#### **Sustainability:**

- Explain it in your own terms

Japan for Sustainability
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# Japan for Sustainability

Established: August 2002

Chief Executive: Edahiro, Tada

Director: Prof. Yamamoto, Prof, Mitsuhashi,

Lester Brown

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

#### 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

#### 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

#### 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"

#### **Activities**

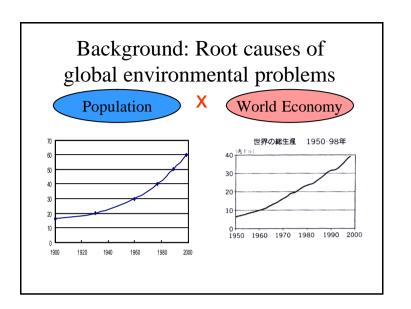
- Provides a variety of information on the environment and sustainability, from Japan to the world, via our web site and e-mail magazines.
- Covers not only current developments but also traditional wisdom, craftsmanship and practices of day-to-day life, as well as local activities.
- Works to develop special partnerships with people in Asia, in order to cooperate to find paths toward sustainability in this region.
- 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.
- Creates a vision for a sustainable Japan through discussion among various stakeholders.

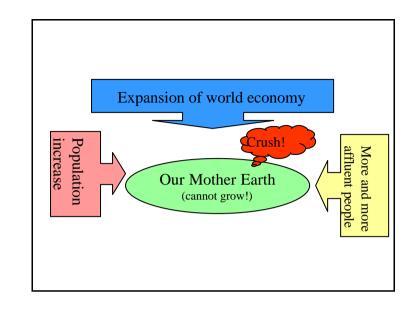
#### Today's Topics - Basics

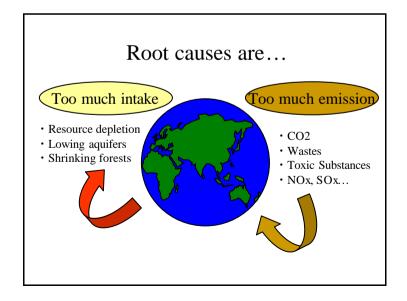
- 1) What is Sustainability?
  (Background and Definitions)
- 2) How are countries responding?
  (National Strategies)

(National Strategies)

3) How can we measure and track it? (Indicators)







# 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

#### 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? 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?

#### **Interfaith Center on Corporate Responsibility (ICCR)**

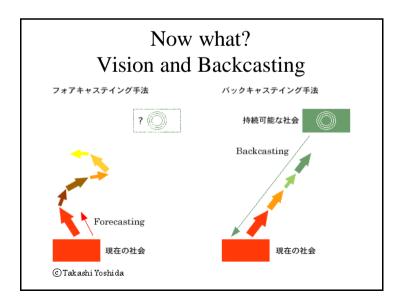
"Sustainable development...[is] the process of building equitable, productive and participatory structures to increase the economic empowerment of communities and their surrounding regions. Interfaith Center on Corporate Responsibility

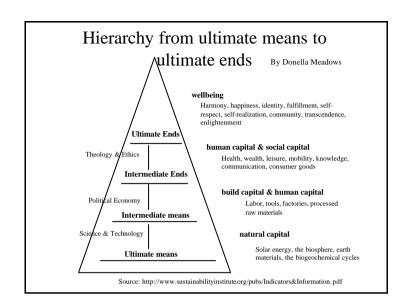
#### What is Sustainability?

#### 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





### How are countries responding?

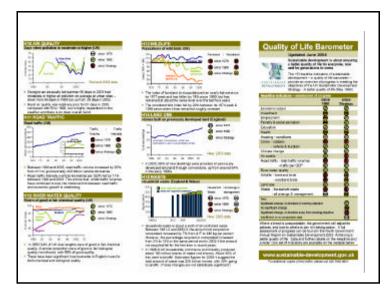
NO.	事例	国名	
			15のヘッドライン指標の最新データをグラフでわかりやすく
1	持続可能 22開発指標	イギリス	示している
			世代間の公平性」生活の質」「社会的まとまり」の 3分野で
2	国家持続性戦略	ドイツ	21の数値目標を設定
			効率性」「貢献と平等」 適応性」 次の世代の価値と資源」
3	持続可能が開発指標	スウェーデン	の 4テーマで30 の指標を設定
	持続可能 な開発の モニタリング		持続可能な開発に関する社会、経済、環境のデータベース。
4	システム	スイス	ドイツ語、フランス語のみ
			世代間の公平性」世界的責任」など8つのカテゴリーで64
5	持続可能な開発指標	フィンランド	の指標を設定。毎年更新されている。
			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
6	国家持続可能な開発戦略	デンマーク	録けている。
			自然資本を中心とした6つの指標 伏気環境、水環境、温室
7	環境と持続可能な開発指標	カナダ	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。
			20の基本方針のもと 48の指標が定められている。 ドイン
9	国家持続可能な開発戦略	オーストリア	語
			社会、経済、環境にわけ、それぞれ 長期的な資源と負債」
10	持続可能な開発指標	アメリカ合衆国	経過」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

# THE CONOMIC OUTPUT COOP for final (Inc.) \*\*TOTAL PROPERTY AND SOCIAL SOCIAL SOLUTIONS \*\*TOTAL SOCIAL SOCIAL SOCIAL SOCIAL SOCIAL SOLUTIONS \*\*TOTAL SOCIAL SOCI

#### 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)**

- Integrate 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.

# 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

# How to measuring and track Sustainability?

NO.	事例		
1	国際競争カランキング	国際経営開発研究所 (IM D)	世界の60カ国の競争カランキングを323の基準 で毎年報告している総合ランキングでは、日 は23位 2004年 )。
2	NationMaster.com		世界各国の4000を超える統計データが見られる。図で国別比較もできる。
3	Environmental Sustainability Index (ESI)	コロンピア大学、エール大学	5つの構成要素で、21の指標を設定。
4	主要環境指標	経済協力開発機構(OEC D)	気候変動、オゾン層など10の指標
	環境指標	国連環境計画・アジア太平 洋地域事務所 (UNEP/ROAP)	北東アジア、中央アジアなど地域別に環境指統設定した
	The Wellbeing of Nation  人間開発報告書	国際自然連合(IUCN) 国連開発計画	180カ国の持続可能性をランキング 人間開発指数(1人当たりの GDP、平均寿命 就学率から算出)を開発の度合いを測定する。 度として設定、毎年報告書名作成
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	パラトングループ、の報告として1998年に作 持続可能性指標のフレームワークが提案され いる。
9	Limits to Growth: The 30-Year Update	ドネラ Hメドウズ	1972年に出された「成長の限界」の改訂版。
10	性性可能 か開発性種		経済、環境、社会、制度の4つのフレームで指標を2つ

# 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."

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

#### How Sustainable is Japan?

#### 5 components

- Environmental Systems

MIXED

- Quality Air/water/biodiversity/land

- Reducing Environmental Stresses NEGATIVE

Reducing air pollution/water stress/ecosystem stress ...

Reducing Human Vulnerability

POSITIVE

POSITIVE

- Basic human sustenance/environmental health

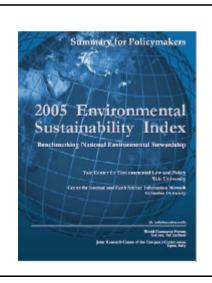
- Social and Institutional Capacity

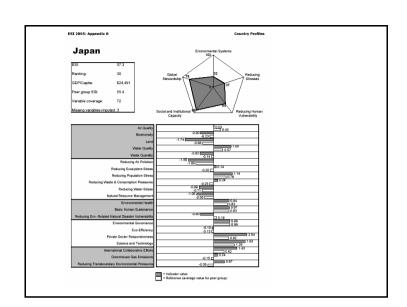
- Science/Tech/capacity for debate/governance/eco-efficiency

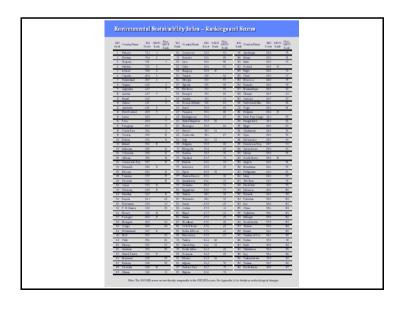
- Global Stewardship

MIXED (Big NEG on last one)

 Participation in int'l cooperative efforts/reducing greenhouse gas emissions/transboundary environmental pressures







#### Executive Summary

The 2005 Environmental Statistishiny Index (ESS) benchmarks the ability of nations to gootest the environment over the next several decades. It does so by arragating 76 data sets — tracking natural resource endowments, past and powers published levels, environmental management efforts, and a cooling capacity to improve the environmental performance—ento 21 industries of environmental performance—ento 22 industries of environmental australiability.

These indicators permit comparison across the following five fundamental components of sustainability: Environmental 3 yeterus, Environmental Stressey, Human Vulmenbility to Environmental Stressey, Societal Capacity to Respond to Environmental Chilenges, and

The issues reflected in the indicators and the underlying variables were chosen through an occurrence service of the environmental literature, assessment of available data, rigocoss analysis, and broad-based consultation with policymakers, scienties, and indicator experts.

The BSI provides a powerful environmental decisionmaking tool tracking national environmental performance and facilitating

comparative policy analysis. It enables a most data-driven and empirical approach to policymaking.

While shrothits measures of austainability remainduries, many aspects of environmental structurability can be measured on a relative basis with norths that provide a content for policy evaluations and judgments. Such companions are especially important in the new content of wurdowise directs to advance the environmentnished aspects of the Millentium Development Gode.

Higher BSI scoons suggest better convincemental stewardship. The five highest-tanking countries are Finland, Norway, Umpaya, Sweden, and Iceland—all countries that have substantial satural resource endowments, low population density, and have managed the challenges of development with scene success.

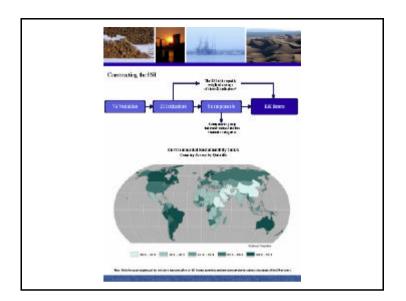
The lowest unking countries are Noeth Kossa, Iraq, Tsiwan, Turkomenistus, and Ushskistun. These countries face transacus isrues, both natural and marmade, and have not managed their policy choices well.

#### A number of core policy conclusions emerge from the ESI analysis:

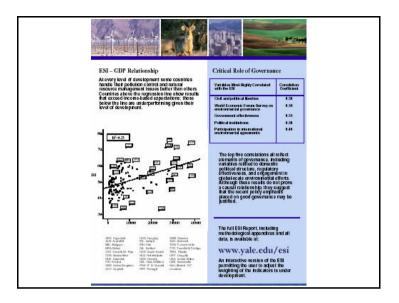
- The BSI provides a valuable tool for benchmarking environmental stewardship and permits comparative policy analysis.
- Environmental stewardship demands attention to a wide range of pollution control and natural resource management issues.
- Developing and developed countries face distinct environmental challenges the pollution possures of industrialization on one hand and the stresses of powerty and incapacity on the
- Economic success contributes to the potential of environmental success but does not guarantes it. Baviccomental stewards to depend on both policy efforts and a society's over-arching rotial, political, and economic systems.
- While it appears that no country is on a fully sustainable trajectory, at every level of development, some countries are managing their errorsemental challenges before than
- other.

  Measures of governance, including the riges of orgalision and the degree of cooperation with international policy efforts, coordine highly with overall enviscemental success. This result suggests that emphases on good governance may be partition.
- The lack of neliable data to measure performance on a number of issues and access many countries hinders attempts to move toward mose data-threen and empirical decisioninating.













#### Lessons

- 1) What is Sustainability?
- Variety of definitions
- Conditions + Values (participation, equity, wellbeing, etc.)
- 2) How are countries responding?
- -National indicators and strategies
- 3) How can we measure and track it?
- Variety of indicators
- cluster analysis

#### 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/Preface1 to52.pdf