

Sustainability:

- Explain it in your own terms

Japan for Sustainability

Manager

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My Brief Background

- Environmental Economics & Policies / Debate Team (UC Berkeley)
- Writer & Producer since 1999
- Media Produce:
 - Books:
 - “The Future of Money”
 - “Silicon Valley – anatomy of entrepreneurial region”
 - Web:
 - Bilingual online magazine “The Bridge”
 - Articles:
 - Women’s Feature Service / English Style / Greenbus.com
- Communication Platform “Japan for Sustainability”
 - Writing articles/Sustainability Reporting/Cross-cultural event
 - Collaboration with companies



Japan for Sustainability

Established : August 2002

Chief Executive : Edahiro, Tada

Director: Prof. Yamamoto, Prof. Mitsuhashi,
Lester Brown

<http://www.japanfs.org/index.html>

Mission

We share information on developments and activities originating in Japan that lead toward sustainability, with the aim of building momentum toward a sustainable path for the world.

Network

- Subscribers from 170 countries
- Website access 20,000-
- Supported by Online volunteers
- More than 250 volunteers around the world
- Diversity : vocation, age, gender, region/country
- Membership: +60 corporate, +250 individuals

Activities

1. Provides a variety of information on the environment and sustainability, from Japan to the world, via our web site and e-mail magazines.
2. Covers not only current developments but also traditional wisdom, craftsmanship and practices of day-to-day life, as well as local activities.
3. Works to develop special partnerships with people in Asia, in order to cooperate to find paths toward sustainability in this region.
4. Welcomes feedback and comments from overseas and shares them in Japan and with partners in Asia, so that we can improve efforts and activities in this region by learning from each other.
5. **Creates a vision for a sustainable Japan through discussion among various stakeholders.**

Coming 2 Lectures...

- My Goal:
 - “What is Sustainability?”
 - Grasp a big picture / explain it in your own terms.
- Game Plan:
 - Latest Thinkings - Basics
 - Workshops to develop vision and indicators
 - “Limits to Growth”

Today's Topics - Basics

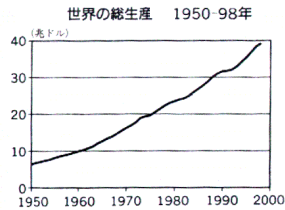
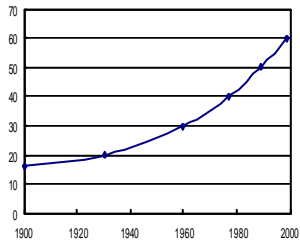
- 1) What is Sustainability?
(Background and Definitions)
- 2) How are countries responding?
(National Strategies)
- 3) How can we measure and track it?
(Indicators)

Background: Root causes of global environmental problems

Population

X

World Economy



Expansion of world economy

Population increase

Crush!

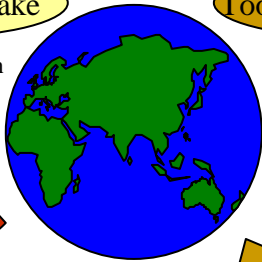
Our Mother Earth
(cannot grow!)

More and more affluent people

Root causes are...

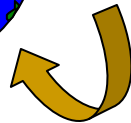
Too much intake

- Resource depletion
- Lowering aquifers
- Shrinking forests



Too much emission

- CO₂
- Wastes
- Toxic Substances
- NO_x, SO_x...



What is Sustainability?

Webster's New International Dictionary

"Sustain - to cause to continue (as in existence or a certain state, or in force or intensity); to keep up, especially without interruption diminution, flagging, etc.; to prolong."

Webster's New International Dictionary.
(Springfield, Mass.: Merriam-Webster Inc., 1986)

What is Sustainability?

Our Common Future

"Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs."

Page 8, *World Commission on Environment and Development. Our Common Future.* (Oxford, Great Britain: Oxford University Press, 1987). (Frequently referred to as the Brundtland report after Gro Harlem Brundtland, Chairman of the Commission)

What is Sustainability?

World Business Council on Sustainable Development

"Sustainable development involves the simultaneous pursuit of economic prosperity, environmental quality and social equity. Companies aiming for sustainability need to perform not against a single, financial bottom line but against the triple bottom line."

What is Sustainability?

"Over time, human and social values change. Concepts that once seemed extraordinary (e.g. emancipating slaves, enfranchising women) are now taken for granted. New concepts (e.g. responsible consumerism, environmental justice, intra- and inter-generational equity) are now coming up the curve."

<http://www.wbcsd.ch/>

What is Sustainability?

Interfaith Center on Corporate Responsibility (ICCR)

"Sustainable development...[is] the process of building equitable, productive and participatory structures to increase the economic empowerment of communities and their surrounding regions."

Interfaith Center on Corporate Responsibility

What is Sustainability?

Jerry Sturmer

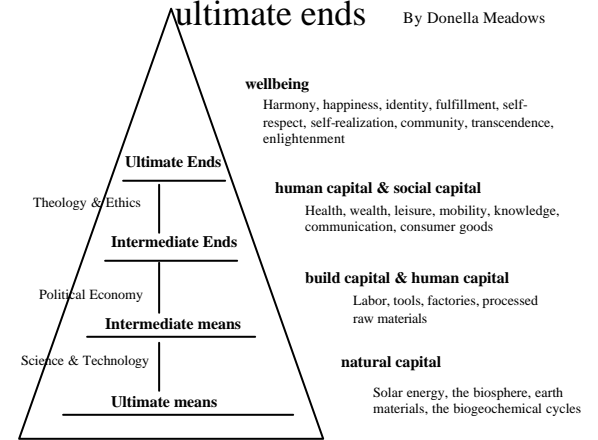
Santa Barbara South Coast Community Indicators

“Sustainability is meeting the needs of all humans, being able to do so on a finite planet for generations to come while ensuring some degree of openness and flexibility to adapt to changing circumstances.”

JSturmer@aol.com

Hierarchy from ultimate means to ultimate ends

By Donella Meadows

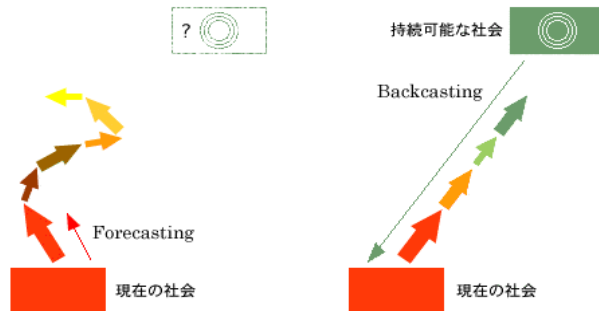


Source: <http://www.sustainabilityinstitute.org/pubs/Indicators&Information.pdf>

Now what? Vision and Backcasting

フォアキャストリング手法

バックキャストリング手法



© Takashi Yoshida

How are countries responding?

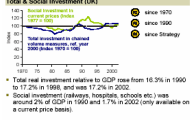
NO	事例	国名	概要
1	持続可能な開発指標	イギリス	15のヘッドライン指標の最新データをグラフでわかりやすく示している。
2	国家持続性戦略	ドイツ	世代間の公平性、生活の質、社会的まとまりの3分野で21の数値目標を設定。
3	持続可能な開発指標	スウェーデン	効率性、貢献と平等、適応性、次の世代の価値と資源」の4テーマで30の指標を設定。
4	持続可能な開発のモニタリングシステム	スイス	持続可能な開発に関する社会、経済、環境のデータベース、ドイツ語、フランス語のみ。
5	持続可能な開発指標	フィンランド	世代間の公平性、世界的責任 など8つのカテゴリーで64の指標を設定、毎年更新されている。
6	国家持続可能な開発戦略	デンマーク	主要な指標として、8つの基本原則のもと、14の指標を設定。その他、気候変動、生態系保全などの各分野で指標を設けている。
7	環境と持続可能な開発指標	カナダ	自然資本を中心とした6つの指標(気候環境、水環境、温室効果ガス、森林被覆、湿地、学業成績)を設定。
8	持続性指標	オーストラリア	持続可能な開発の国家戦略として、24の指標を設定。
9	国家持続可能な開発戦略	オーストラリア	20の基本方針のもと、48の指標が定められている。ドイツ語。
10	持続可能な開発指標	アメリカ合衆国	社会、経済、環境にわけ、それぞれ、長期的な資源と負債、超過、現状の結果、の3種類で計39の指標を設定。
11	持続可能な開発全国指標	フランス	フランス語のみ。

UK headline indicators

H1 ECONOMIC OUTPUT



H2 INVESTMENT



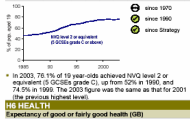
H3 EMPLOYMENT



H4 POVERTY AND SOCIAL EXCLUSION



H5 EDUCATION



H6 HEALTH



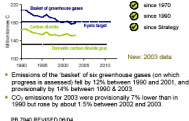
H7 HOUSING CONDITIONS



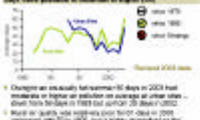
H8 CRIME



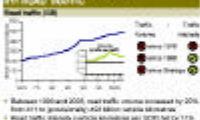
H9 CLIMATE CHANGE



H10 AIR QUALITY



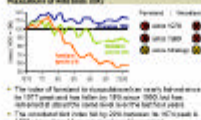
H11 ROAD SAFETY



H12 WATER QUALITY



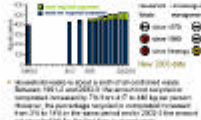
H13 THE CLIFF



H14 LEAD LEV



H15 TRAFFIC



Quality of Life Barometer



Strategy (1999)

Meeting 4 goals simultaneously

- social progress which recognises the needs of everyone;
- effective protection of the environment;
- prudent use of natural resources; and
- maintenance of high and stable levels of economic growth and employment.

Strategy (1999)

- Iterate 10 Principles
- putting people at the centre;
- taking a long term perspective;
- taking account of costs and benefits;
- creating an open and supportive economic system;
- combating poverty and social exclusion;
- respecting environmental limits;
- the precautionary principle;
- using scientific knowledge;
- transparency, information, participation and access to justice;
- making the polluter pay.

Strategy (1999)

Headline Indicators (15)

Progress towards sustainable development will be measured by a system of indicators. **Headline indicators** identify the key issues relating to **quality of life**. The Government will publish the headline indicators every year and report on action taken and proposed.

For Industry, Government, NGO, Individuals
Government cannot achieve sustainable development on its own. The Strategy identifies **action by business, local authorities, voluntary groups and all of us as individuals.**

How to measuring and track Sustainability?

NO	事例	
1	国際競争力ランキング	国際経営開発研究所 (MID)
2	NationMaster.com	
3	Environmental Sustainability Index (ESI)	コロンビア大学、エール大学
4	主要環境指標	経済協力開発機構 (OECD)
5	環境指標	国連環境計画・アジア太平洋地域事務所 (LINEP/ROAP)
6	The Wellbeing of Nation	国際自然連合 (IUCN)
7	人間開発報告書	国連開発計画
8	持続可能な開発のための指標と情報システム	ドネラ・H・メドウズ
9	Limits to Growth: The 30-Year Update	ドネラ・H・メドウズ
10	持続可能な開発指標	国連持続可能な開発委員会 (CSD)

Limits to Growth – The 30-Year Update

Key question:

Are current policies leading to a sustainable future or to collapse? What can be done to create a human economy that provides sufficiently for all?

⇒ Systems Thinking

⇒ Computer Modeling (exponential growth, feedback loops, sources & sinks, overshoot..)

⇒ 10 different scenarios

⇒ Asking for Choice

The Environmental Sustainability Index (ESI)

- World Economic Forum, The Yale Center for Environmental Law and Policy, and the Columbia University
- a measure of overall progress towards environmental sustainability.
- 5 components
- Permits cross-national comparisons of environmental progress in a systematic and quantitative fashion.
- Published in 2002, updated in 2005.

The ESI in action...

"As a conceptual framework and analytic tool, the Environmental Sustainability Index has now been introduced to the policymaking discourse in the Philippines. As Chair of the Committee on Ecology in the House of Representatives, I have called on the government to be more serious about measuring the efficacy of programs and policies -- and the ESI provides a way to benchmark our performance and identify successful strategies."

*Neric Acosta
Congressman and Chair of the Committee on Ecology
Manila, The Philippines*

Next Lecture

•What can we learn from “Limits to Growth”?

•How would you define “Sustainable Japan?”

=> Group Workshops to develop vision & indicators

<Reading>

Sustainable Development Indicator for Sweden

<http://www.scb.se/statistik/MI/MI1103/2003M00/Preface1to52.pdf>