What is Sustainability?
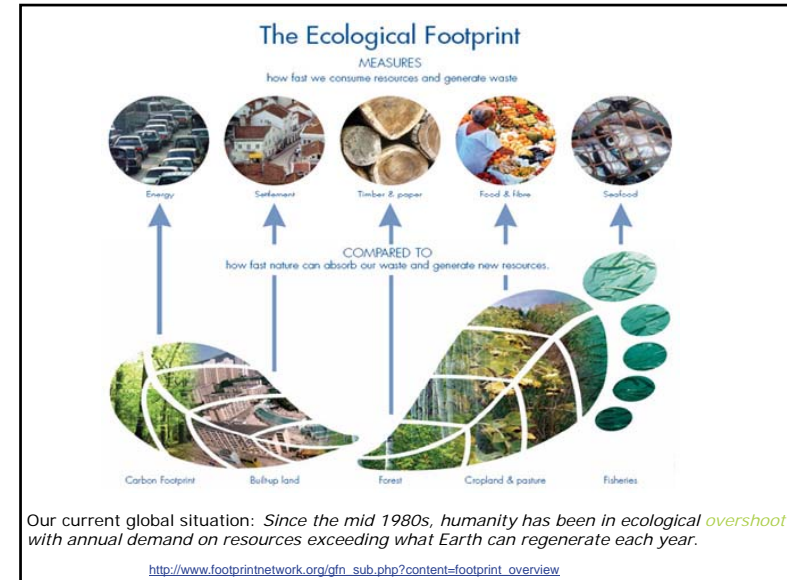## - Vision & indicators

Manager, Japan for Sustainability
CEO, EcoNetworks
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Our current global situation: *Since the mid 1980s, humanity has been in ecological overshoot with annual demand on resources exceeding what Earth can regenerate each year.*

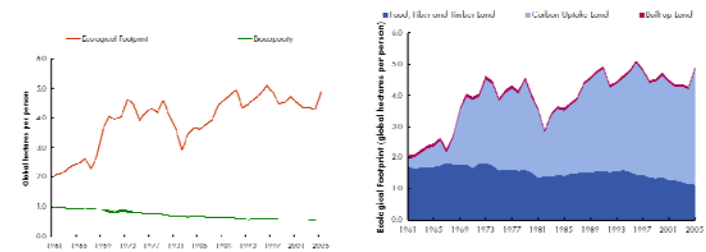http://www.footprintnetwork.org/gfn_sub.php?content=footprint_overview

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China's Footprint 1961-2005

This graph shows how China has moved from using, in net terms, about 0.8 times its domestic biocapacity in 1961 to twice its own biocapacity in 2002. The ecological deficit that exists when ecological demand exceeds supply can be financed by importing biocapacity, liquidating existing stocks of ecological capital, or allowing wastes to accumulate and ecosystems to degrade.
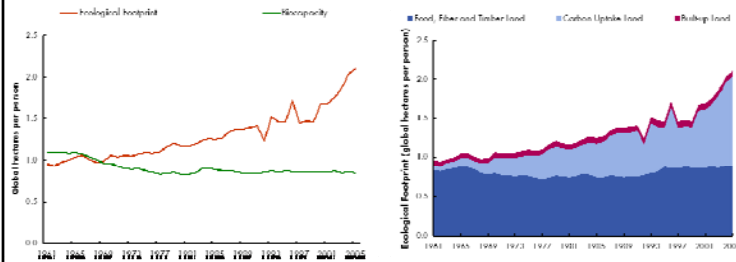
http://www.footprintnetwork.org/gfn_sub.php?content=national_footprints

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Japan's Footprint 1961-2005

http://www.footprintnetwork.org/gfn_sub.php?content=national_footprints

India's Footprint 1961-2005

Although India's Footprint has exceeded its domestically available biocapacity for over forty years, ecological demands have continued to grow to more than double biocapacity by 2002. The ecological deficit that exists when ecological demand exceeds supply can be financed by importing biocapacity, liquidating existing stocks of ecological capital, or allowing wastes to accumulate and ecosystems to degrade.

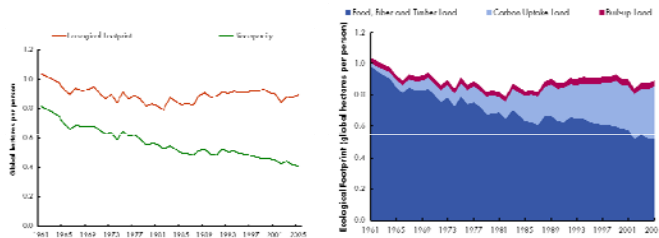http://www.footprintnetwork.org/gfn_sub.php?content=national_footprints

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Workshop - Vision & Indicator

<Mission>
Imagine that we are holding "World Summit on Sustainable Development" in this room.

You should be able to present the followings;
-What is sustainability (with your own terms)
-What is your vision/indicators for sustainability (with your own logic)

<Process>
・Area: Energy & climate change + economy + food, waste, bio-diversity, resource-productivity, equity, satisfaction…
・Individual work
・Presentation & Discussion

Workshop - Vision & Indicators

Presentation example

<Vision – Polestar>
・GHG emissions will be

・Energy mix will be…

Ζ Ζ Ζ Ζ Ζ

<Indicators>
・Energy consumption per capita

・% of nuclear energy for electricity

Ζ Ζ Ζ Ζ Ζ

Workshop - Vision & Indicators

<To start your thinking… >
1.   Vision –
In 2050, we want the situations concerning energy will be like this….
When it comes to oil/nuclear energy, …
When it comes to renewable energy, …
The GHG emissions level is where …
One we achieve this vision, we will be able to …
The implication for food is…
2.   Indicator –
We recommend YY as a indicator to measure our progress toward this vision.
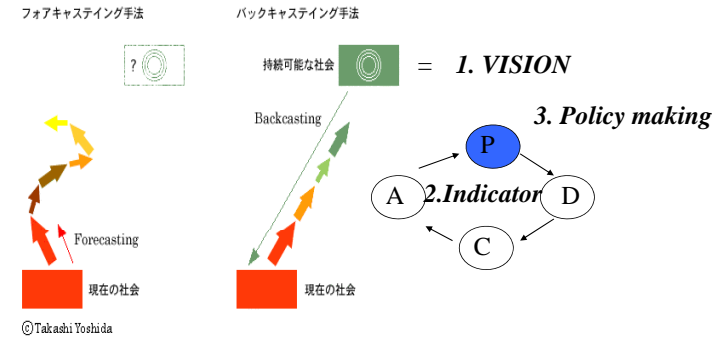YY is…
It can tell us ….
The reason why we think YY is better than ZZ is that….
Other possible indicators are…

What is vision?

· Different from "forecast" / "prediction"

· "The Polestar"

· An ideal state

    – Where you want to go

· Guide us through the journey

· Inspire best brains

Vision, Indicator, and Policy making

フォアキャステイング手法   バックキャステイング手法

? ◎   持続可能な社会 ◎ = *1. VISION*

Backcasting

3. Policy making

P

A *2.Indicator* D

C

Forecasting

現在の社会   現在の社会

ⓒ Takashi Yoshida

Keys for ISD (Indicators for Sustainable Development)

- **Systemic**
  – sources, sinks, change rates, thresholds, feedback …
- **Integrated**
  – environmental, economic, social, individual
- **Long-term**
  – minimum one generation

by Alan Atkisson

ISD: DIFFERENT AT DIFFERENT SCALES

Global: CO2, Population, Food Production

National: GDP, HDI, ESI, Employment

Regional: Baltic Sea Fisheries & Industries

Local: Transit, Energy Use, Health Stats

Neighborhood: # of Abandoned Buildings

by Alan Atkisson

Standards for assessment of progress for sustainable development

The "Bellagio Principles"

http://www.iisd.org/pdf/bellagio.pdf

1. Guiding Vision and Goals
 (clarity about sustainability)

6. Openness
 (transparent methods and sources)

2. Holistic Perspective
 (systems and subsystems)

7. Effective Communication
 (simple, and audience focused)

3. Essential Elements
 (ecology, economics, social equity)

8. Broad Participation
 (diversity, completeness, link to policy)

4. Adequate Scope
 (temporal and spatial)

9. Ongoing Assessment
 (iterative, adaptive, learning-focused)

5. Practical Focus
 (clear standards, manageable tools)

10. Institutional Capacity
 (support, maintenance, development)

Good Sustainability Policy?
- Change the structure

➢ Change feedback structure/information links in the system

➢ Change the content and timeliness of the data that actors in the system have to work with

➢ Change the ideas, goals, incentives, costs, and feedbacks that motivates or constrain behavior

➢ In time, system with a new information structure is likely to change its social and physical structures.

➢ It may develop new laws, organizations, technologies, people with new skills, machines and buildings.

➢ Such a transformation need not be directed centrally; it can be unplanned, natural, evolutionary, exciting, joyful.