Edwin Zaccaï

"FROM CONCEPTIONS OF SUSTAINABILITY TO INDICATORS"

Summary and notes

Progresses in sustainable development can only be assessed within a frame of reference. The official expressions that define sustainable development are relatively consensual and do not necessarily provide enough criterions upon which assessment can be based.

"SD is development that meets the needs of the present without compromising the ability of future generations to meet their own needs"
(WCED 1987, "Brundtland Report")

Stays in the UN development tradition
Sets conditions on the future (long term)
(NB. There are other definitions by the WCED)

SD means "improving the quality of human life while living within the carrying capacity of supporting ecosystems"
(IUCN-UNEP-WWF, 1991, "Caring for the Earth : a Strategy for Sustainable Living").

Adds a condition on natural environment, inspired by an ecological model

SD " requires dealing with economic, social and environmental policies in a mutually reinforcing way".
"The Union's Sustainable Development Strategy is based on the principle that the economic, social and environmental effects of all policies should be examined in a coordinated way and taken into account in decision-making"
(Presidency conclusions, Göteborg European Council,Jjune 2001, § 19 and §22).

Taking up of this formula for corporate sustainability ("triple bottom line")
Listing of diverse combinations of achievements belonging to different "dimensions"
Indicators for different criteria in each "dimensions"

To integrate, to balance the economic – social – environmental dimension
What means a well-balanced approach, with different dimensions and different criteria
Must every single actions have these three aspects "balanced" ?
What for environmental action that are not economically profitable ?

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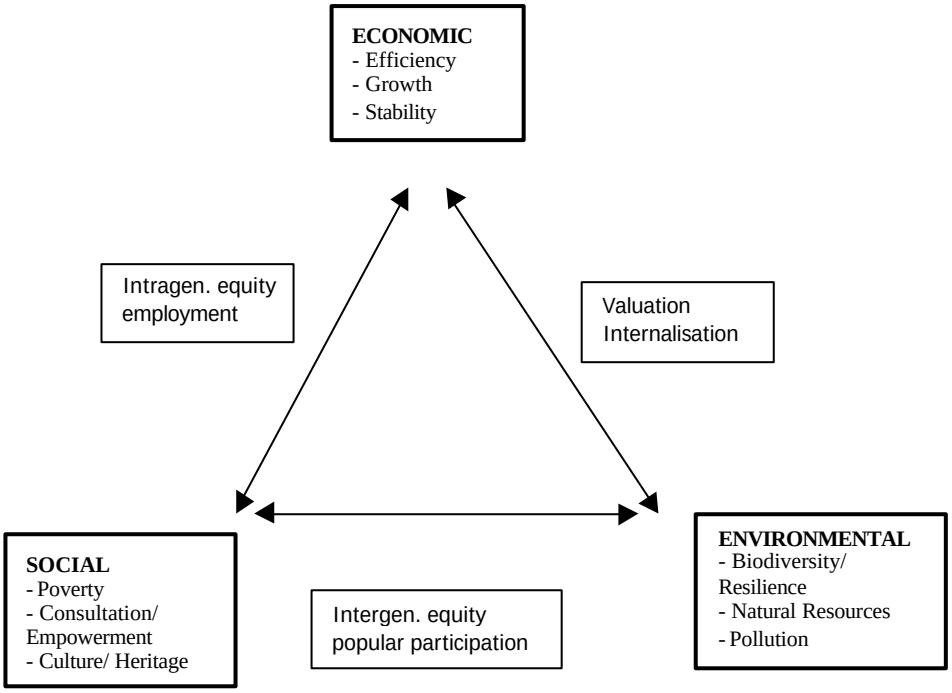

(World Bank, 1993-1995)

SD is "non declining consumption per capita, or GNP, or whatever the agreed indicator of development is"
(D. Pearce 1998, Economics and Environment)

Indicators for measuring are explicitly introduced

Conclusions

Plurality of conceptions
Different sources propose different sets of criteria that characterize SD.
One aggregation of these criteria (Zaccaï 2002) : importance of environment / global vision / long term / integration / innovative image

Consensus at the first level, disputes and contestations at the second level (on how the concept should be interpreted in practice). "Contestable concept" (M. Jacobs 1998), cf. democracy, justice, etc.
Evaluation concerns the second level

But SD contains also a charge of image, (ethical) principle, project for the Society (alternative to Progress ?), which cannot be reduced to evaluation.

"*The phrase "sustainable development" has staying power because most people want to believe in it. It survives because it appears to build bridges between the demands of environmentalists and developers. It sounds comforting - human well-being and economic security for ever, not brought to heel by ecological collapse or social distress. It is an article of faith, and in that sense almost a religious idea, similar to justice, equality and freedom*"
(Pearce 1993: 183-184)

Ex.1. : European Union, SD Strategy, 2001

Integrating environment into Community policies
Decoupling economic growth from resource use
Priorities :

- Combating climate change
- Ensuring sustainable transport
- Addressing threats to public health
- Managing natural resources more responsibly

(Presidency conclusions, Göteborg European Council, june 2001)

Ex. 2. : World Summit on Sustainable Development, 2002

- Poverty eradication
- Changing unsustainable patterns of consumption and production
- Protecting and managing the natural resource base of economic and social development
- Sustainable Development in A Globalizing World
- Health and Sustainable Development
- Sustainable Development of Small Island Developing States
- Sustainable development initiatives for Africa

(Commission on Sustainable Development Acting as the Preparatory Committee for the WSSD, Chairman's Text for Negotiation, 9/5/02)

Some questions

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- European level : add the environmental pillar to a socio-economic strategy (Lisbon 1999). Also opening towards a balanced project
- UN level : social dimensions are explicitly involved, but for some topics (poverty, health), and not others (ex. employment, education)

Implications for evaluation : which topics to be included

Process

Are we in presence of real coherent plans, or of catalogues of separated actions gathered for ad hoc presentation ?
Coordination : who, at what level, etc.
Implications for evaluation : when and how in the process

Evaluation by indicators

Today there is a trend favouring indicators in the assessment of policies. But the term "indicator" hides in fact a wide variety of data types.

- Which indicators are to be **chosen** according to the actions to be assessed?
- The indicators bound to **changes occuring physically** (e.g. pollution reduction) have for instance to be differentiated from those relating to the **means used** (e.g. number of legislations, or investment amounts).
- What optimal level of **aggregation** is to be used, and what coordination is to be aimed at between different indicators systems?
- What is the place of analysis on the one hand, and of quantitative aspects on the other?

See in the following examples

EU : "Structural indicators"

(Com (2001) 619 final)
5 categories (Economy, social, ...)
Environment :

- Greenhouses gases emissions / Energy intensity of the economy / Volume of transport relative to GDP / Modal split of transport / Urban air quality / Municipal waste

Set of indicators allowing comparison between countries (but with what purpose ?)
Coherency with some objectives of the EU SD Strategy ("decoupling") and not others (natural resources)
6 env. indicators are from sufficient for political evaluation

Stockholm's Local Agenda 21 Program

(in *A. Atkisson 2002*)

Miljö	Trend
Energianvändning per person och år	↗
Sopmängden per person och år	→
Tillförseln av tungmetaller	↗
Utsläpp av koldioxid per person	→
Antalet dagar med bra luft	↗
Andelen trafikanter som åker kollektivt	→

Ekonomi	
Bruttoregionprodukt per person och år	↗
Sysselsättningsnivå	↗
Utbildningsnivå	→
Försäljningsvolymen av miljömärkta livsmedel	↗

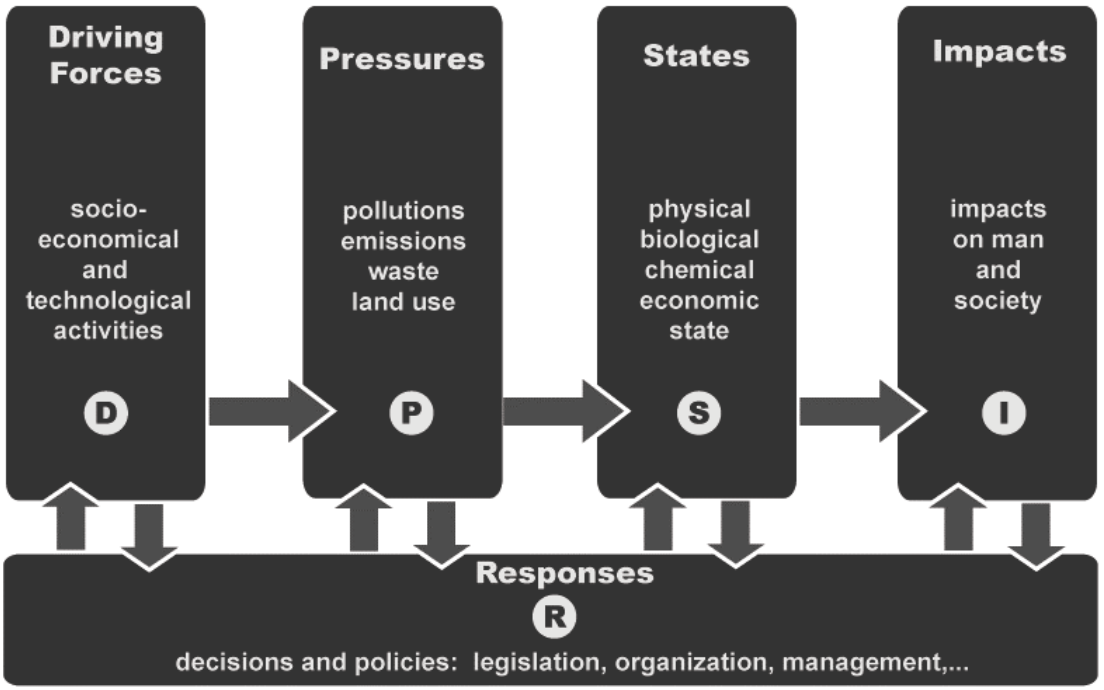
Social utveckling	
Astma	↗
Andelen personer som känner ekonomisk trygghet	↗
Andelen personer som är rädda för våld	↘
Barns tid ihop med vuxna under sin uppväxt	?

Demokrati	
Andelen ideellt engagerade personer	?
Valdeltagandet bland förstagångsväljare	↘
Antalet personer som känner sig delaktiga i samhället	?
Andelen ungdomar under 25 år som anser sig kunna påverka samhällsutvecklingen	?

The UK's "Headline Indicators"

H1 Economic output				Improved	2000
H2 Investment				No change	2000
H3 Employment				No change	2001
H4 Poverty				No change	2001
H5 Education				Improved	2000
H6 Health				No new data	1998
H7 Housing				No new data	1996
H8 Crime	Violent			Deteriorated	2000/2001
	Vehicle, burglary			Improved	2000/2001
H9 Climate change				Improved	2000
H10 Air quality				Improved	2000
H11 Road traffic				No change	2000
H12 River water quality				Improved	1999
H13 Wildlife (Farmland birds)				No new data	1999
H14 Land use				Deteriorated	2000
H15 Waste				No new data	1997/98

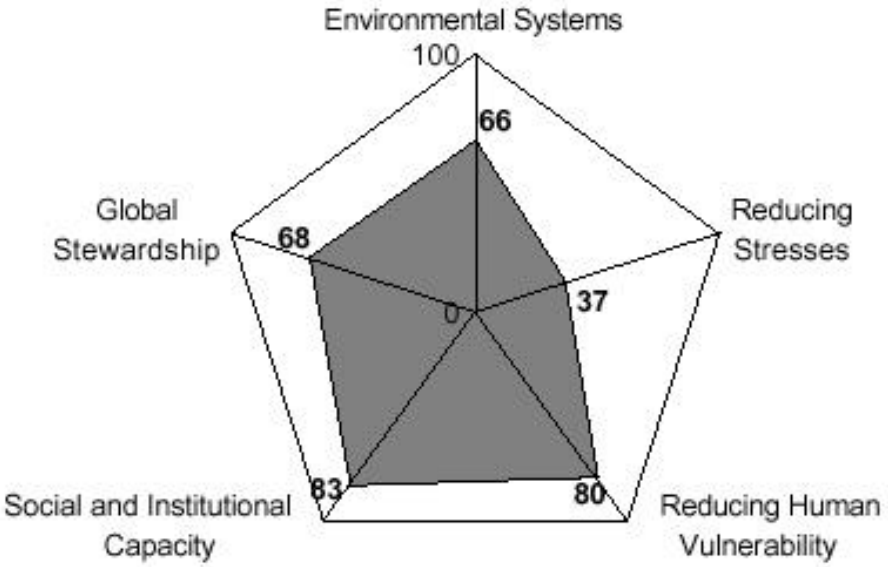
Indicators for the Environment : The "DPSIR Model"



Environmental Sustainability Index

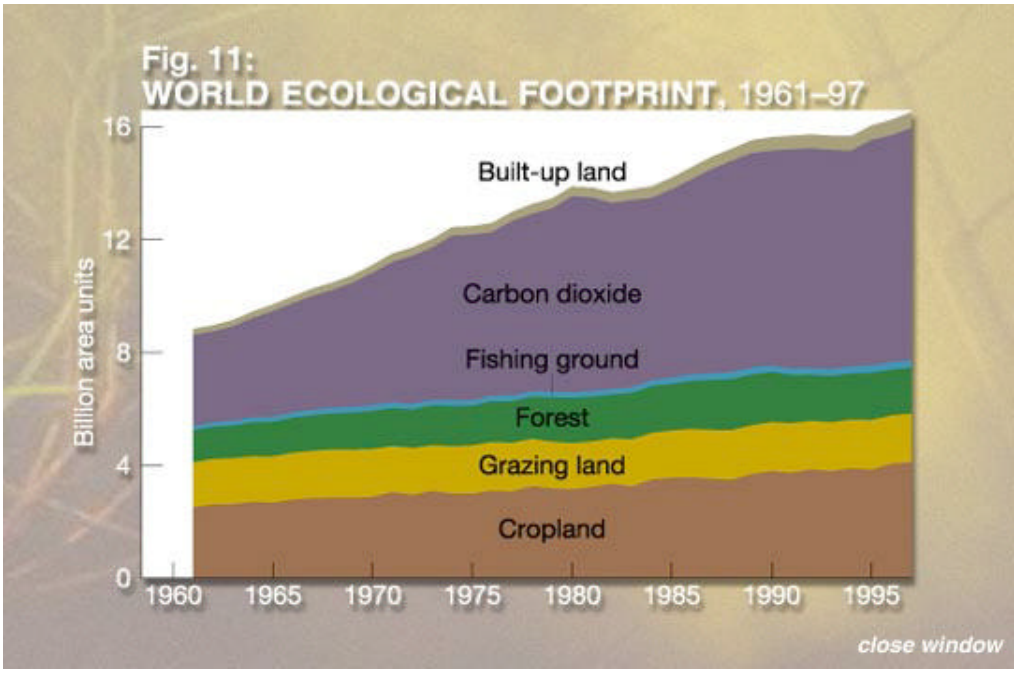
(World Economic Forum)

Ex.: Austria



World Ecological Footprint

(WWF)



Human Development Index
(PNUD)
6 Examples of ranking

1999		Life expect. at birth	Adult lite-racy rate	Enrol-ment ratio	Real GDP p.c. (USD)	Human development index (HDI)	Real GDP p.c. minus HDI rank
4	**Sweden**	79,6	99	100	22 636	0,936	+13
5	**Belgium**	78,2	99	100	25 443	0,935	+4
6	**USA**	76,8	99	95	31 872	0,934	-4
85	**Albania**	73	84	71	3 189	0,725	+16
86	**Dominic. Republic**	67,2	83,2	72	5 507	0,722	-16
87	**China**	70,2	83,5	73	3617	0,718	+7

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Index of Sustainable Economic Welfare

(Daly and Cobb)