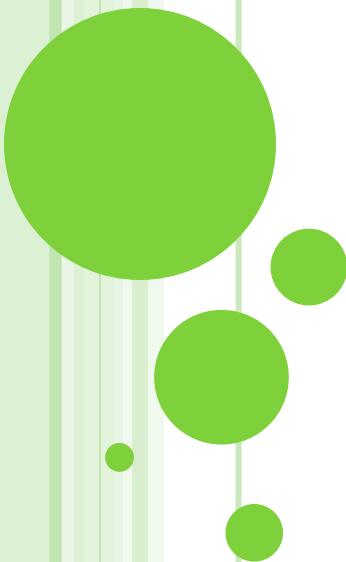


NATURAL RESOURCES – TO WHOM DO THEY BELONG?



Shaoyi Li

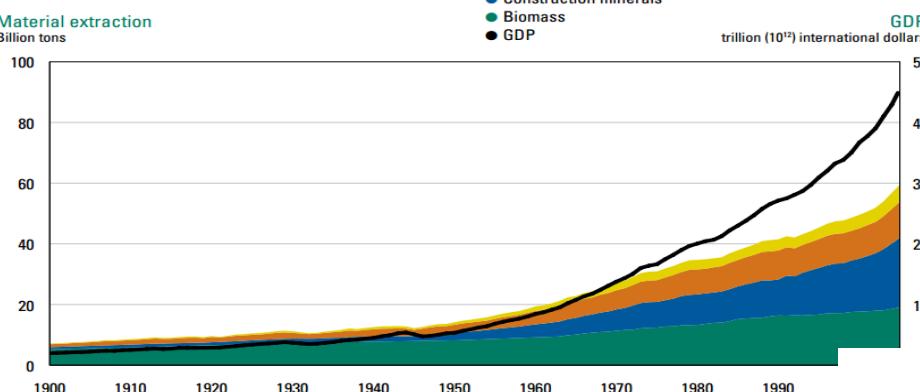
**Head of the International Resource Panel
Secretariat, United Nations Environment
Programme**

NATURAL RESOURCES IS ESSENTIAL HUMAN SOCIETY

Increase in resource use by a factor of 8 has fueled economic growth by a factor 23

Global material extraction in billion tons, 1900–2005

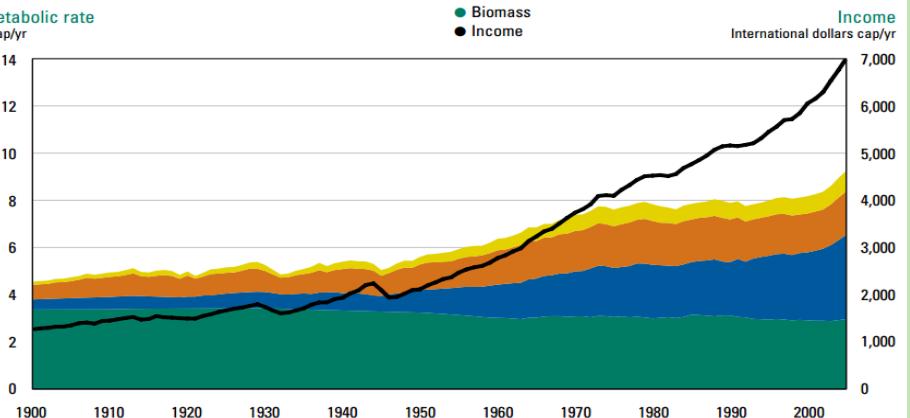
Material extraction
Billion tons



Global metabolic rates 1900–2005, and income

And the metabolic rate (resources being used per capita) has been doubled to 8 tons

Metabolic rate
t/cap/yr



NATURAL RESOURCES IS INTEGRAL PART OF ECOSYSTEM



A EGOTISTIC SOCIETY AND DESTRUCTIVE EXTRACTION

- Mackay River, Boreal Forest and Tar Sands Mine



Boreal Forests and wetlands surrounding the Tar Sands are among the most carbon rich terrestrial ecosystem on Earth, with about as much carbon as tropical rainforests. Referred to by the Tar Sands industry as "overburden," these forests are scraped off and the wetlands dredged, to be replaced by tar mines like the one above.

From: Canada's Tar Sands and the True Cost of Oil. Photography by Garth Lenz.

THE TAR SANDS MINE AT NIGHT



Photographer: Garth Lenz

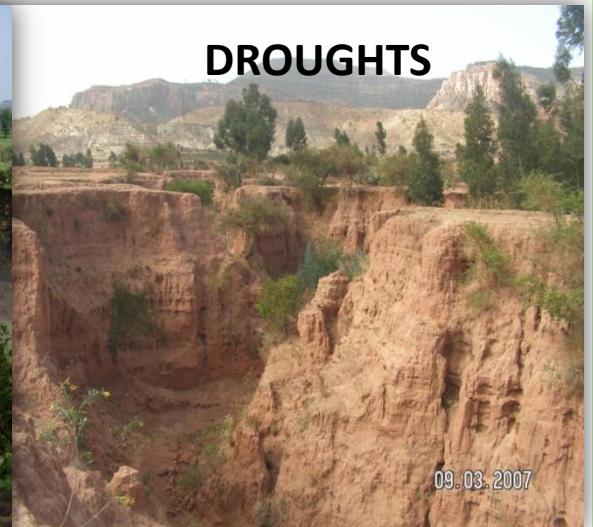
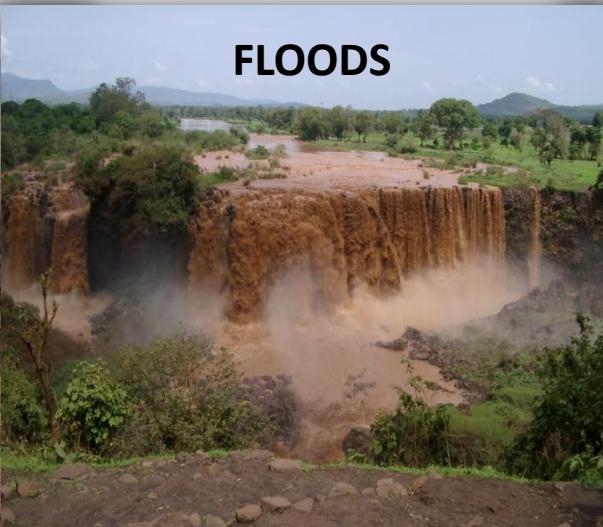
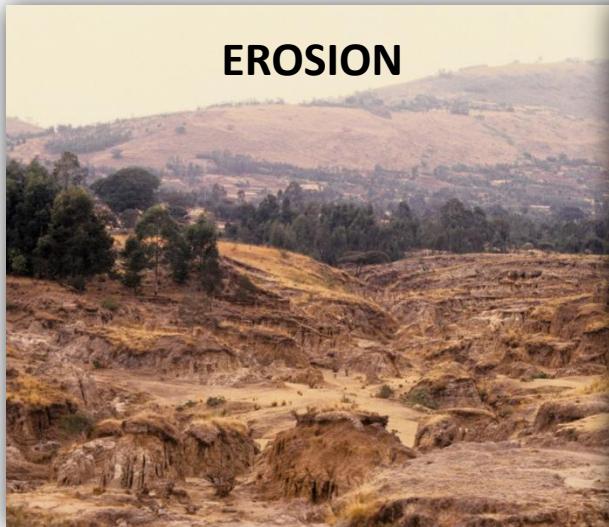
Twenty-four hours a day, the Tar Sands eats into the most carbon rich forest ecosystem on Earth. The vast mines, tailings ponds, fire- and pollution-belching refineries resemble Tolkien's middle-earth Mordor. *From: Canada's Tar Sands and the True Cost of Oil. Photography by Garth Lenz.*

POLLUTION AND ECOLOGICAL DISASTER

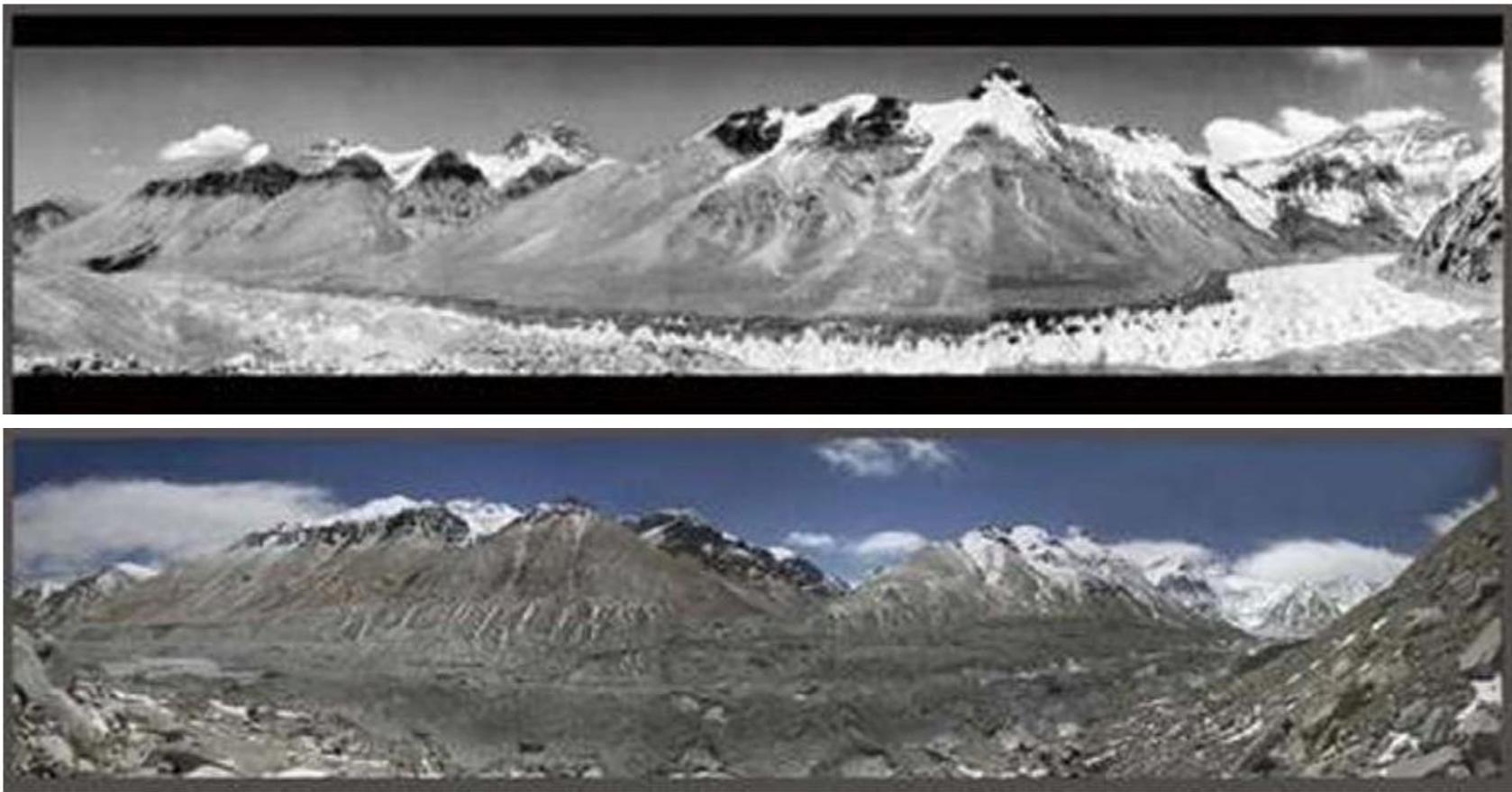
Industrialization and Urbanization has been unescapable from pollution



Ecosystems are severely damaged



Himalayan (Rongbuk) Glacier Disappearing



Rongbuk, the largest glacier on Mount Everest's northern slopes, in 1968 (top) and 2007. Glaciers are receding rapidly world-wide, including the Rockies, Andes, Alps, Himalayas. Glaciers provide freshwater to rivers throughout the dry season and reduce spring flooding.

WORLD FACES 40% FRESH WATER DEFICIT BY 2030

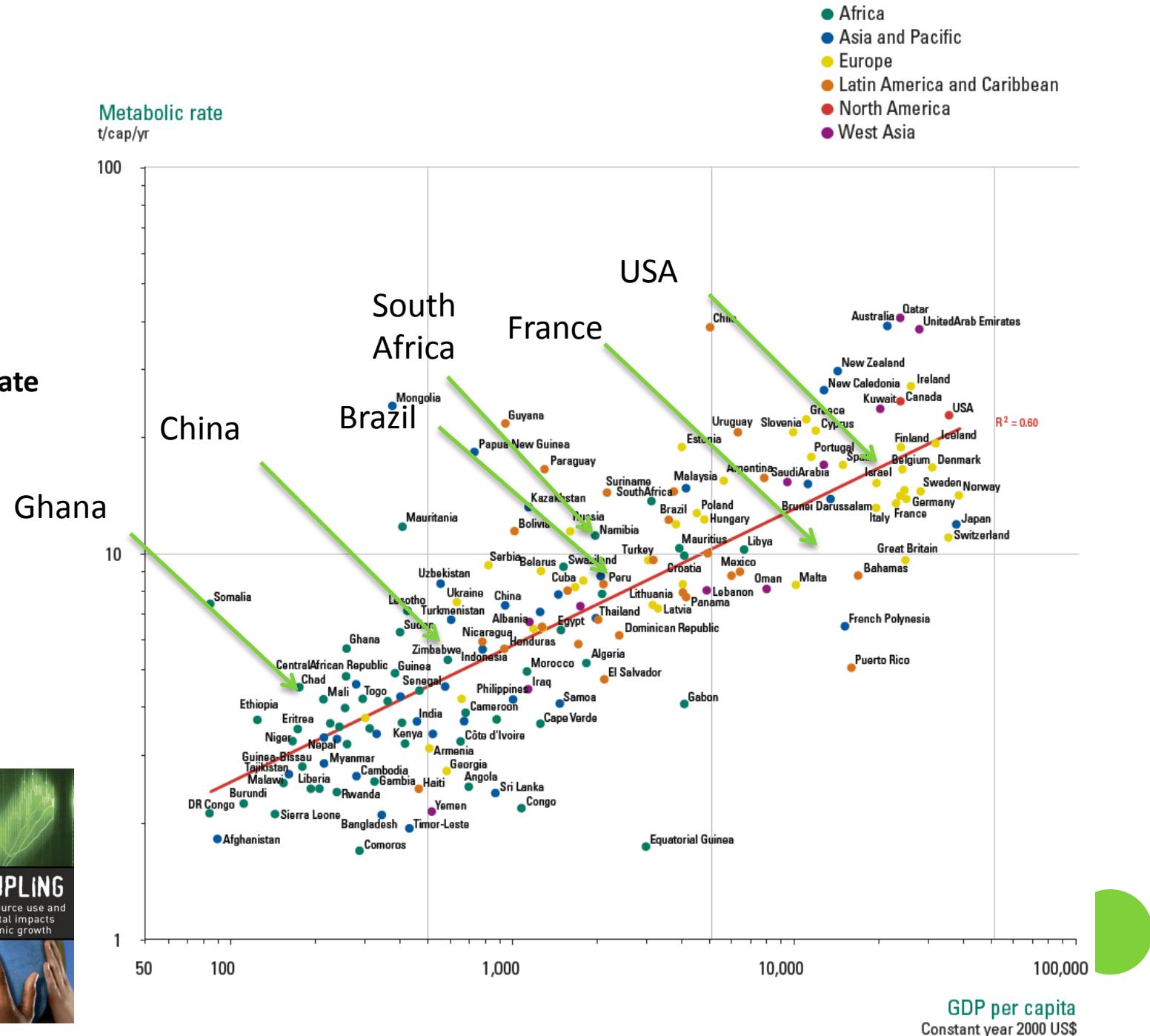


A STARK CONTRAST: 30% FOOD WASTE COEXISTING WITH 80 MILLION PEOPLE OF MALNUTRITION

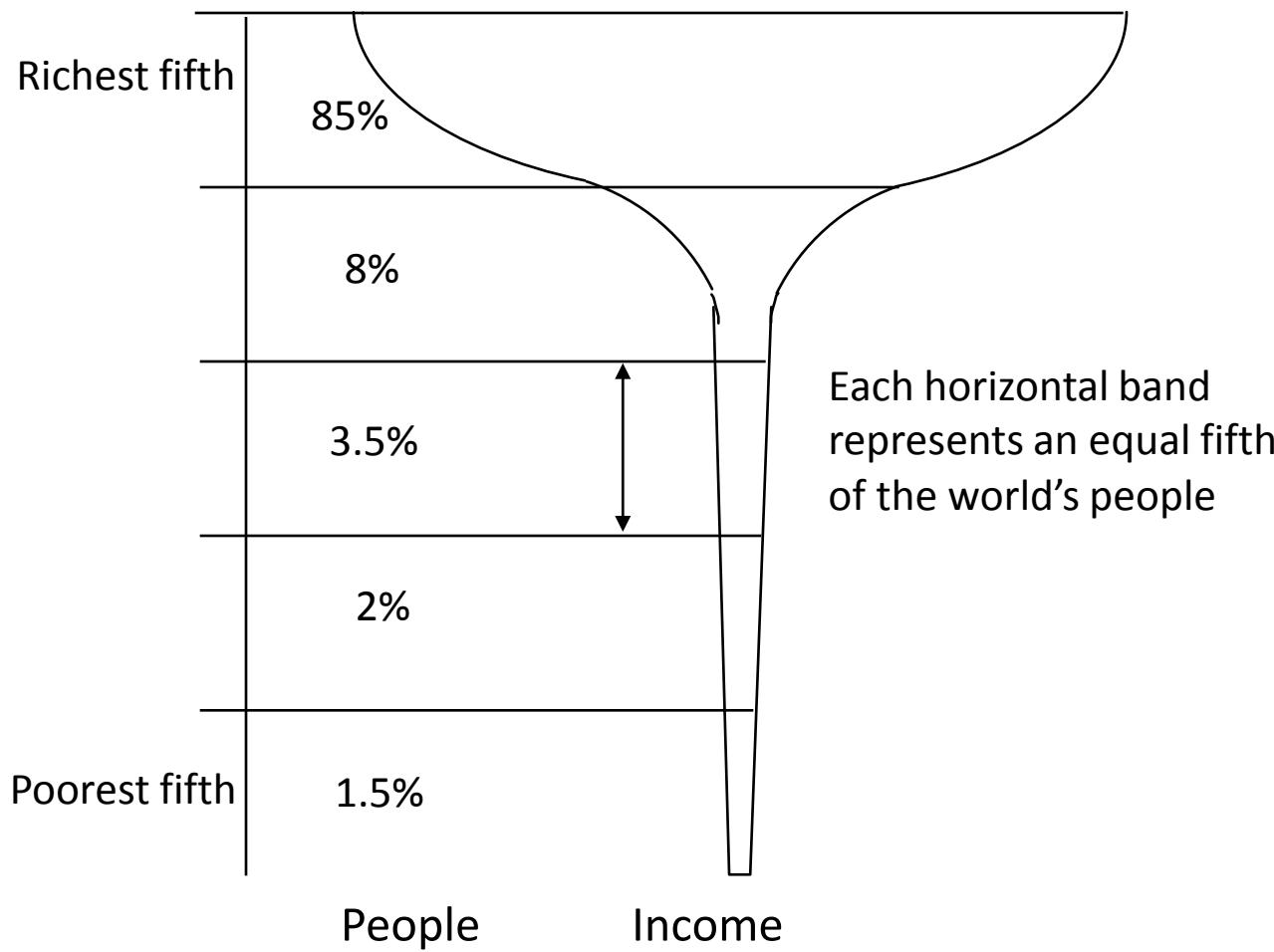




Metabolic rate ton/capita

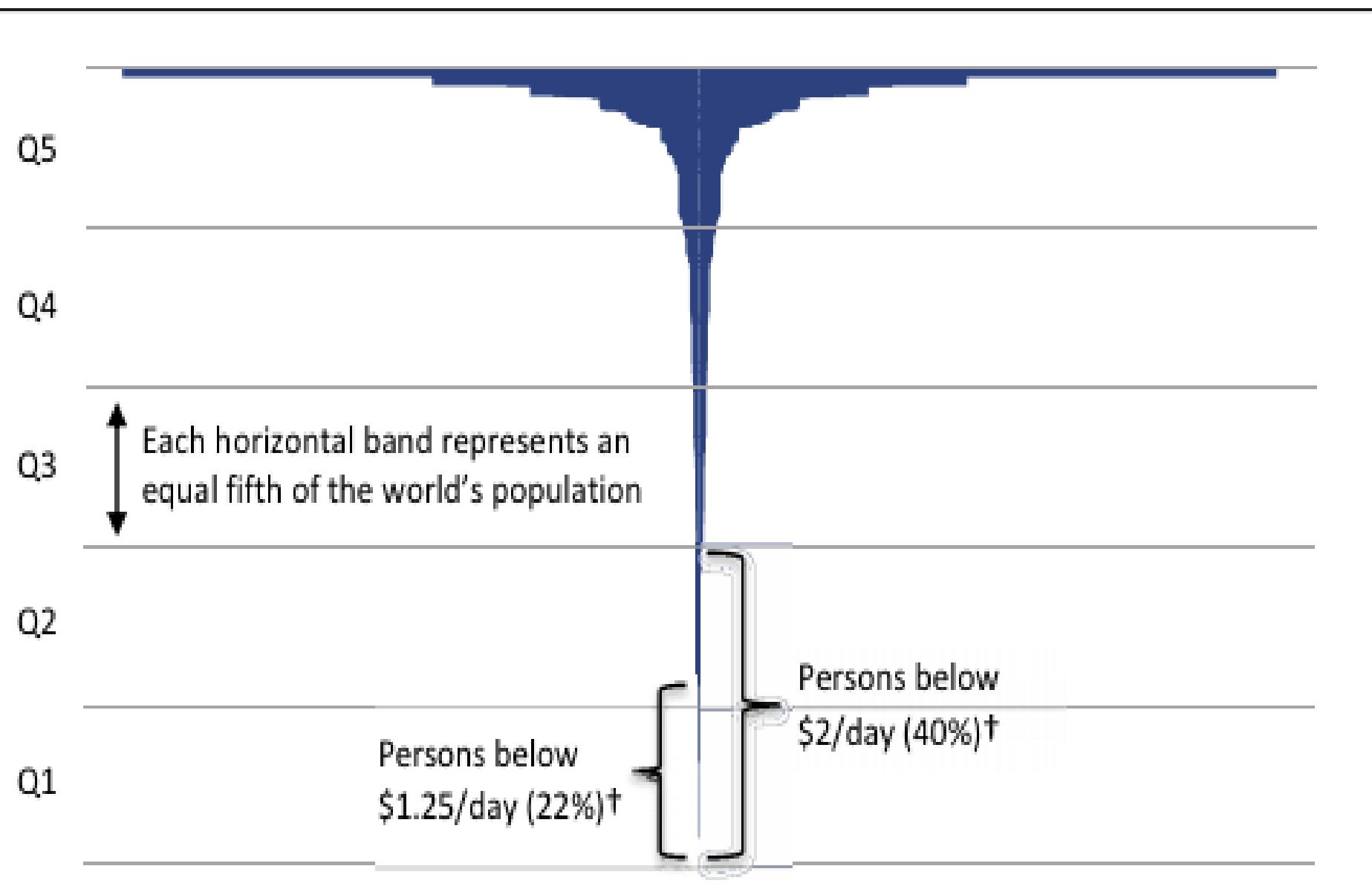


Distribution of Global Income

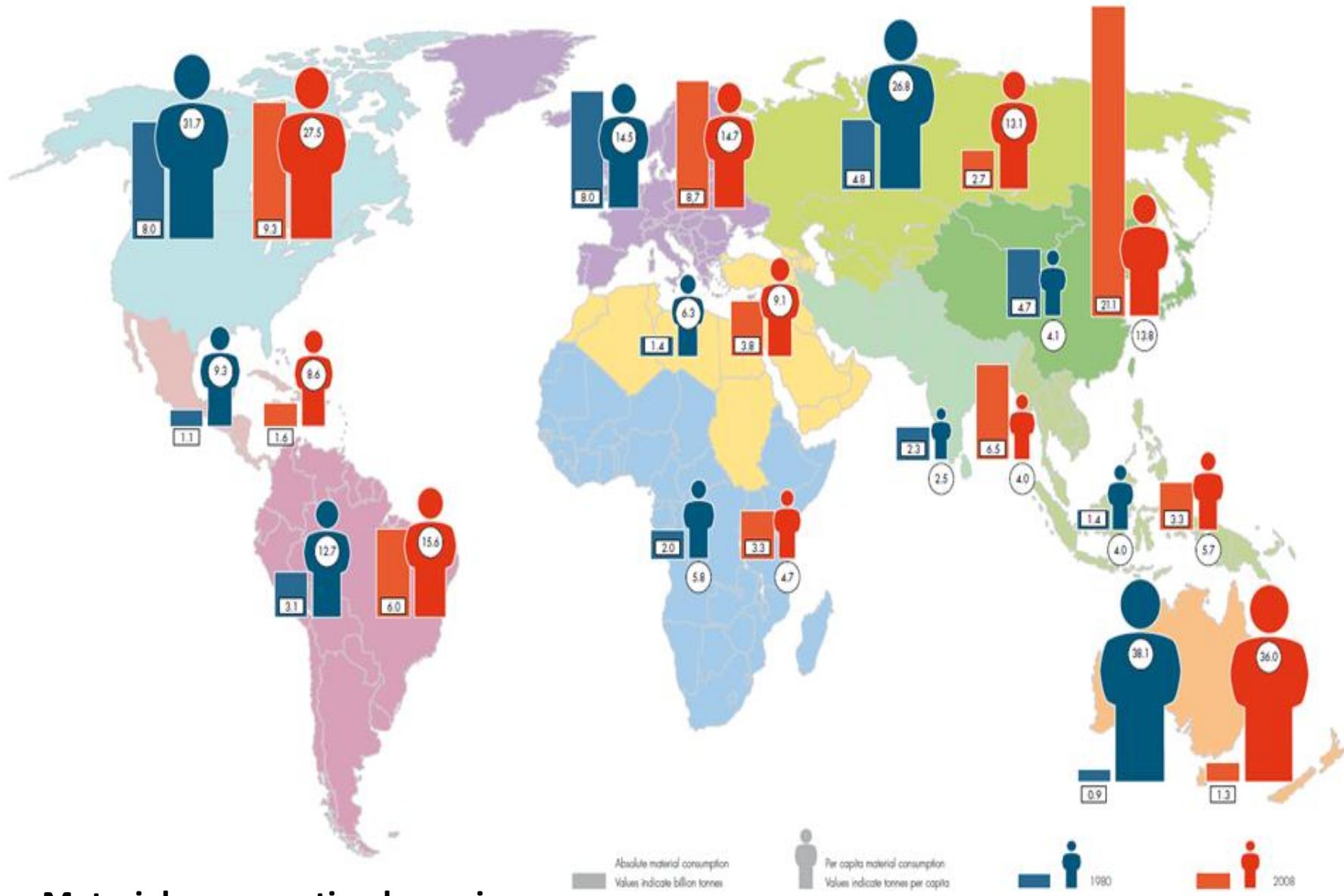


1st HDR, 1990

Figure 7. Global Income Distributed by Percentiles of the Population in 2007
(or latest available) in PPP constant 2005 international dollars*



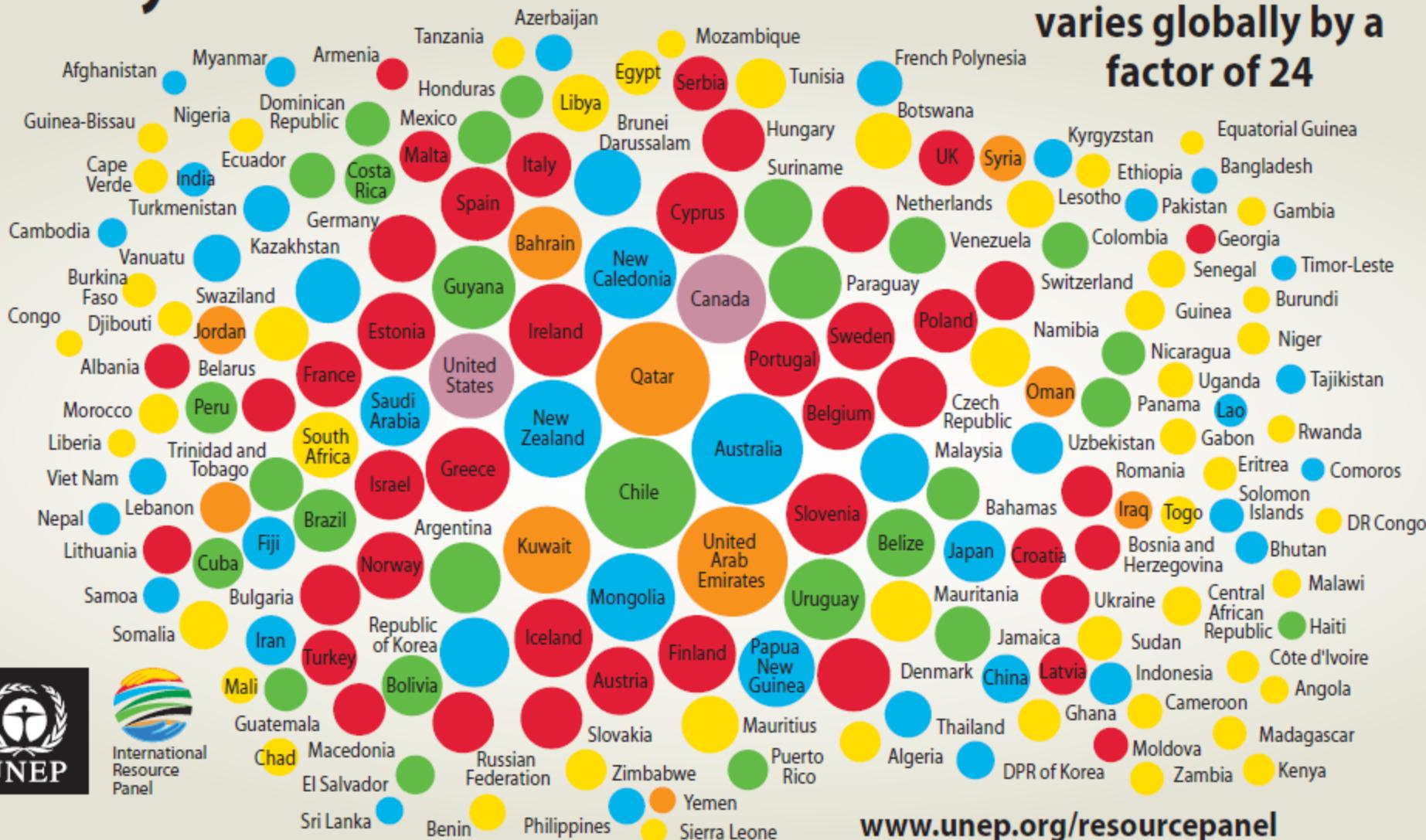
WHO ARE USING NATURAL RESOURCES IN WHERE



Material consumption by region

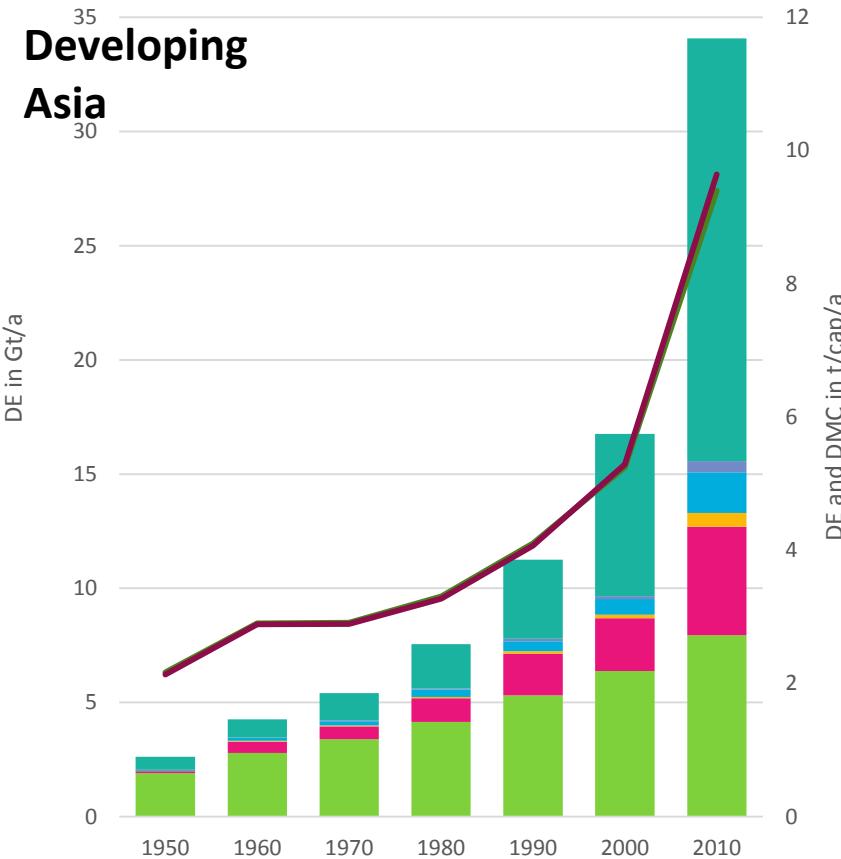
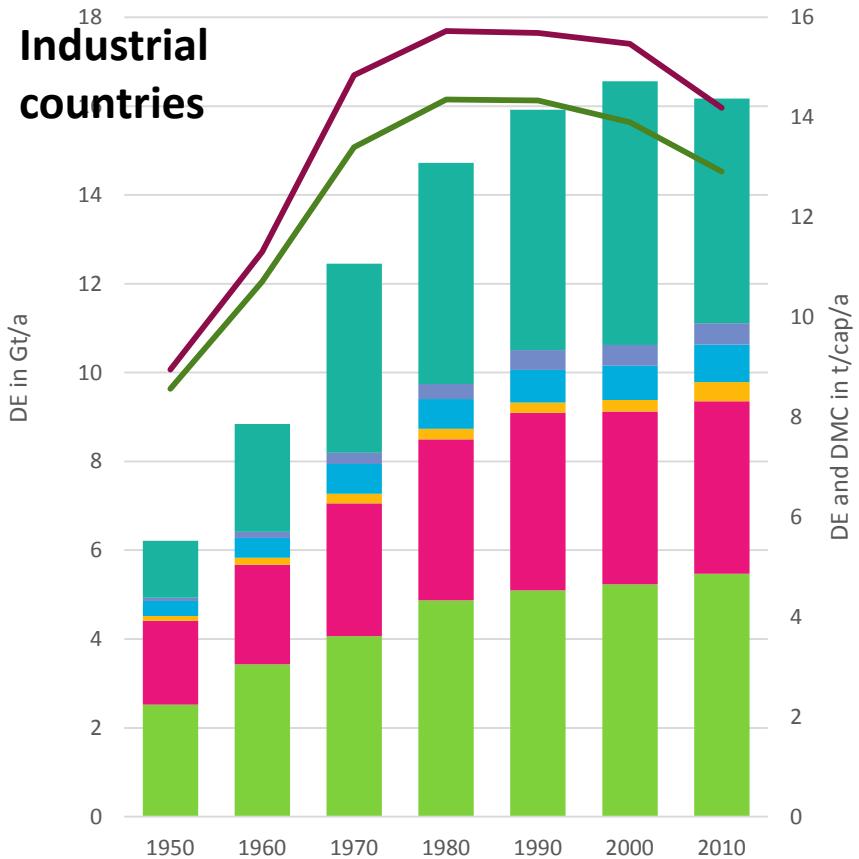
Did you know?

Resource use per capita
varies globally by a
factor of 24



INCREASED USE OF NATURAL RESOURCES

Material flow profiles by world regions



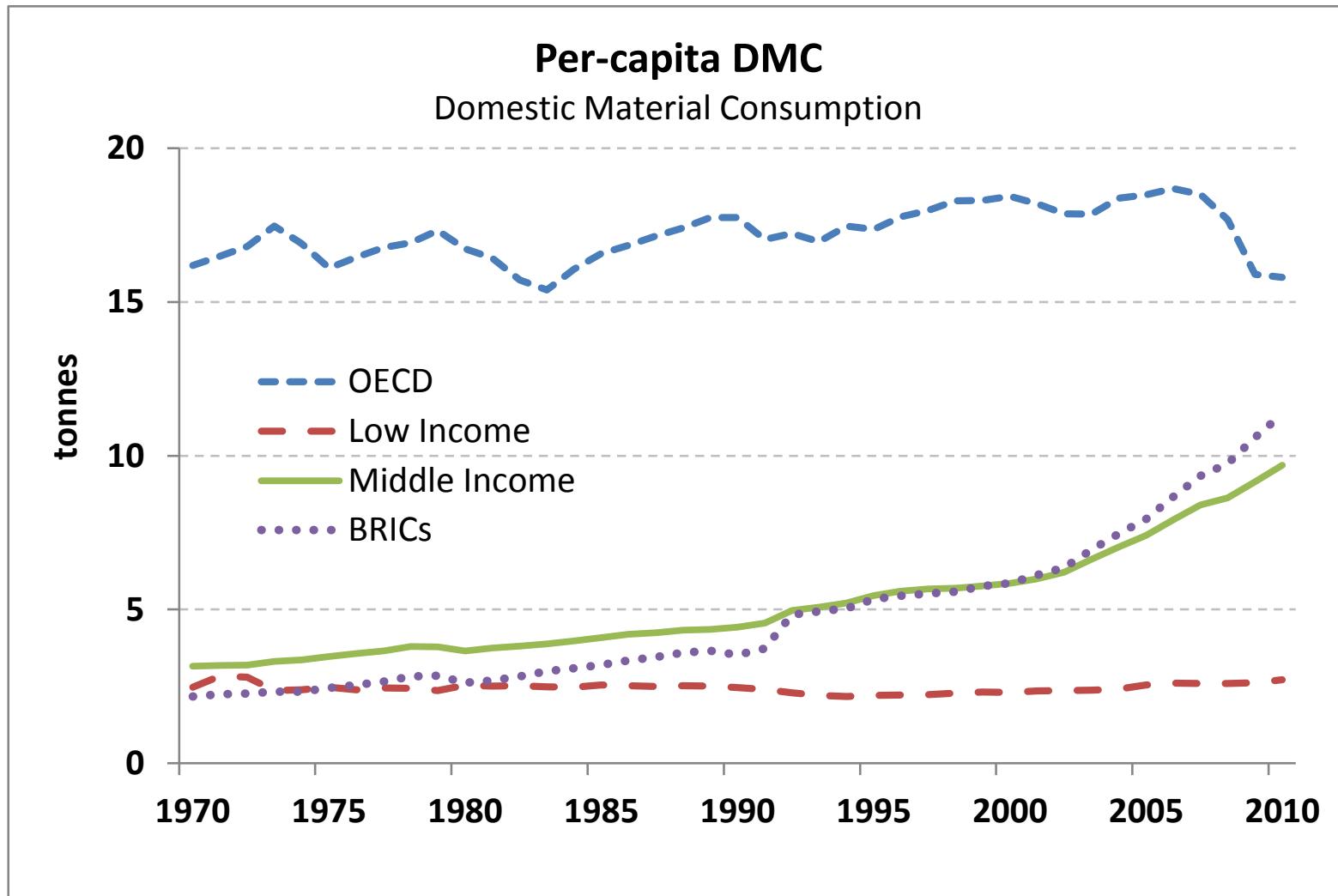
Source: Schaffartzik et al. 2014

biomass fossil fuels metal
waste rock ind. minerals c. minerals
DE [t/cap/y] DMC [t/cap/y]



USE OF NATURAL RESOURCES

Material consumption by country income groups



DIFFERENT WORLDS ON THE SAME PLANET



CONSUMPTION SOCIETY VS SUBSISTENCE SOCIETY



EFFECTIVE GOVERNANCE TO ENSURE EQUITABLE AND SUSTAINABLE USE OF NATURAL RESOURCES

PRINCIPLES

- Security
- Efficiency
- Equity
- Sustainability

**Sound and
inclusive
governance
is a key
determinant**



DIFFERENT TYPES OF RESOURCES REQUIRES DIFFERENT GOVERNANCE

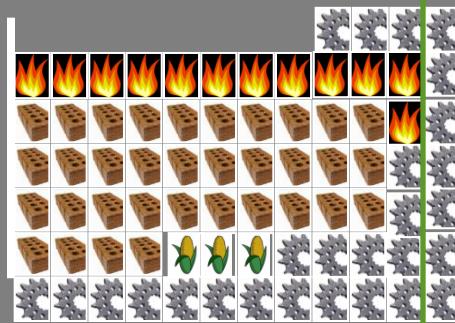


SECURITY IS A REAL AND PRESENT CONCERN

1900

2005

2050

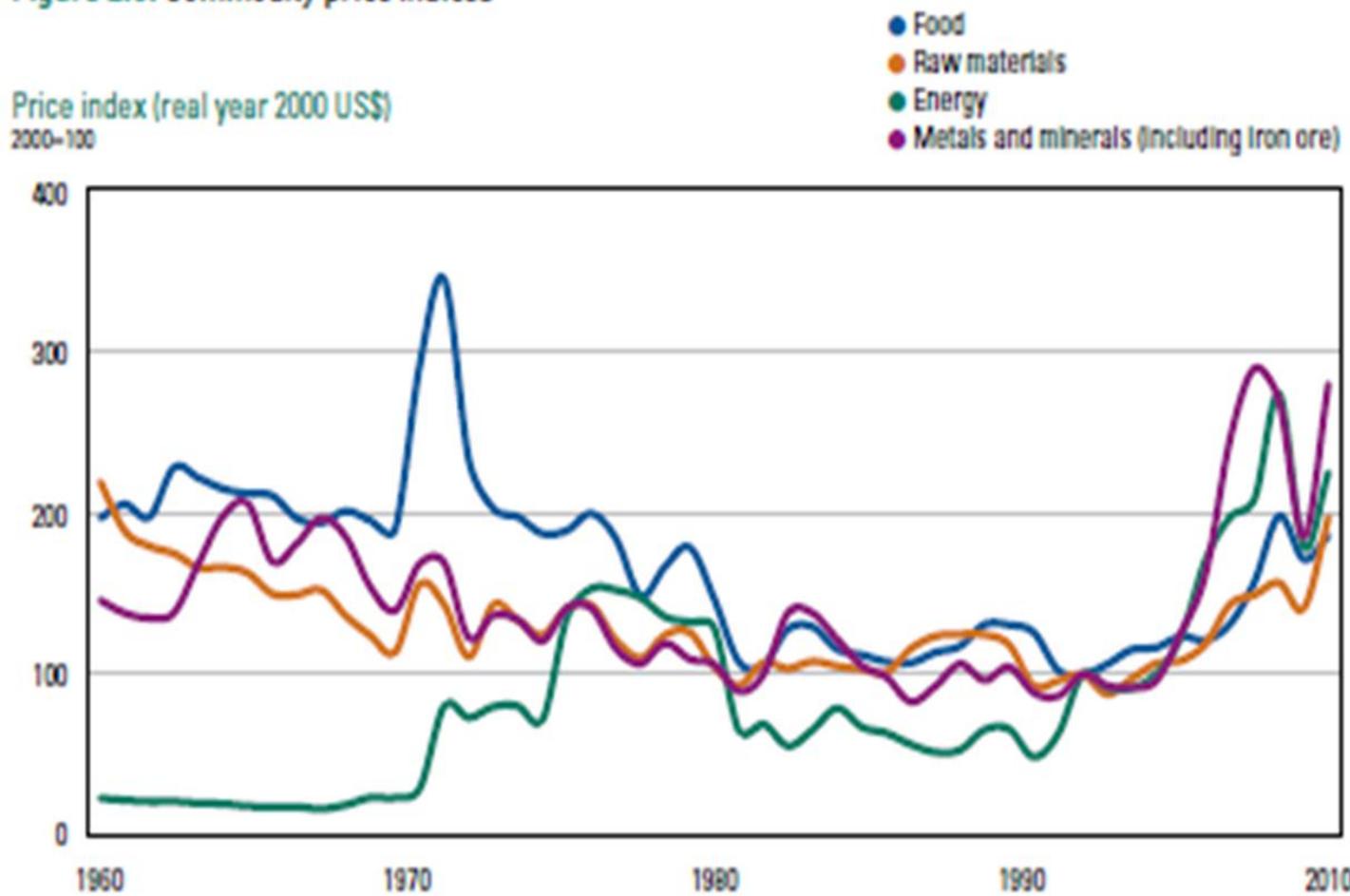


Fact: Increases in population and income will lead to an attempt to triple global resource consumption from today's levels.

(www.unep.org/resourcepanel)

VOLATILE AND UPRISING PRICE

Figure 2.5. Commodity price indices



Source: World Bank Commodity Price Data (Pink Sheet), historical price data, available from <http://blogs.worldbank.org/prospects/global-commodity-watch-march-2011>

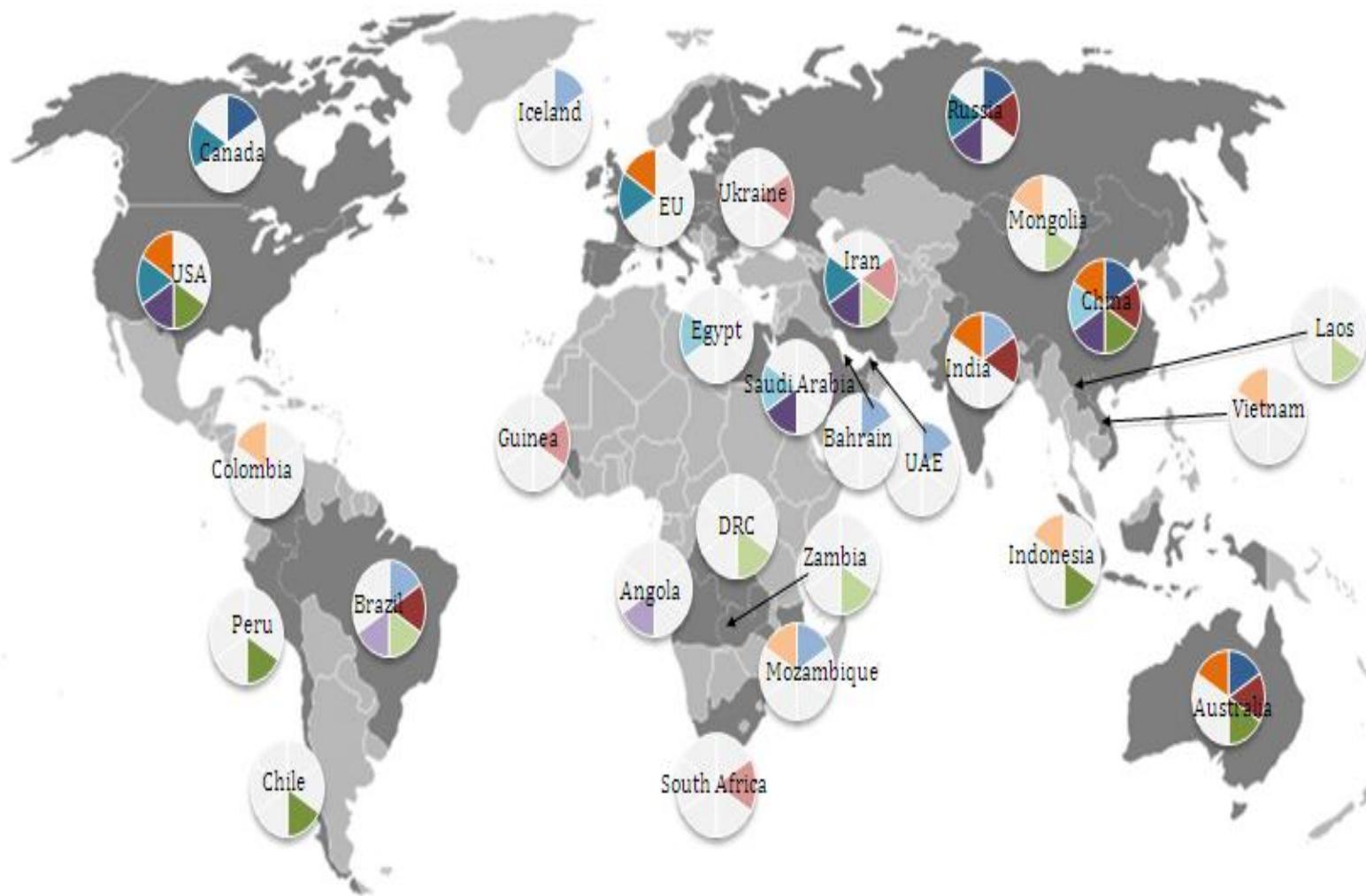


Figure 1: Main Producer Countries (>5% of global production) for Six Major Extractive Commodities and Emerging Producer Countries. Figure created by the author based on data provided in Lee *et al.* 2012. Note that the size of the pie and its segments are equal for all commodities and do not reflect the size of the market held by each country.

Key:

Main producers



Emerging producers



PERMANENT SOVEREIGNTY OVER NATURAL RESOURCES (PSNR)



Resolutions adopted on the reports of the Second Committee

15

have an adverse effect on the exports of developing countries and on the expansion of international trade in general;

(d) Methods and machinery to implement measures relating to the expansion of international trade, including:

- (i) A reappraisal of the effectiveness of the existing international bodies dealing with international trade in meeting trade problems of developing countries, including a consideration of the development of trade relations among countries with uneven levels of economic development, and/or different systems of economic organization and trade;
- (ii) The advisability of eliminating overlapping and duplication by co-ordination or consolidation of the activities of such bodies, of creating conditions for expanded membership and of effecting such other organizational improvements and initiatives as may be needed, so as to maximize the beneficial results of trade for the promotion of economic development.

UNW plenary meeting,
8 December 1962.

1803 (XVII). Permanent sovereignty over natural resources

The General Assembly,

Recalling its resolutions 523 (VI) of 12 January 1952 and 626 (VII) of 21 December 1952,

Bearing in mind its resolution 1314 (A/11) of 12 December 1958, by which it established the Commission on Permanent Sovereignty over Natural Resources and instructed it to conduct a full survey of the status of permanent sovereignty over natural wealth and resources as a basic constituent of the right to self-determination, with recommendations, where necessary, for its strengthening, and decided further that, in the conduct of the full survey of the status of the permanent sovereignty of peoples and nations over their natural wealth and resources, due regard should be paid to the rights and duties of States under international law and to the importance of encouraging international co-operation in the economic development of developing countries,

Bearing in mind its resolution 1512 (XV) of 15 December 1960, in which it recommended that the sovereign right of every State to dispose of its wealth and its natural resources should be respected,

Considering that any measure in this respect must be based on the recognition of the inalienable right of all States freely in dispose of their natural wealth and resources in accordance with their national interests, and on respect for the economic independence of States,

Considering that nothing in paragraph 4 below in any way prejudices the position of any Member State on any aspect of the question of the rights and obligations of successor States and Governments in respect of property acquired before the accession to complete sovereignty of countries formerly under colonial rule,

Noting that the subject of succession of States and Governments is being examined as a matter of priority by the International Law Commission,

Considering that it is desirable to promote international co-operation for the economic development of developing countries, and that economic and financial agreements between the developed and the developing

countries must be based on the principles of equality and of the right of peoples and nations to self-determination,

Considering that the provision of economic and technical assistance, loans and increased foreign investment must not be subject to conditions which conflict with the interests of the recipient State,

Considering the benefits to be derived from exchanges of technical and scientific information likely to promote the development and use of such resources and wealth, and the important part which the United Nations and other international organisations are called upon to play in that connection,

Attaching particular importance to the question of promoting the economic development of developing countries and securing their economic independence,

Noting that the creation and strengthening of the inalienable sovereignty of States over their natural wealth and resources reinforces their economic independence,

Desiring that there should be further consideration by the United Nations of the subject of permanent sovereignty over natural resources in the spirit of international co-operation in the field of economic development, particularly that of the developing countries,

1

Resolves that:

1. The right of peoples and nations to permanent sovereignty over their natural wealth and resources must be exercised in the interest of their national development and of the well-being of the people of the State concerned.

2. The exploration, development and disposition of such resources, as well as the import of the foreign capital required for these purposes, should be in conformity with the rules and regulations which the peoples and nations may consider to be necessary or desirable with regard to the authorization, restrictions or prohibition of such activities.

3. In cases where authorization is granted, the capital imported and the earnings on that capital shall be governed by the same norms, as the national legislation so far, and by international law. The profits derived must be shared in the proportion fixed by agreement, in such cases, between the investors and the recipient State, due care being taken to ensure that there is no impairment, for any reason, of that State's sovereignty over its natural wealth and resources.

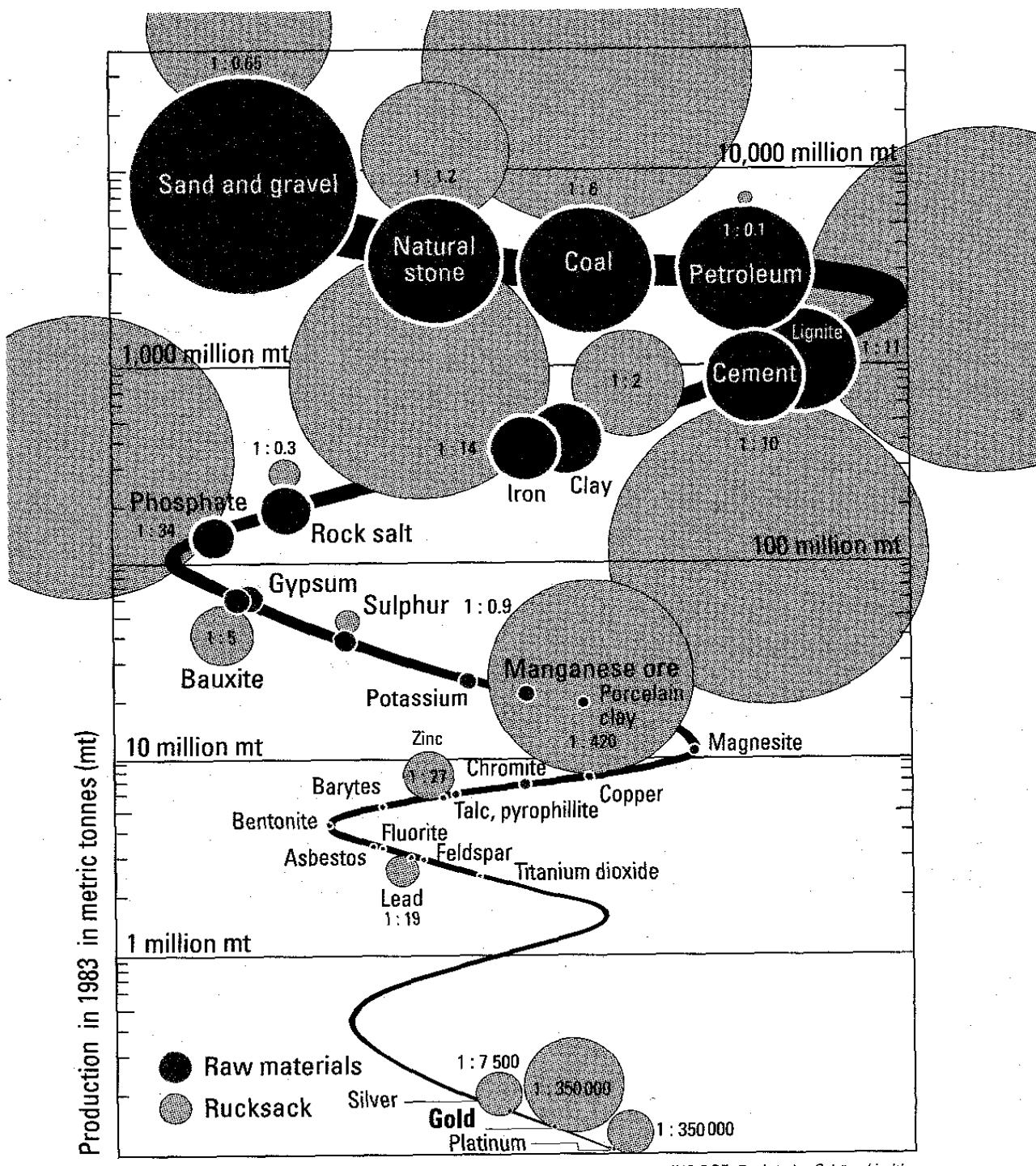
4. Nationalization, expropriation or requisitioning shall be

based on grounds of reason of public utility, security or the national interest, which are recognized as overriding purely individual or private interests, both domestic and foreign. In such cases the owner shall be paid appropriate compensation in accordance with the rules in force in the State taking such measures in the exercise of its sovereignty and in accordance with international law. In any case where the question of compensation gives rise to a controversy, the normal jurisdiction of the State taking such measures shall be exercised. However, upon agreement by sovereign States and other parties concerned, settlement of the dispute should be made through arbitration or international adjudication.

5. The free and beneficial exercise of the sovereignty of peoples and nations over their natural resources must be furthered by mutual respect of States based on their sovereign equality.

6. International co-operation for the economic development of developing countries, whether in the form of public or private capital investments, exchange of goods and services, technical assistance, exchange of scientific information, and so on, as to further their independent national development and shall be based upon respect for their sovereignty over their natural wealth and resources.

7. Violations of the rights of peoples and nations to permanent sovereignty over their natural wealth and resources is contrary



Ecological Rucksacks: Externality

Raw Material

Rucksack

Caring the global utility

Melt descending
into a moulin,
a vertical shaft
carrying water
to ice sheet base
in Greenland.



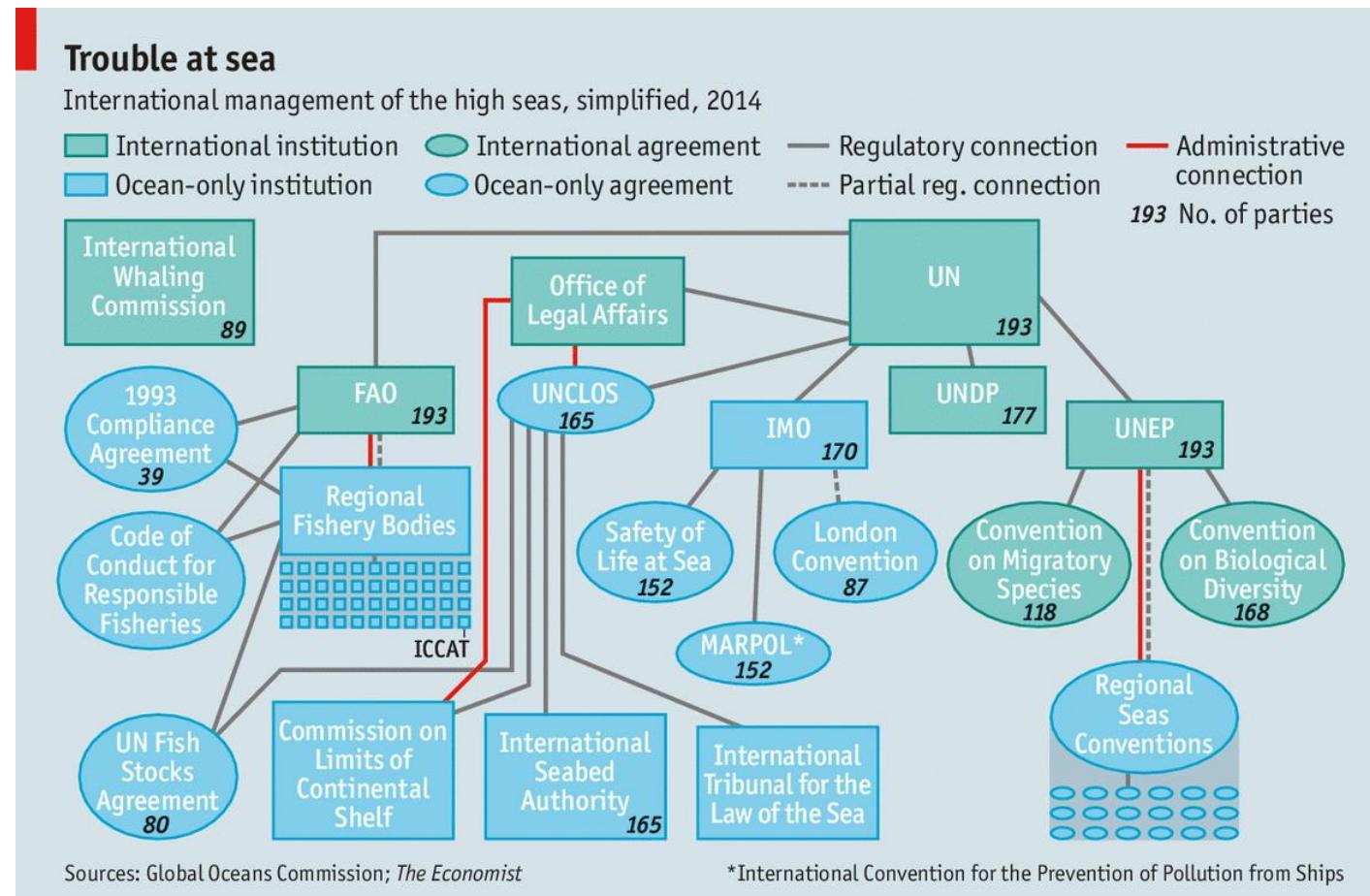
*Source: Roger Braithwaite,
University of Manchester (UK)*

Preserving common resources



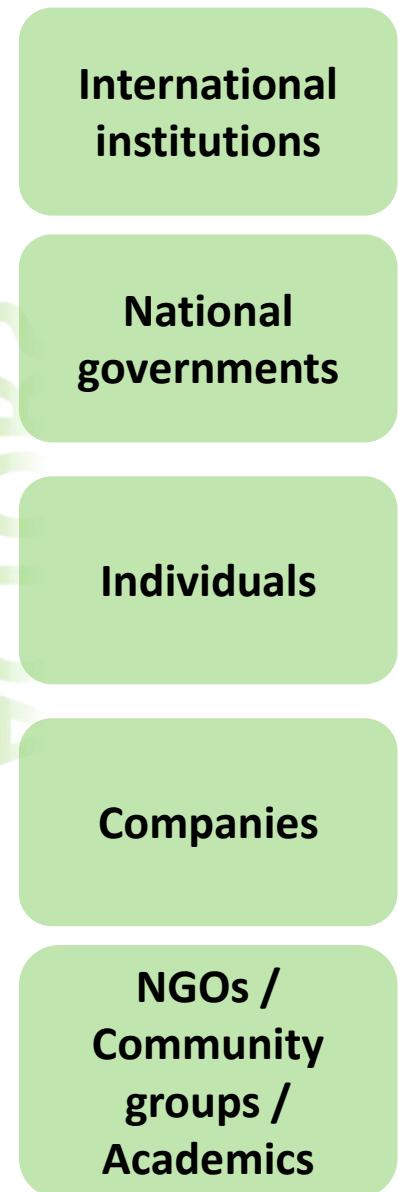
INTERNATIONAL GOVERNANCE OVER OCEANS

A illustration seas – multiple institutions

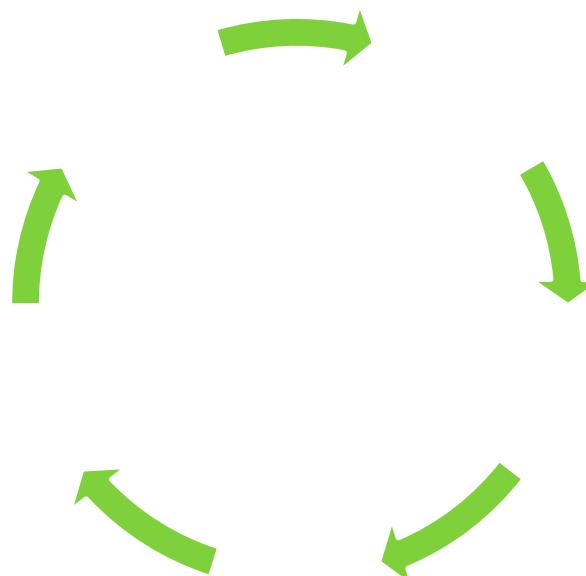


GOVERNANCE STRUCTURE: EXTENSIVE PARTNERSHIPS

ACTORS



MECHANISMS



IRP priority areas 2015-17

- Circular economy and innovation - focusing specifically on tools to extend product life, such as re-use and remanufacturing
- The resource nexus - focusing on restoration and resilience of land and biodiversity, and ecosystem services
- Governance of resources and poverty eradication - focusing on minerals development and improved environmental and social outcomes
- Marine resources - focusing on the interface between land and marine activities, and on linkages between the green and blue economy agendas.



Thank You

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