



An heterodox view on monetary evaluation, natural capital and environmental sustainability policy

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Purposes of this presentation

- Raise awareness in the LG on the existence of different views, in policy-relevant thinking, about the meaning, purpose, ideological background and effects of monetary evaluation
- Stress the uncontroversial policy relevance of physical accounts

Language problems

- «Policymakers are not concerned with the environment because they do not know its value»

VALUE is a very ambiguous word

- «Economists advising policymakers do not listen to us if we use a different language»

(Satellite accounts are already using some language that the economists should understand, but that's clearly not enough)

- «Let us speak to the economists in money terms then! They will finally listen and understand!»

Rather than changing the way decisions are taken, this contributes to extending a certain view of the world

Language conveys world views

«what you call it makes a difference» (M. Vardon, 28.09.2016)

Natural **Capital** (social, human, institutional... Capital)

It is the noun that leads the dance.

final ecosystem Services: things that serve, that are directly useful to humans (actually or potentially) => in line with utilitarianist philosophy

Monetary evaluation of non-market goods is founded in the utilitarianist view of the world

Utilitarianism, marginalism, evaluation /1

- *Utility function:*

$$U_i = f(\text{anything that is important for person } i)$$

- U is monodimensional (a kind of a perfect subjective composite indicator for well-being).
- All arguments are reduced to one dimension
- It makes sense to ask what is each argument's contribution to U
- It makes sense to identify this contribution with its value

Utilitarianism, marginalism, evaluation /2

- the **total** contribution of a good or service to U can usually not be isolated (complementarity)
- Only **marginal** contributions to utilities can be (ideally) isolated
- Under ideal conditions, Pareto-optimality is granted and market prices of goods and services relate to their **marginal** contributions to individual's utilities
- The ideal reference for monetary evaluations of *non-market* goods and services are indeed the actual prices of similar *market* goods and services
- When – as in most cases – similar market goods and services do not exist, reference is unavoidably to some other market goods or services (be it the average bundle that can be bought by one monetary unit)

Utilitarianism, marginalism, evaluation /3

- Ecosystem services and all that's related to ecosystem's existence are just other arguments for $f(.)$
- All of the above applies

Wouldn't we like to know **total** values/utilities rather than **marginal** contributions?

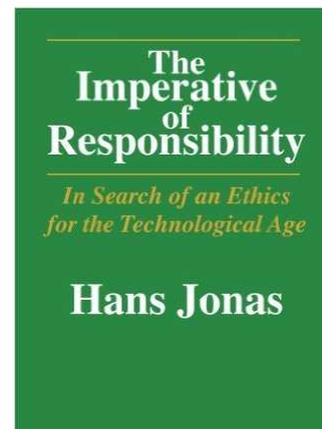
Can the assessment of an ecosystem service's value, based on marginal contributions, be extended at the macro scale?

Why do we write or read that a certain Country's, or even all Earths' Nature «is worth so and so much» and not «Nature's marginal contributions to human well being, measured in terms of what can be bought on the market, is...»?

What language is appropriate for official statistics?

Do we *have to* accept utilitarianism? Two examples of different policy-relevant philosophical positions

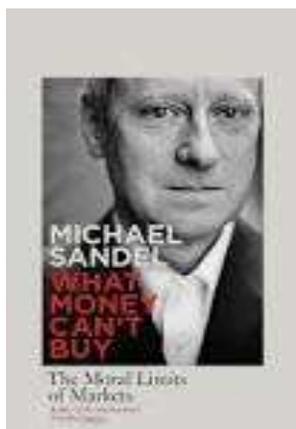
Hans Jonas: *Nature has a purpose of its own*
⇒ no need for further economic justification of conservation policy



‘there are things money can’t buy’...yet?

As Michael Sandel pointed out:

- market boost efficiency, but efficiency is not always the right target
- economic incentives often destroy the very meaning of what they are trying to preserve
- we are going from *having a market economy* to *being a market society*.



How do monetary value tags and language modify the very way society looks at Nature? Do they not pave the way for actual markets creation?

Do we *have to* accept utilitarianist ideology?

Is it possible to think about

- Economic opportunities given up for conservation
- Actual economic benefits of environmental protection
- Economic opportunities of conservation

In a more secular way?

Can these be accounted for in official statistics?

Are these not different from actual money flows connected to the environment?

Marginalist production functions

$$X=g(\text{all current inputs})$$

Telling apart the contributions to production of different arguments: same problems as for $U=f(.)$

- whether it is a usual p.f. of an ecosystem p.f.
- whether the arguments comprise labour or man-made inputs or not;
- whether the final ecosystem service provided is something already within the SNA production boundary or it is something outside

Under certain conditions (usually postulated in standard economics) the **marginal** contributions can be assessed «what will the increase in the output be if I use one more unit of that argument?»). This has the same limitations, as a basis for assessing Nature's value, as the utility function.

Non-marginalist production functions

There is in economics also on this.

Indeed, there are several production theories.

One is Leontiev's, which leads to the fixed coefficients of the IO matrix (no increment in output if not all input are increased in the same proportions).

The only environmentally meaningful p.f., in my view, is Georgescu's **multidimensional** one, whose outputs are **the post-production status of all arguments** – including stock elements such as the ecosystems.

If constructing this kind of function is what physical ecosystem accounts do, monetary evaluation is what destroys it!

Monodimensionality as epistemological closeness

Single–unit measurement: well-being is reduced to one dimension, the economic one

Specificities, own characteristic properties, of things that contribute to well being are denied or blurred => all economic decisions can be driven by a ‘simple’ model where the bottom line of (discounted) income/costs balance tells everything we need to know.

Economists discovered that ecosystems count, but cannot live with the idea that ecosystems cannot be "counted" by their special measuring rod, by which people’s and capital’s (including land) marginal contributions to production are usually measured.

Technical artifacts for transformation => Lakatos ‘protective belt’.

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For a multidimensional, epistemologically open approach

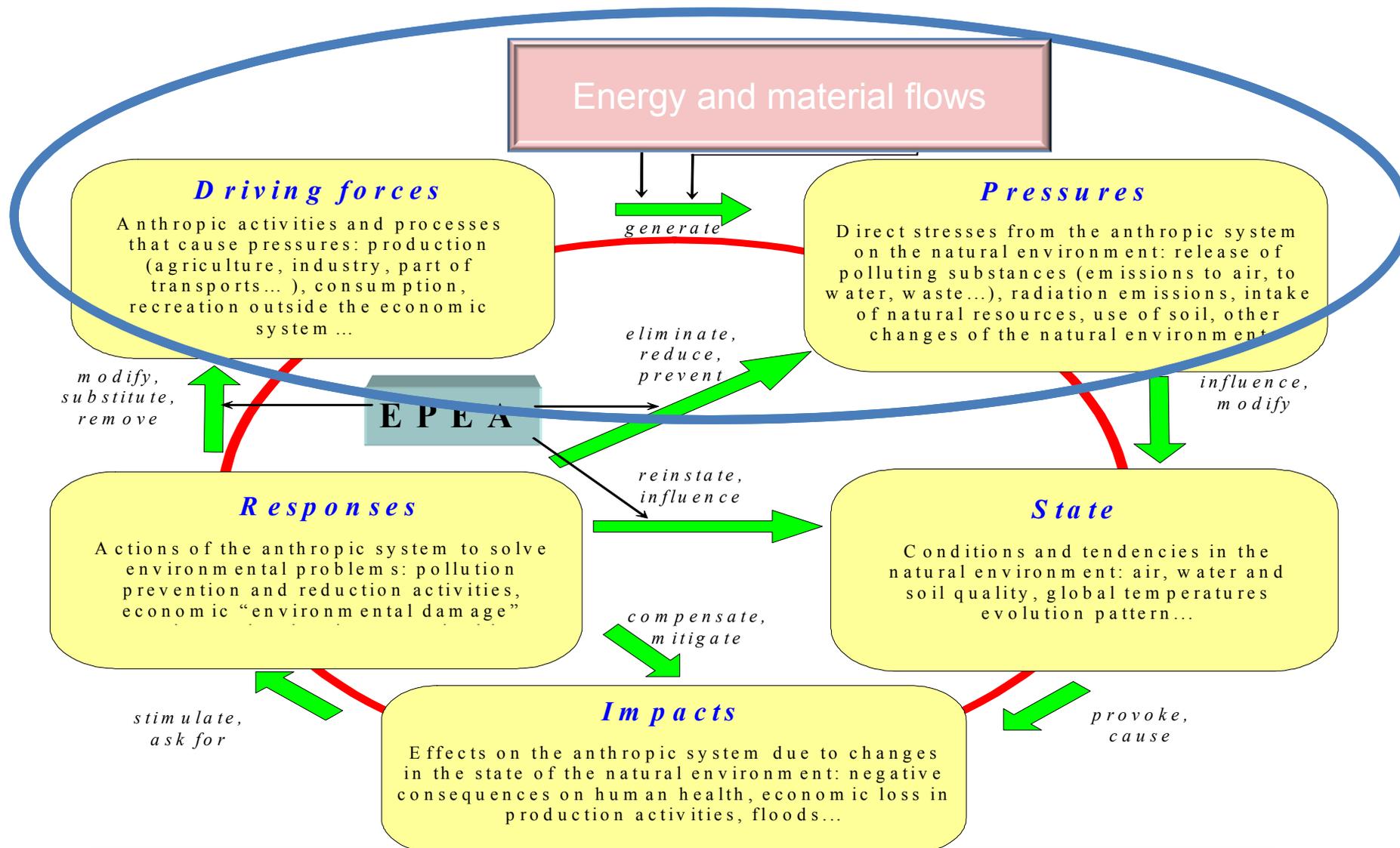
A multidimensional approach allows:

- to fully profit from things being measured each by their own unit;
- for knowledge provided by other sciences to be **put in relation** to the economic dimension without being reduced to it;
- for assessing the status of stock elements (ecosystems) considered *per se*;
- Calls upon synthesis methods other than reduction to (any) single unit;
- Does not require these methods to be economicist technicisms leading to business-like choices, but allows for them to be inclusive societal processes.

Satellite accounting

- What does it mean establishing a LINK with the economy? Is a REDUCTION of the Nature to the economic dimension establishing a link?
- Physical accounts are propedeutical to any other exercise, including monetary evaluation
- Policy decisions as optimisation problem:
 - Maximise GDP under biophysical constraints dictated by science => **requires physical satellite accounts**;
 - Maximise environment conservation under the constraint of providing certain GDP growth and business opportunities => requires monetary evaluation of opportunities provided

SEEA-CF PFA in the DPSIR framework



Official statistics / analysis / modelling

- The farther we go from observable biophysical or economic real facts or transactions to ideal constructs, the more we need assumptions, hypotheses, approximations, models
- Where is the boundary? It is quite difficult to live with a great variety of methods and results. What we usually do is compare results and accept them as possible products for official statistics when the differences between the methods are «reasonably small» or at least «point in the same direction».

Is this the case with monetary valuation?

Use of economic instruments

- Does not require monetary evaluation
- Requires broader assessment of appropriateness, effectiveness and efficiency

Incentives and disincentives to doing or not doing something need not be related to Pareto-optimality (internalisation of externalities) but simply to steer businesses, PA and consumers in a direction which is 'right' in the light of scientific knowledge and whose legitimation comes not from economic calculation but from societal (political) processes

Thank you!