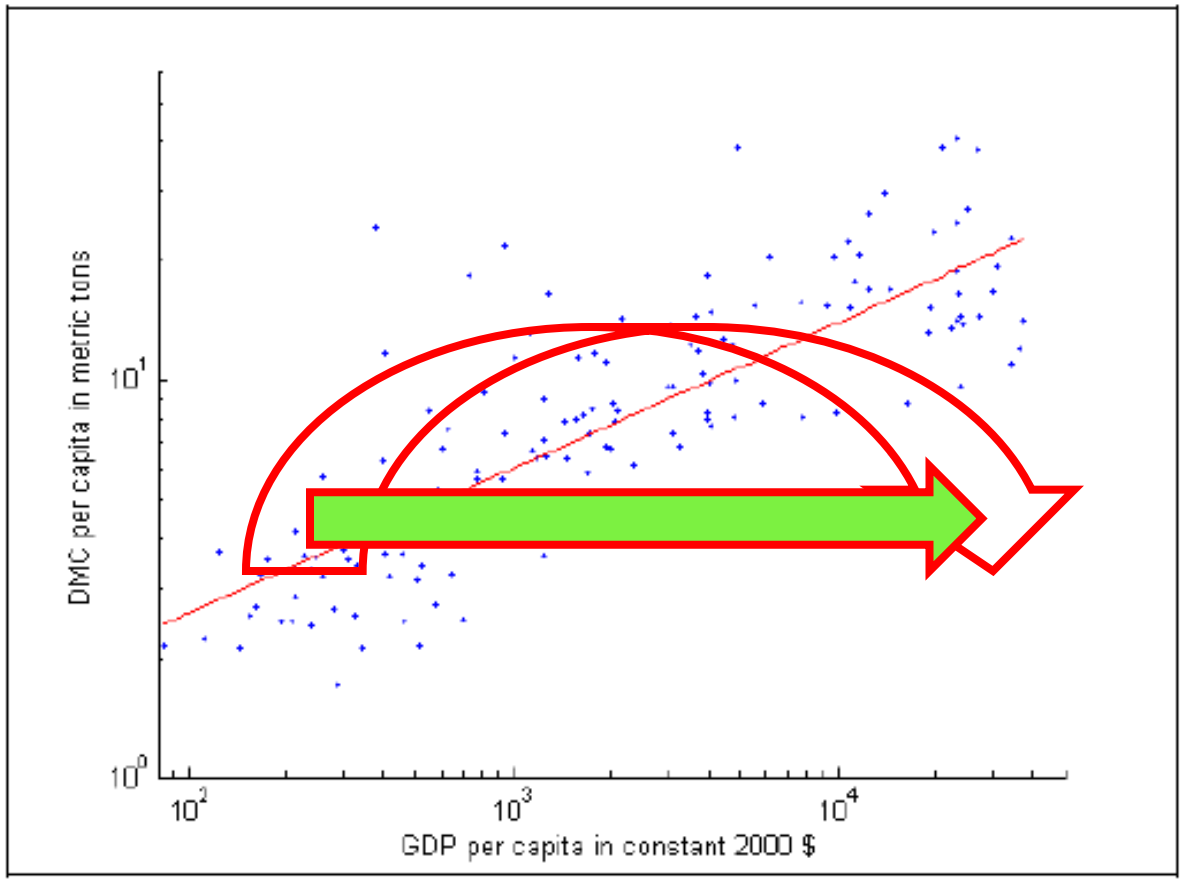
… because of that close correlation between GDP per capita and material (and energy) intensity of countries.



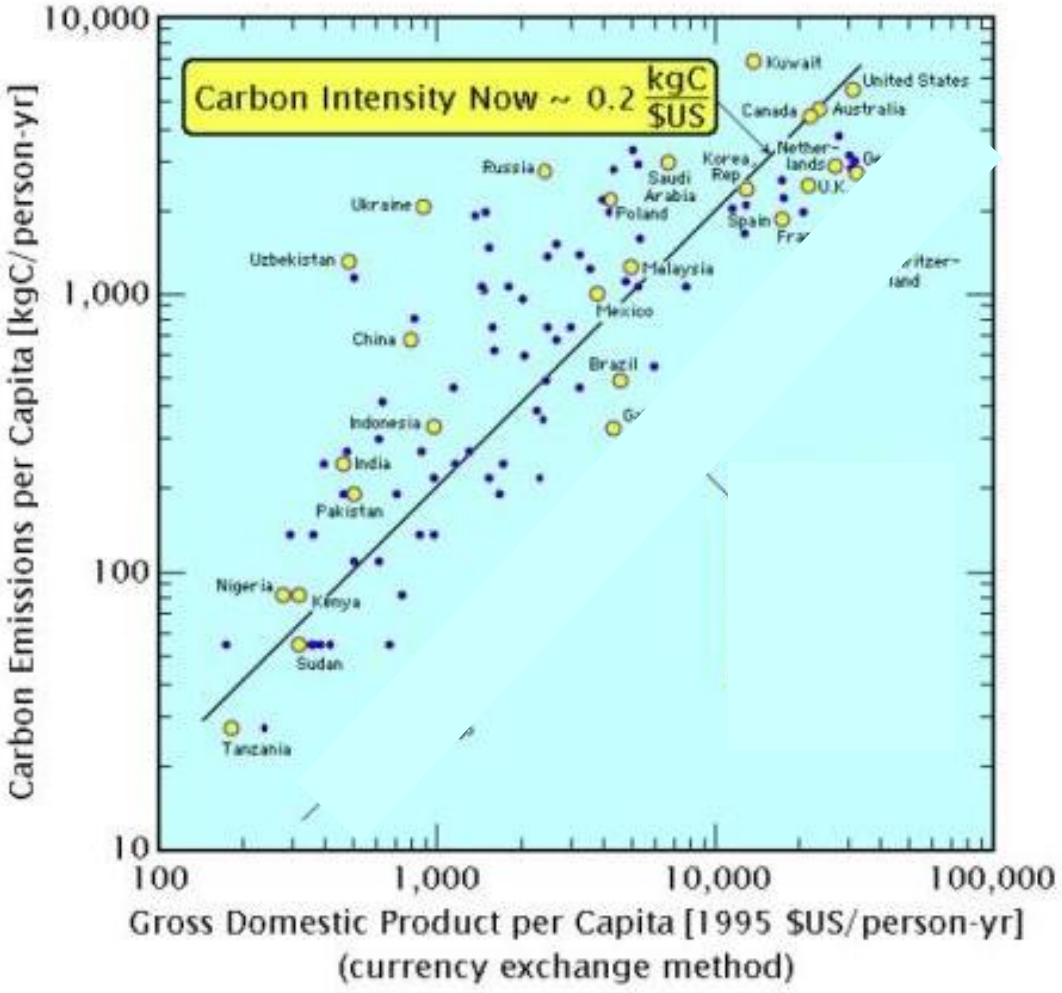
The new decoupling agenda means creating the Kuznets Curve for resources.



… and encourage developing countries tunneling through (avoiding costly clumsiness)

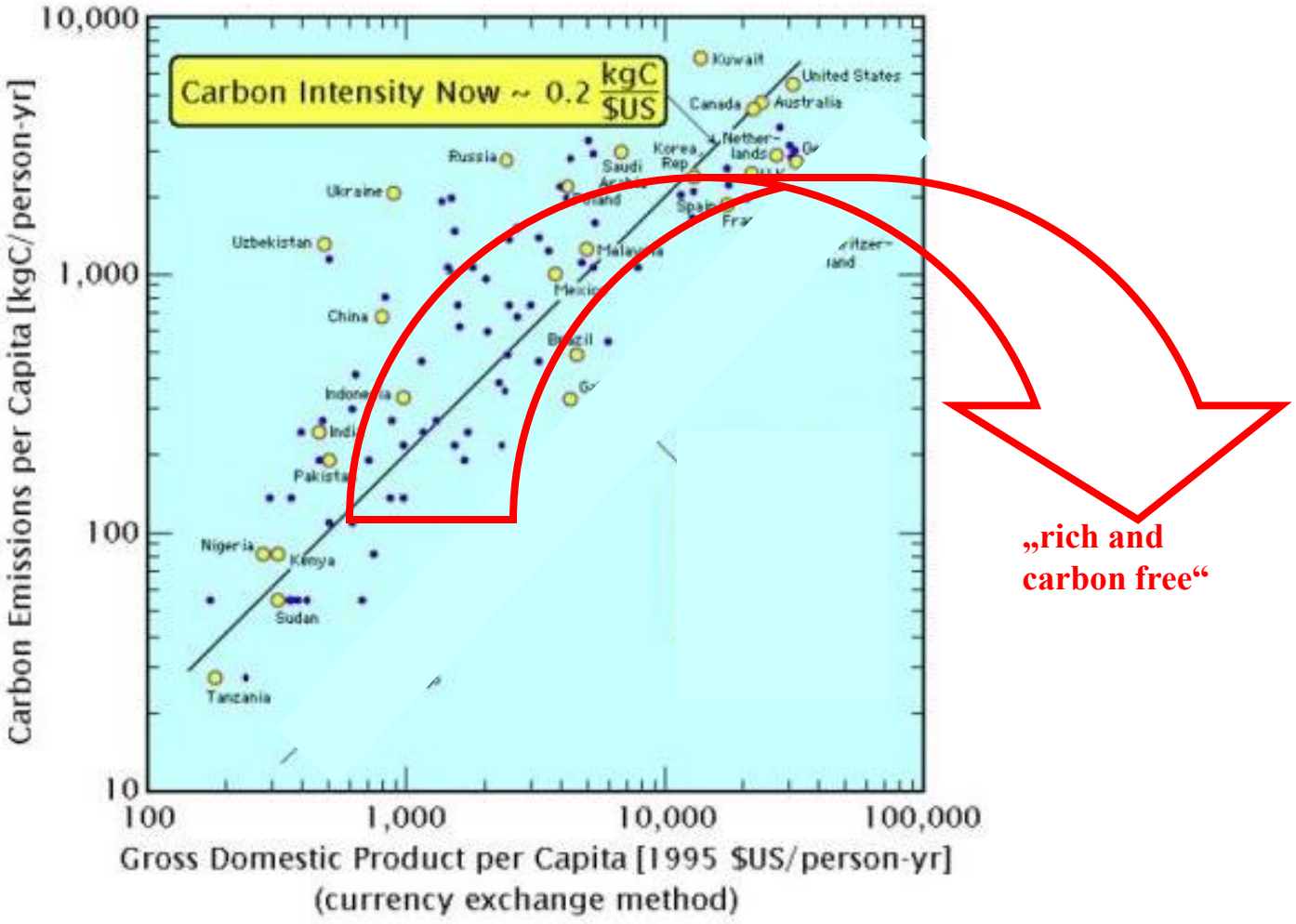


… very similar with CO_2 intensity.

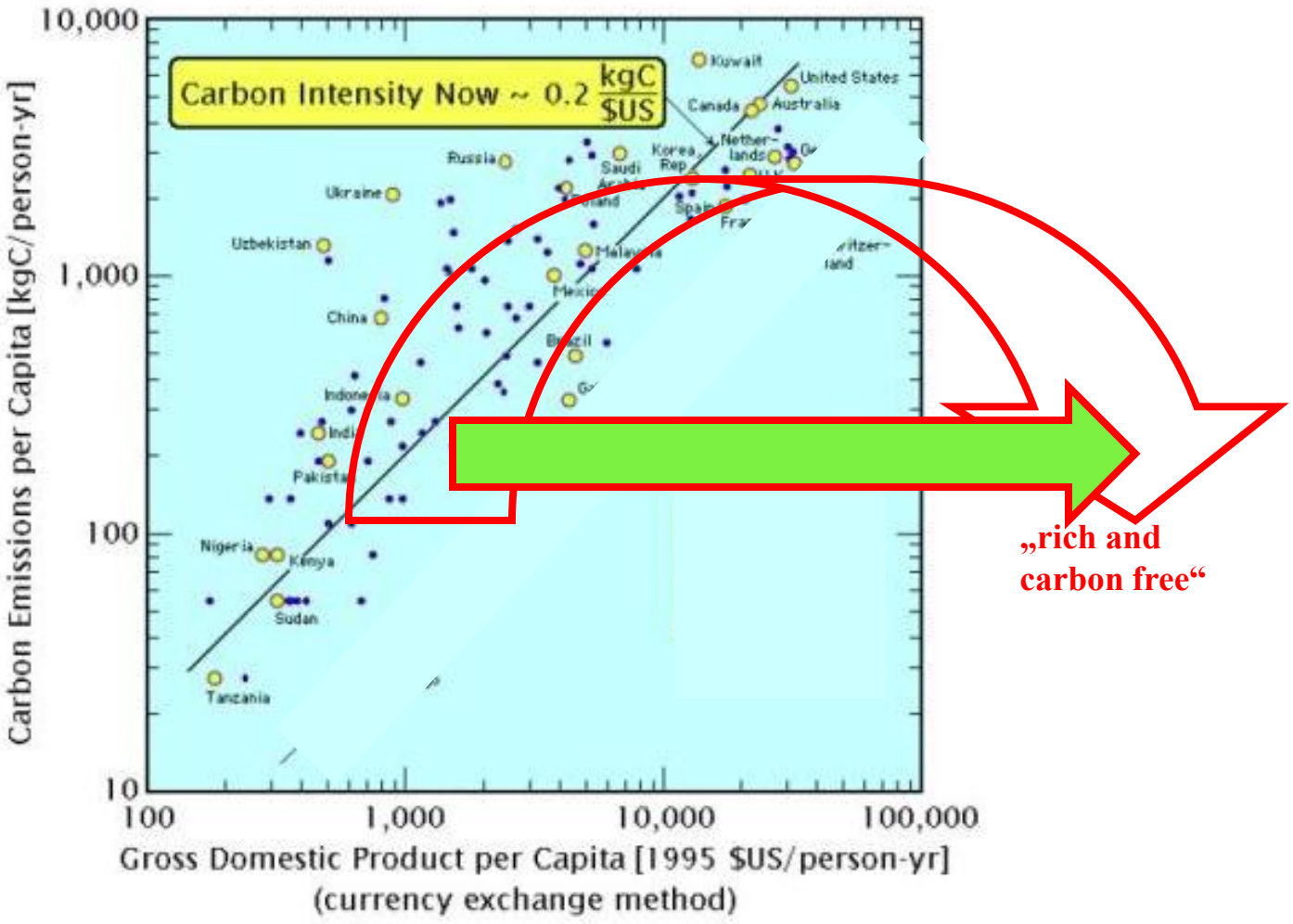


Source: Energy Information Administration, USA, 2006

… we need the Kuznets Curve of decarbonization.



… and the tunneling through .



On CO_2 and energy many believe that renewable sources of energy will solve all problems. I beg to differ.

If the richest 1 b people achieve the heroic goal of 20% renewables by 2020, only 1/35 of the global job will be achieved!

And I feel *greatly* concerned by the prospect of a 35 fold increase of renewable energies.

CBDR means: relative decoupling for the South, and absolute decoupling for the North; (and the North needs less growth, too!)

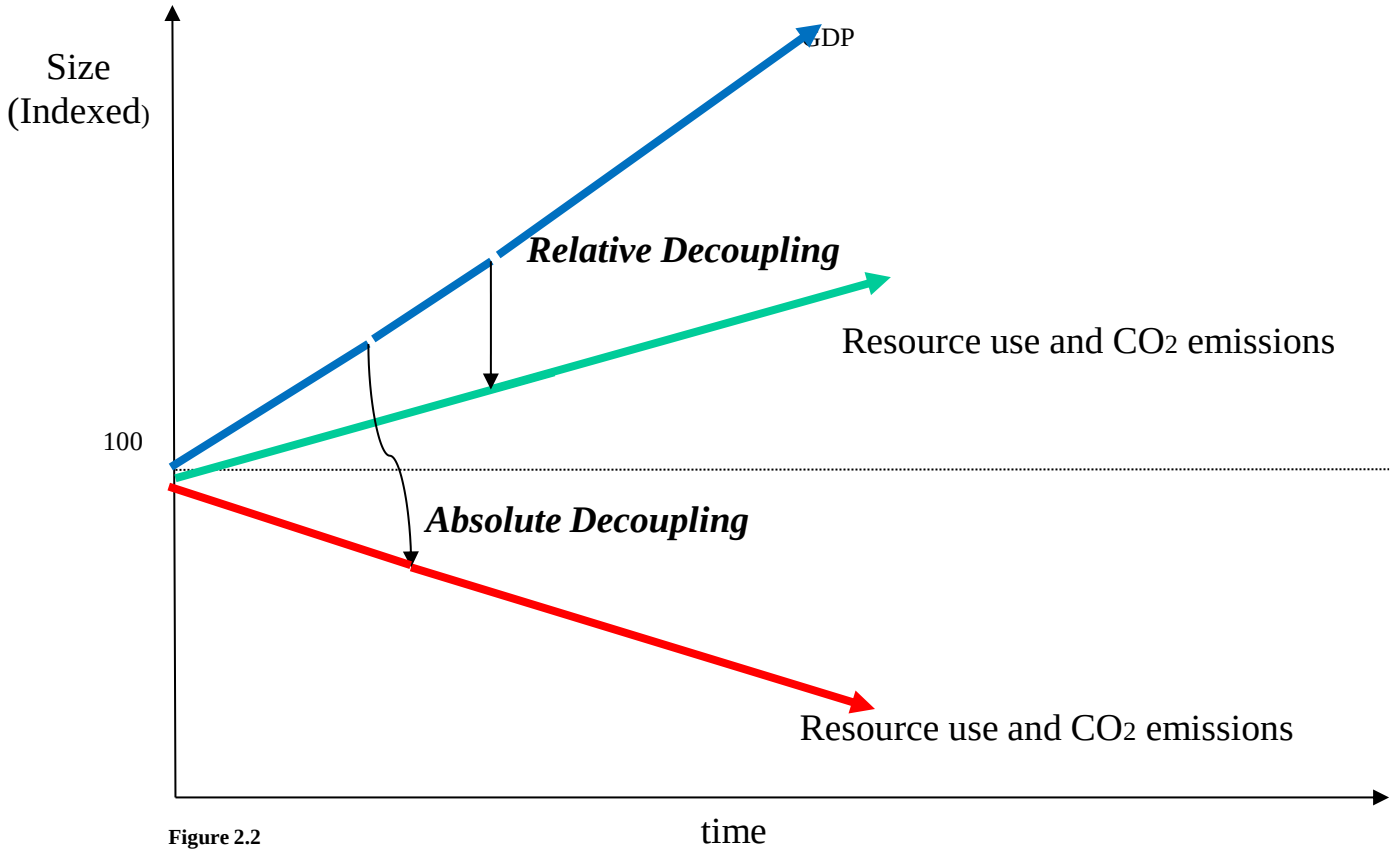


Figure 2.2

Well, I hope that some of you now feel inclined to seriously consider a stand-alone SDG target on decoupling or on the improvement of resource efficiency.

It does not conflict, I believe, with the emphasis on an SCP target.

On 6th December, 2013, Eurostat announced that they would from now on regularly measure and publish a resource efficiency scoreboard for the 28 member countries.

So statistics is not an obstacle to going for a resource efficiency indicator.

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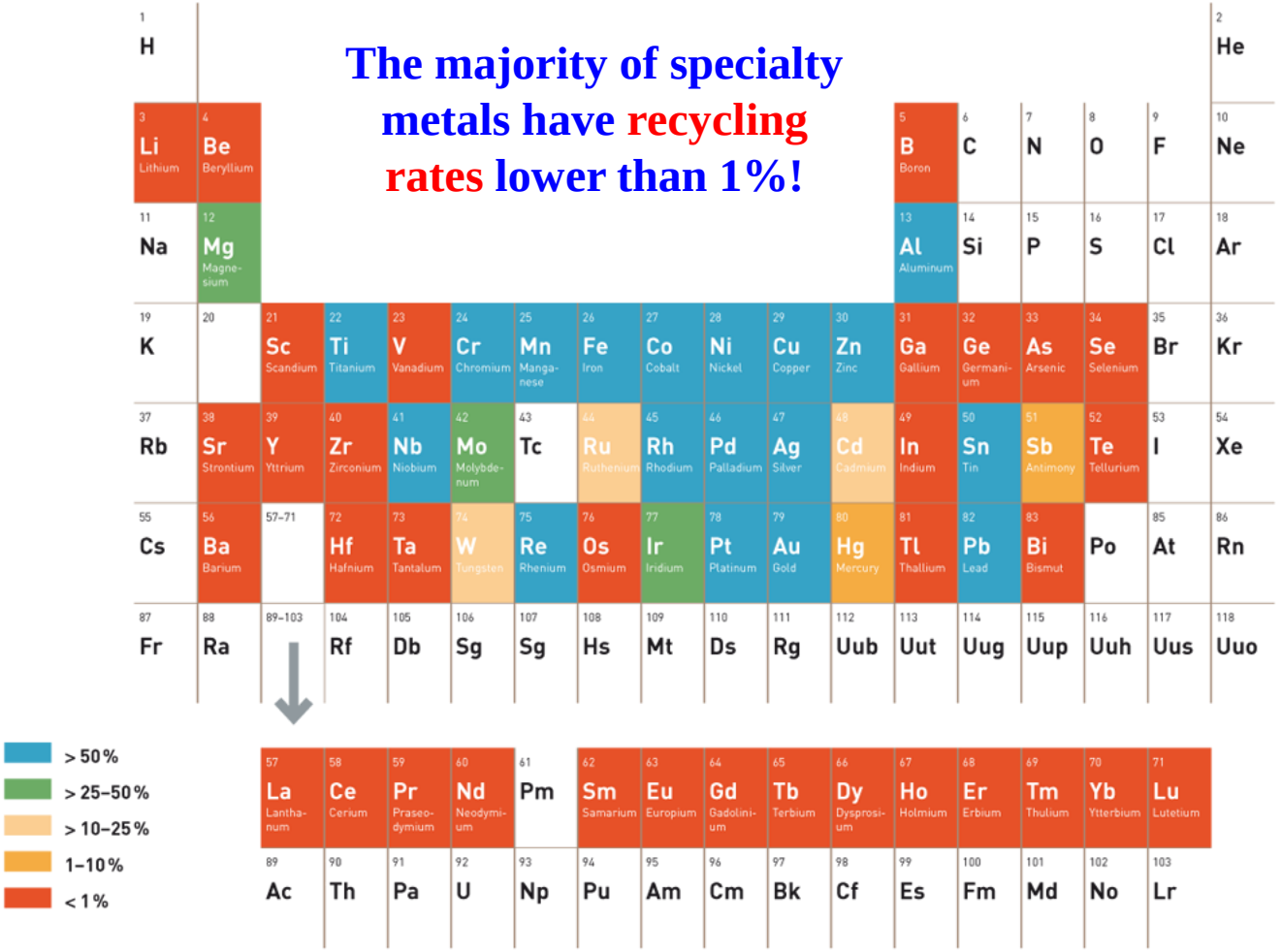
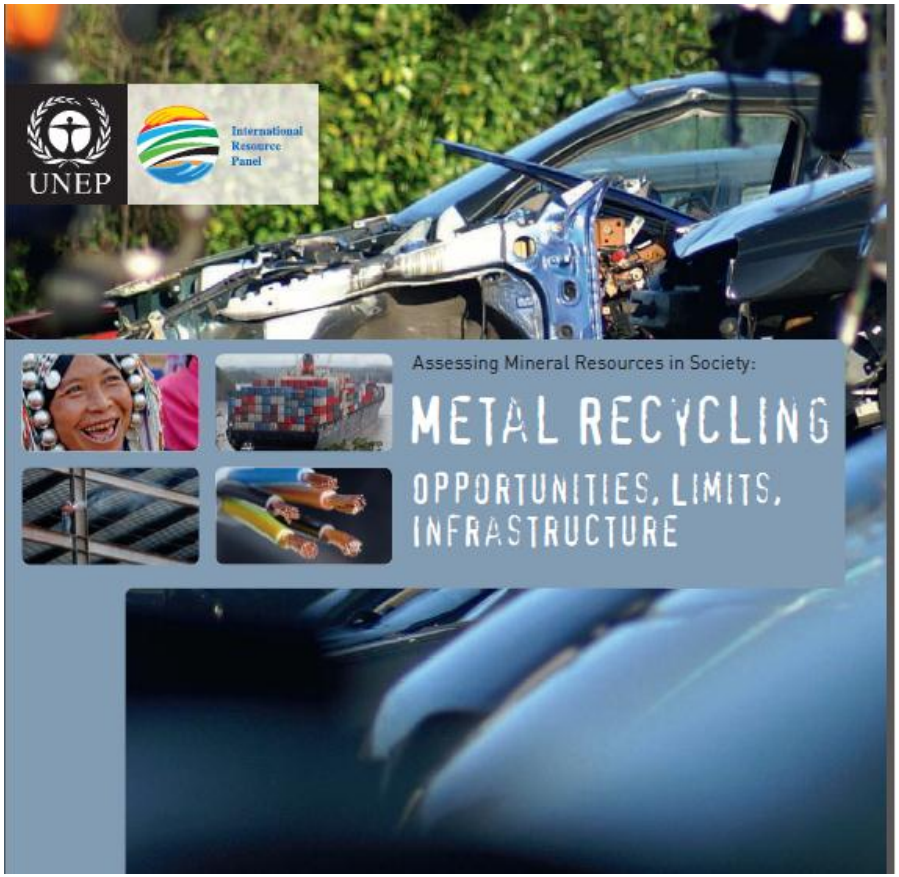
To show you that decoupling can be very practical, one case story, on metal recycling.

The majority of specialty metals have recycling rates lower than 1%!



A 2013 Report on Metal Recycling Opportunities, Limits, Infrastructure found that great opportunities exist. An exciting decoupling challenge for both South and North!



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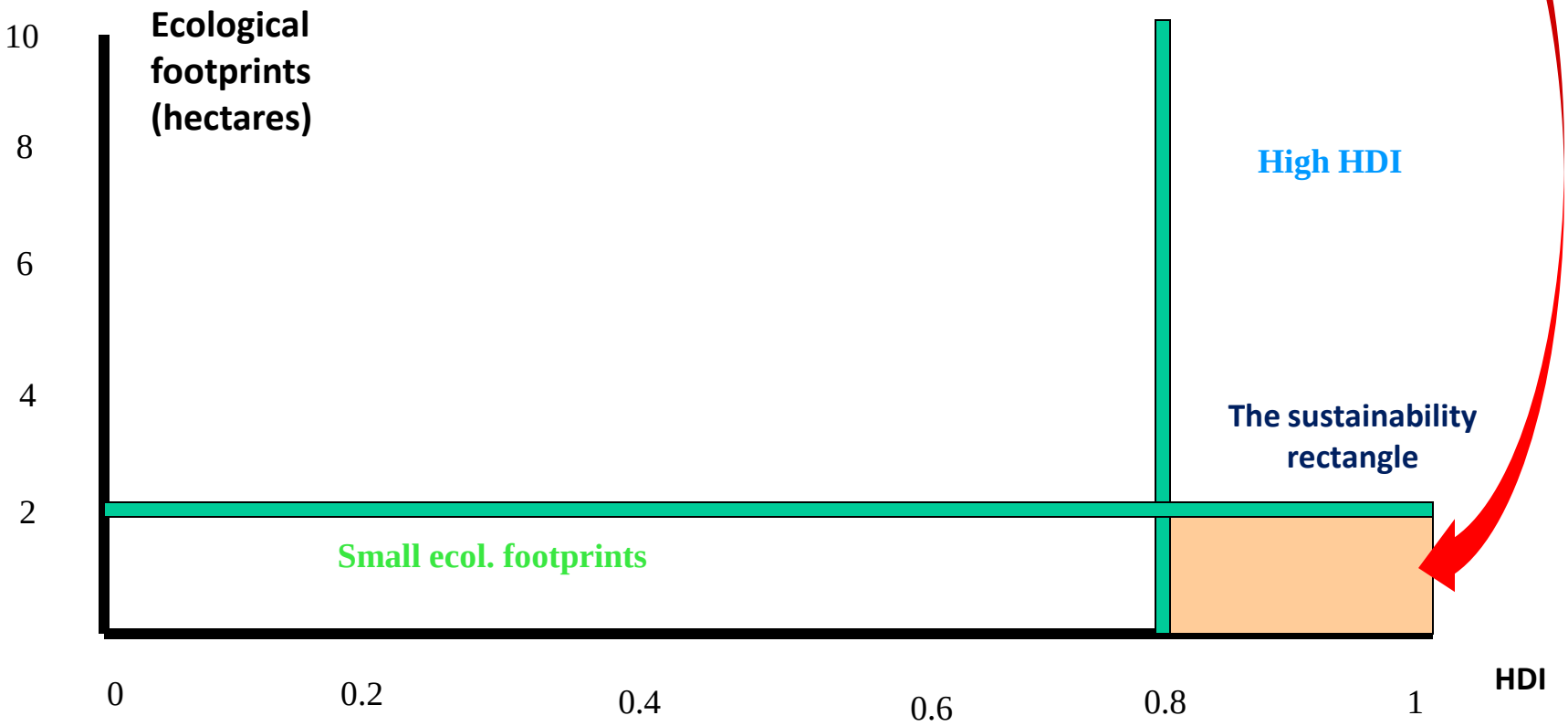
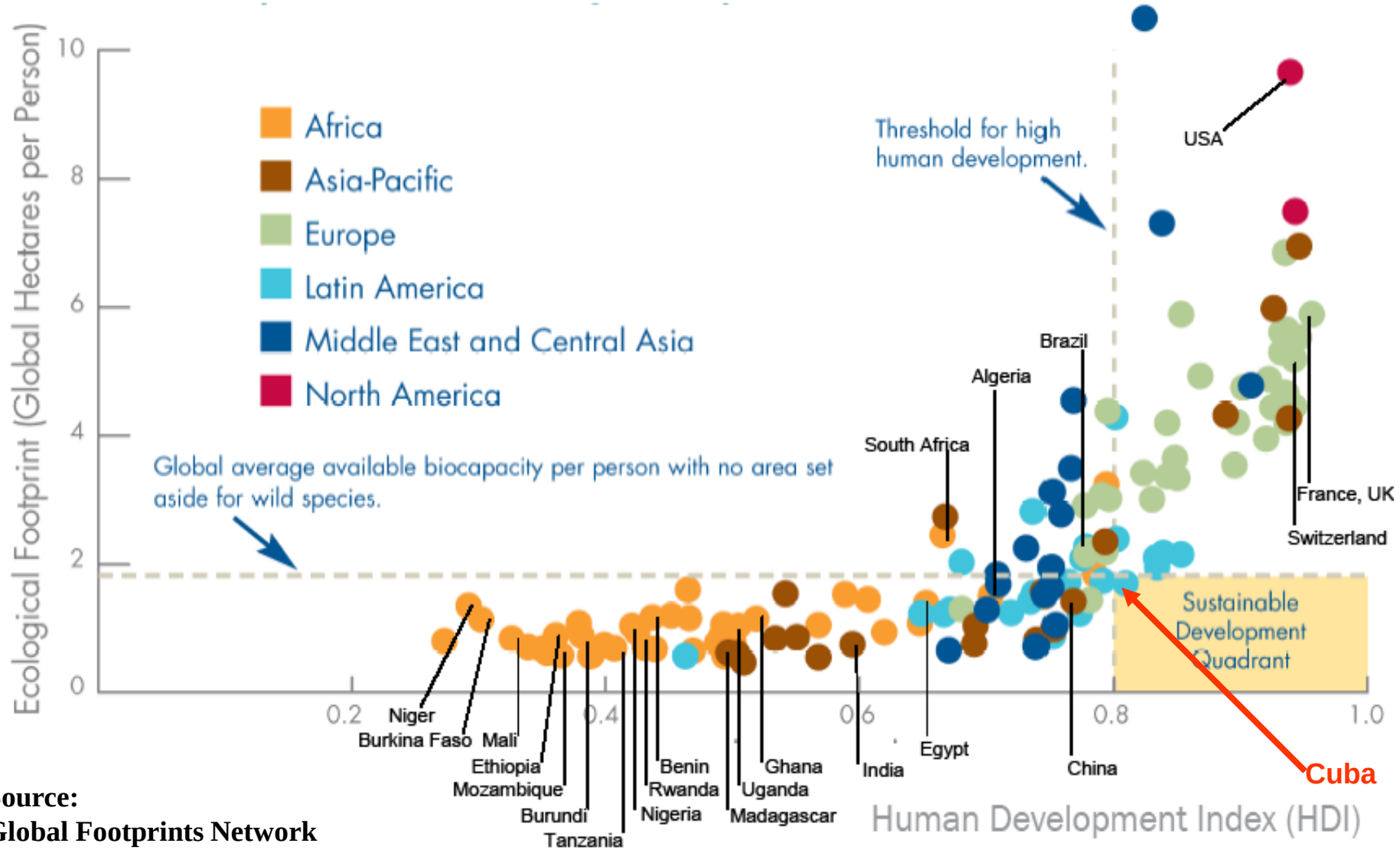
www.unep.fr/scp/rpanel

Let me offer you a slightly different narrative on Sustainable Development, as small ecological footprints and a high Human Development Index (HDI)

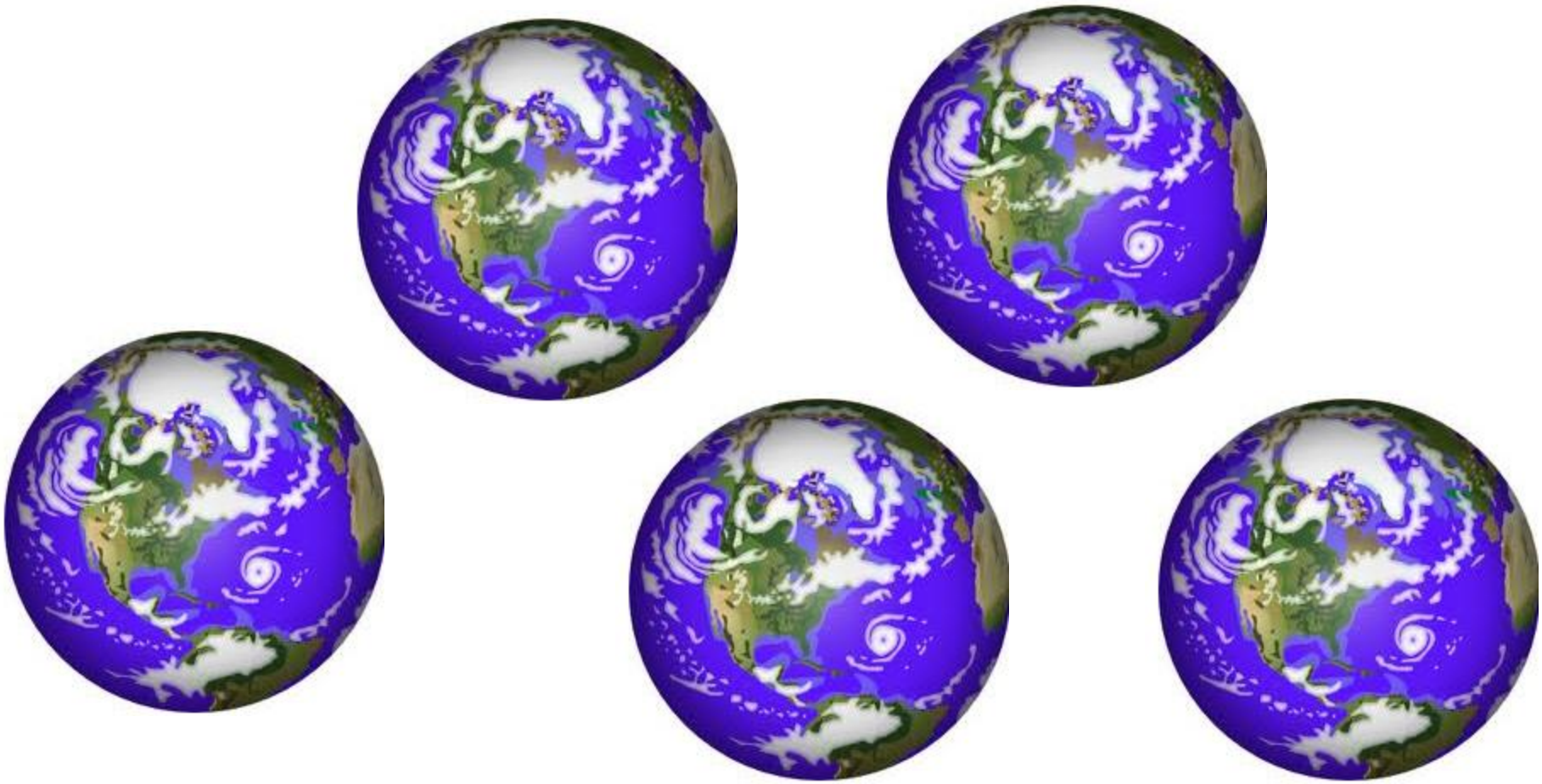


Alas, only one country currently populates the sustainability rectangle



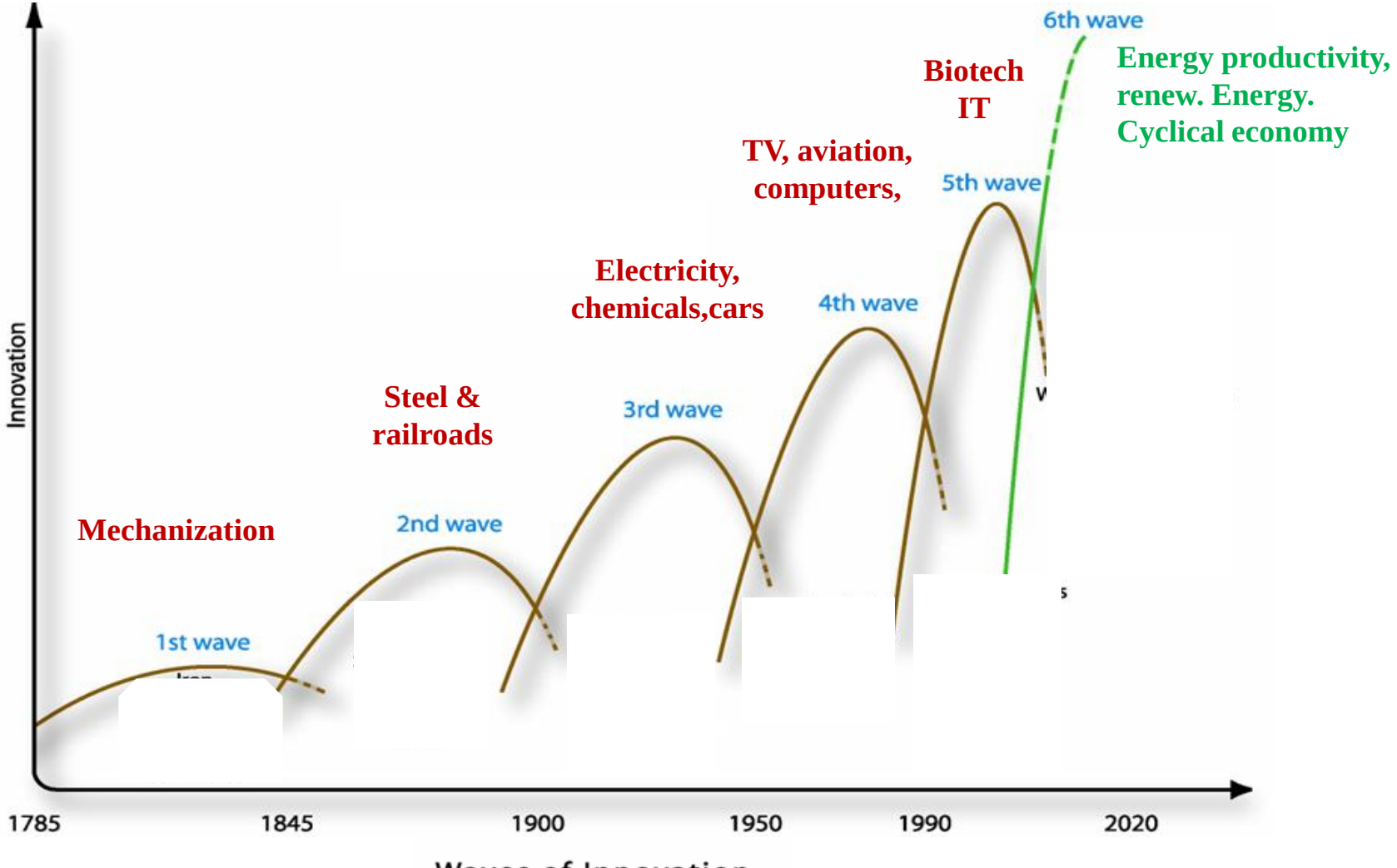
Source:
Global Footprints Network

If 7 b people had footprints of the rich, we would need 5 planets Earth

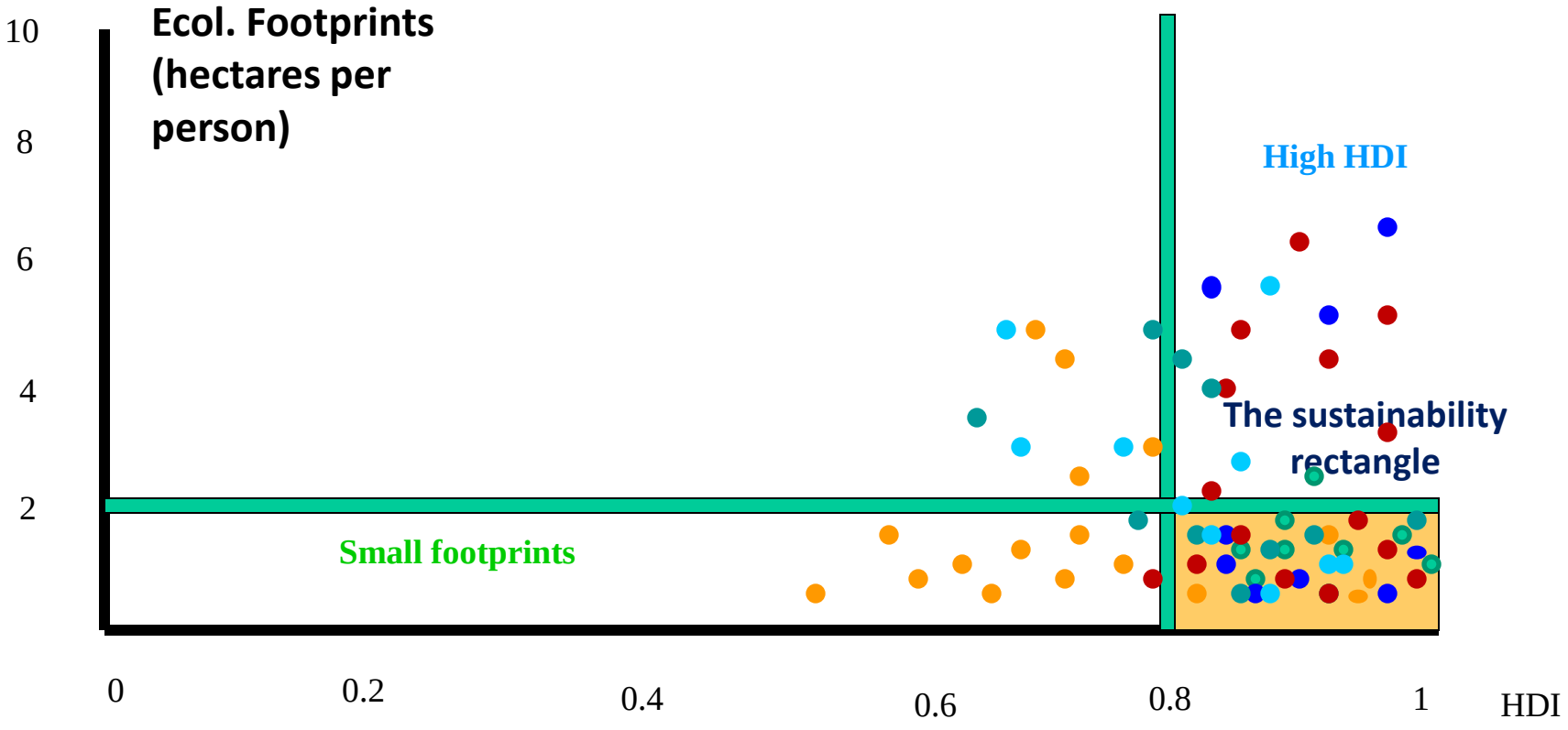


If we manage to have fivefold increase of resource productivity, one planet would do!

That's the ambition of creating a Green Kondratiev Cycle, after five brown Cycles.



A factor of five in the increase of resource productivity could pull or push most countries into sustainability!



That‘s an exciting perspective, both for developed and developing countries. And for the private sector!

In order to encourage you to think bold about this perspective, I am asking you a question from physics.

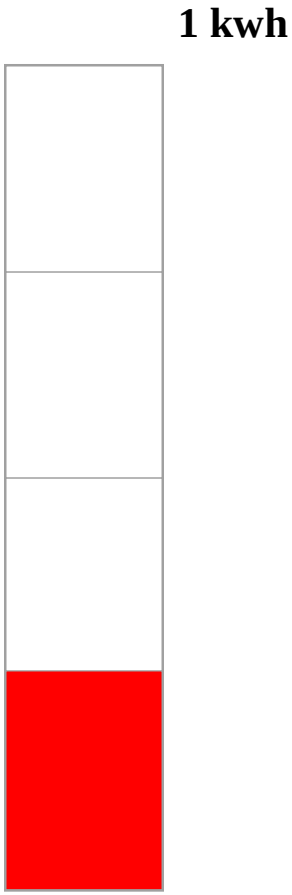
Imagine a bucket of water of 10 kg weight

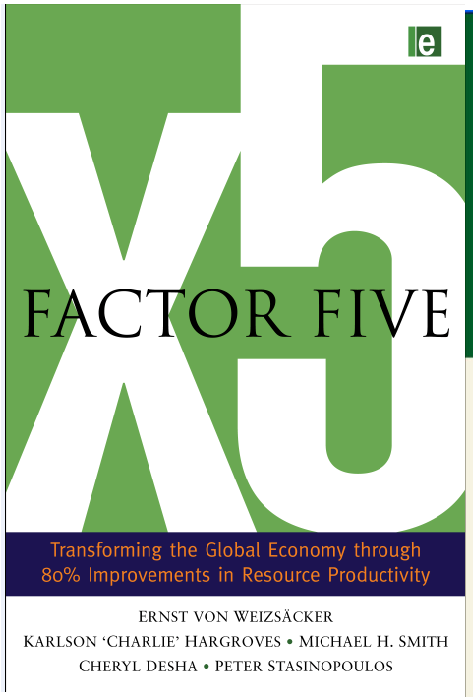
How many kilowatt-hours

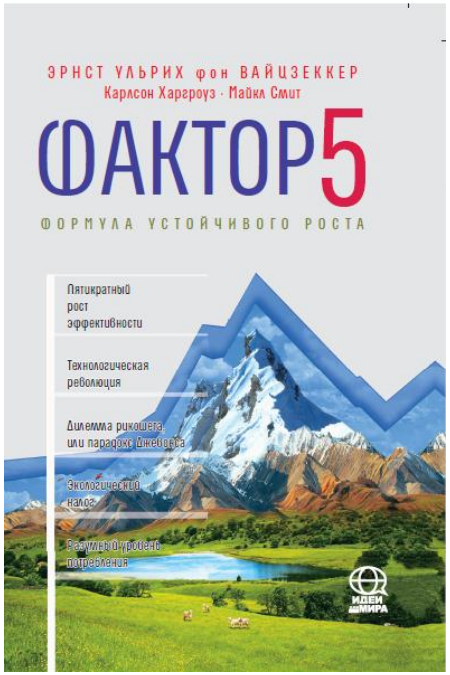
do you need to lift it from sea level to the top of Mount Everest?

The answer is stunning:
One quarter of a kilowatthour!

(knowing that one watt-second is one Joule or one Newton-meter; ¼ kwh is 900.000 watt-seconds)







December 2009 **March 2010** **October 2010** **November 2012**

meaning that a five-fold increase in resource productivity will just be the early beginning of a bigger story.
(I apologize for advertizing some of my own work.)

The book shows the availability of five-fold efficiency increases in four sectors:

1. **Buildings**
2. **Transport**
3. **Industry**
4. **Agriculture**

The book als touches policy questions. It comes up with a daring proposal:

(i) Raise resource prices yearly, in parallel with efficiency increases of the preceding year;
(ii) Offer „life line tariffs“ for the poor;
(iii) Offer revenue neutrality to resource intensive industries.

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In a world of basically scarce resources,

countries and companies pioneering efficiency will be the game winners. Developing countries can actually advance faster than the old industrialized countries, which tend to be locked into wasteful habits and infrastructures.

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To conclude:

Decoupling prosperity from resource and carbon intensity is an ecological necessity.

A five-fold increase of resource productivity is doable both in the North and the South.

Policies exist to accelerate the transition.