Sustainability

- Explain it with your own terms

Japan for Sustainability/ Eco Networks
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My Brief Background

- Environmental Economics & Policies / Debate Team (UC Berkeley)
- Japan for Sustainability (Communication Platform)
- Eco Networks Co. (Sustainability Consulting Firm)
- Producing Media
  - 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

Japan for Sustainability

Established : August 2002
Chief Executive : Ms.Edahiro, Mr.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.

=> See Slide Presentation.

Network

- Subscribers from 190 countries
- Website access 50,000-
- Supported by Online volunteers
- More than 300 volunteers around the world
- Diversity：vocation, age, gender, region/country
- Membership: +70 corporate, +300 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.**

Game Plan for 4 Sessions

- My Goal:
  - What is sustainability? Explain it with your own terms.
  - Hold "World Summit on Sustainable Development" in this room, and

  you should be able to present your vision/strategies/policies for sustainability.
- Game Plan:

	Day1	Day 2	Day 3	Day 4
Lecture	What is Sustainability?	Power of Communication	Vision and Indicators	Full workshop
Workshop	Communication Breaking up into teams	World Summit - country briefing	World Summit - visions and indicators	World Summit - strategy/policy session
Prepare (Home Work)		3 Sustainability related-news	3 points for Sustainable XX in 2050	3 policies ideas in your fields

Today's Topics

1) Preparation / Communication exercise

2) What is Sustainability?
(Background and Definitions)

3) How are countries responding?
(National Strategies and indicators)

1) Preparation

1) 3-4 persons X 6 groups

2) International student for different groups

Communication First

- Why communication first?
- As …
  - An Engineer
    - Research Proposal / Budget
  - A Policy Maker
    - Different countries and interests
  - A Business Person
    - 80-90% of the time

Communication Exercise

"Date Game"

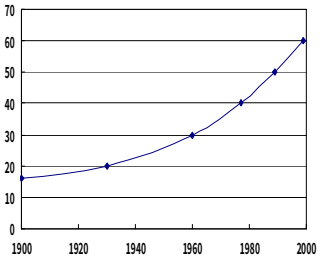
Your name/ country/ study field	News on sustainability in your country
Your "personal" eco/sustainability policy	What you would write about on JFS newsletter

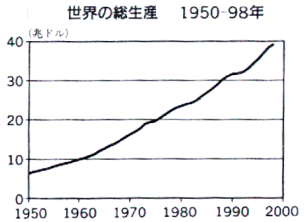
Prep: 5 minutes
Communicate: 15 minutes

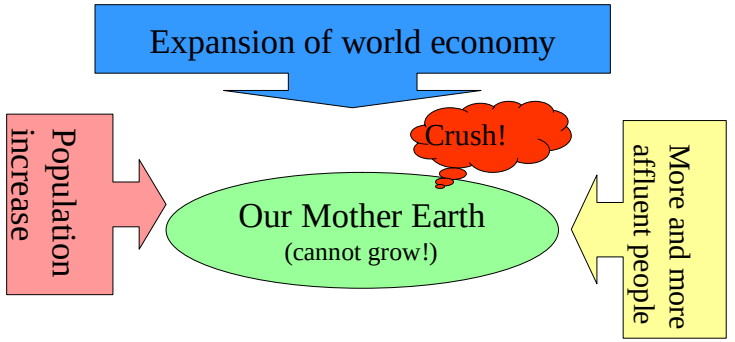
2) What is sustainability? (Background and definitions)

Background: Root causes of global environmental crisis

Population **X** World Economy



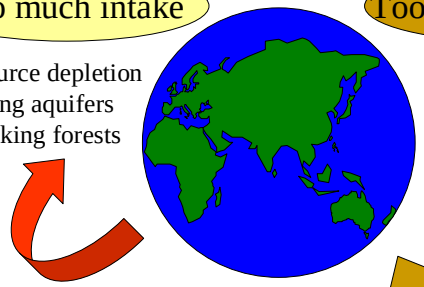




Root causes are…

Too much intake

- Resource depletion
- Lowing aquifers
- Shrinking forests



Too much emission

- CO2
- Wastes
- Toxic Substances
- NOx, SOx…

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?

World Business Council on Sustainable Development (cont.)

"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

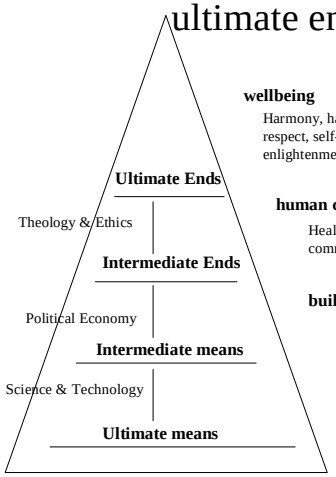
Santa Barbara South Coast Community Indicators

"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



wellbeing

Harmony, happiness, identity, fulfillment, self-respect, self-realization, community, transcendence, enlightenment

human capital & social capital

Health, wealth, leisure, mobility, knowledge, communication, consumer goods

built capital & human capital

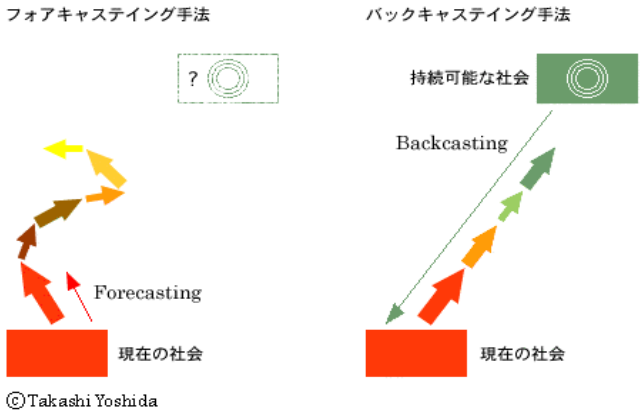
Labor, tools, factories, processed raw materials

natural capital

Solar energy, the biosphere, earth materials, the biogeochemical cycles

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

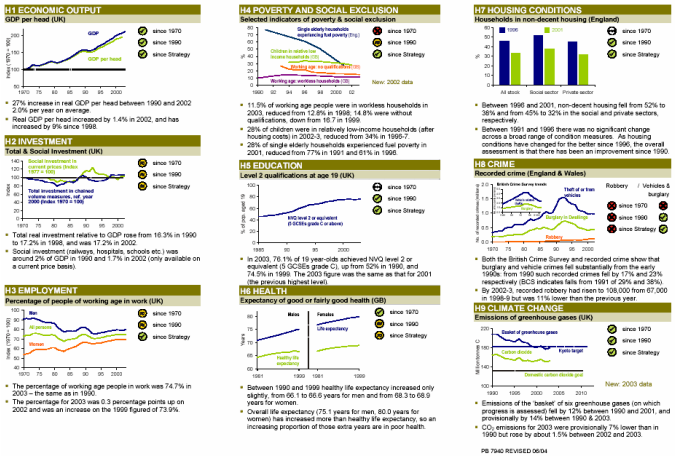
Now what?
Vision and Backcasting

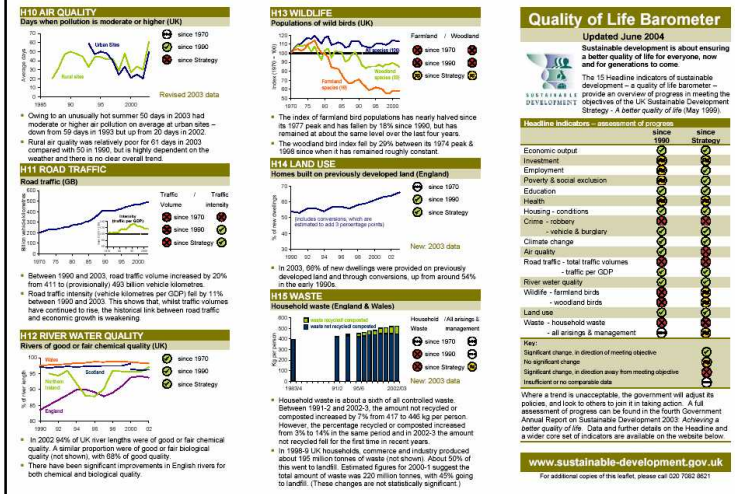


How are countries responding?

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（大気環境、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」「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

UK headline indicators





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**.

Strategy (2005)

Executive Summary

Our Strategy for sustainable development aims to enable all people throughout the world to satisfy their basic needs and enjoy a better quality of life without compromising the quality of life of future generations.

Chapter 1:

A new strategy

The Government has a new purpose and principles for sustainable development and new shared priorities agreed across the UK, including the Devolved Administrations. This strategy contains:

- a new integrated vision building on the 1999 strategy – with stronger international and societal dimensions
- five principles – with a more explicit focus on environmental limits
- four agreed priorities – sustainable consumption and production, climate change, natural resource protection and sustainable communities, and
- a new indicator set, which is more outcome focused, with commitments to look at new indicators such as on wellbeing.

Chapter 2:

Helping people make better choices

We all – governments, businesses, public sector, voluntary and community organisations, communities and families – need to make different choices if we are to achieve the vision of sustainable development.

The Government proposes a new approach to influencing behaviours based on recent research on what determines current patterns. The Government will focus on measures to enable and encourage behaviour change, measures to engage people, and ways in which the Government can lead by example. Where these will not sufficient to change entrenched habits, we will also look for ways to catalyse changes.

Key commitments include:

- a new programme of community engagement – Community Action 2020 – Together We Can – to act as a catalyst for community action helping people to get involved by providing skills training, improved access to funding and mentors
- a deliberative forum to look at what it would take to help people live more sustainable lifestyles
- piloting open and innovative ways to allow stakeholders to influence decisions about the kind of projects which would deliver the goals of this strategy
- new commitments to support education and training in sustainable development, and
- evaluations of key environmental taxes to help build a more comprehensive picture of the effectiveness of such taxes and inform further reviews, including that of the Climate Change Programme.

Germany Our Strategy for Sustainable Development

項目		指標	長期目標	1998-2003の傾向
世代間の公平性	1．資源の保存	・エネルギー生産性（GDP／kwh）	・2020年に1990年の2倍	↗
		・資源生産性（GDP／資源消費量（トン））	・2020年に1994年の2倍	↗
	2．温暖化防止	京都議定書の温室効果ガス	2008年比/2012年（6ガス） 1990年比-21% 2005年（CO2） 1990年比-25%	↗
	3．再生可能エネルギー	一次エネルギー消費・電力消費にしめる再生可能エネルギーの割合	2010年に2000年の2倍 2050年にエネルギー消費の約半分	↗
	4．土地消費面積	1日当たりの市街地・交通施設の土地利用面積（ha）	2020年に現在の129haから30haに。	↗
	5．生物多様性	選択された種の量の中央値	持続可能な状態に達するまで多様性を向上。 2015年に安定させる。	→
	6．国・地方税政債務	財政債務総額／GDP	国家予算の整理	↘
	7．将来の経済的安定のための対策	総投資率／GDP	革新的なダイナミズムの増加	↘
	8．研究開発	研究開発費／GDP	2010年にGDPの3%まで増加	↗
	9．教育と訓練	25歳までで大学を出ていない人の割合 新年度の大学に入学する人の割合	高等学校卒業の割合を2010年までに10%、2020年までに20%増加 高等教育の途中退学者の割合を2010年に9.3%、2020年に4.6%。 大学の入学者を2010年に40%	→ → →

参照：Perspectives for Germany Our Strategy for Sustainable Development Progress Report 2004

Germany Our Strategy for Sustainable Development

生活の質	10．経済繁栄	GDP／人	経済成長	↗
	11．輸送	トンキロ／GDP・人キロ／GDP	トンキロ／GDP 2020年に1999年比－20% 人キロ／GDP 2020年に1999年比－5%	↗
		貨物輸送に占める鉄道と内水輸送の割合	鉄道：2015年に25%に向上 船：2015年に14%に向上	→
	12．食糧・栄養	窒素過多	2010年までに80kgN/haまで削減	→
		全体の農地に占めるエコロジー農地の割合	2010年に20%に向上	↗
	13．大気汚染物質	CO2、NOx、アンモニア、VOC排出総量	2010年に1990年比－70%	↗
	14．健康	65歳前に死亡する人の割合	減らす	↗
		健康への満足度	高いレベルで安定させる	↗
	15．犯罪	住居での泥棒件数	2010年に現状から10%削減（件数を117,000）	↗
社会的まとまり	16．雇用	有業率（15～65歳までの人口のうちの有業者の割合）	2010年に70%に向上。	↗
	17．家族の視点	フルタイムのデイケア施設の割合	各年代で30%	→
	18．男女機会均等	男女の平均年収の違い	2015年に85%	↗
	19．外国人との連携	高校を卒業していない外国人の割合	減らす	↗
国際的責任	20．途上国協力	ODA総額／GDP	2006年に0.33%	↗
	21．市場の開放	開発途上国からの輸入	増やす	↘

参照：Perspectives for Germany Our Strategy for Sustainable Development Progress Report 2004

Japan

・21世紀環境立国戦略 （別紙参照）

国内外挙げて取り組むべき環境政策の方向を明示し、今後の世界の枠組み作りへわが国として貢献すうる上での指針として6月までに策定します。

（中央環境審議会 21世紀環境立国戦略部会）

www.env.go.jp/guide/info/21c_ens/index.html

・超長期エネルギービジョン2100 （別紙参照）

真に持続可能なエネルギー需要構造に裏打ちされた社会を実現するための鍵となるエネルギー技術について、地球的規模で将来顕在化することが懸念される資源制約、環境制約を乗り越えるために求められる技術の姿を、2100年までの超長期的視野から逆算（バックキャスト）することによって描き出しました。

（H17年度経済産業省省資源エネルギー庁委託調査）

www.iae.or.jp/research/cho06.htm

1st lecture -- Lessons

1) What is Sustainability?

- Variety of definitions

- Conditions + Values (participation, equity, wellbeing, etc.)

2) How are countries responding?

-National strategies and indicators

Day2: Workshop
World Summit – Country Briefing

<Mission>

After working as an environmental policy maker in your country, you just became a Communication Officer of Sustainable Development. In the World Summit on Sustainable Development which will be held on 2006, please present where your country stands in the movement towards sustainability, using the Johari Window framework (explained in the following slides.)

<Group work>

- 3 or 4 persons * 6 teams
- How would you communicate your country's stance towards sustainability / sustainable Development? Discuss each other and fill in the Johari Window (25 minutes).
- Present your country's stance to the other group – and vice versa. (5 minutes * 2)

Day 3: Workshop
World Summit -Vision & Indicators

<Mission>

Let's suppose the next World Summit on Sustainable Development will be held in 2007, and there each country is required to present its vision and indicators for 2050. We are just commissioned by Prime Minister to present a draft.

<Process>

- 3-4 persons * 6 teams
- Area: Energy (& global warming), food, waste, bio-diversity, resource-productivity, equity, satisfaction…
- Individual work (10 minutes) – Post It
- Group work (30 minutes) – Flip chart
- Presentation & Discussion (25 minutes)

Report

<Mission>

Let's suppose the next World Summit on Sustainable Development will be held in 2007, and there each country is required to present its vision and indicators for 2050. We are just commissioned by Prime Minister to present a draft.

Please discuss the followings;

1) Definition : what is sustainability?
2) Choose one area (e.g. energy and global warming, resources productivity and waste), and describe your vision for 2050, targets, and strategies to achieve them.