What is Sustainability?
- Vision, indicators, and policy

Manager, Japan for Sustainability

CEO, EcoNetworks
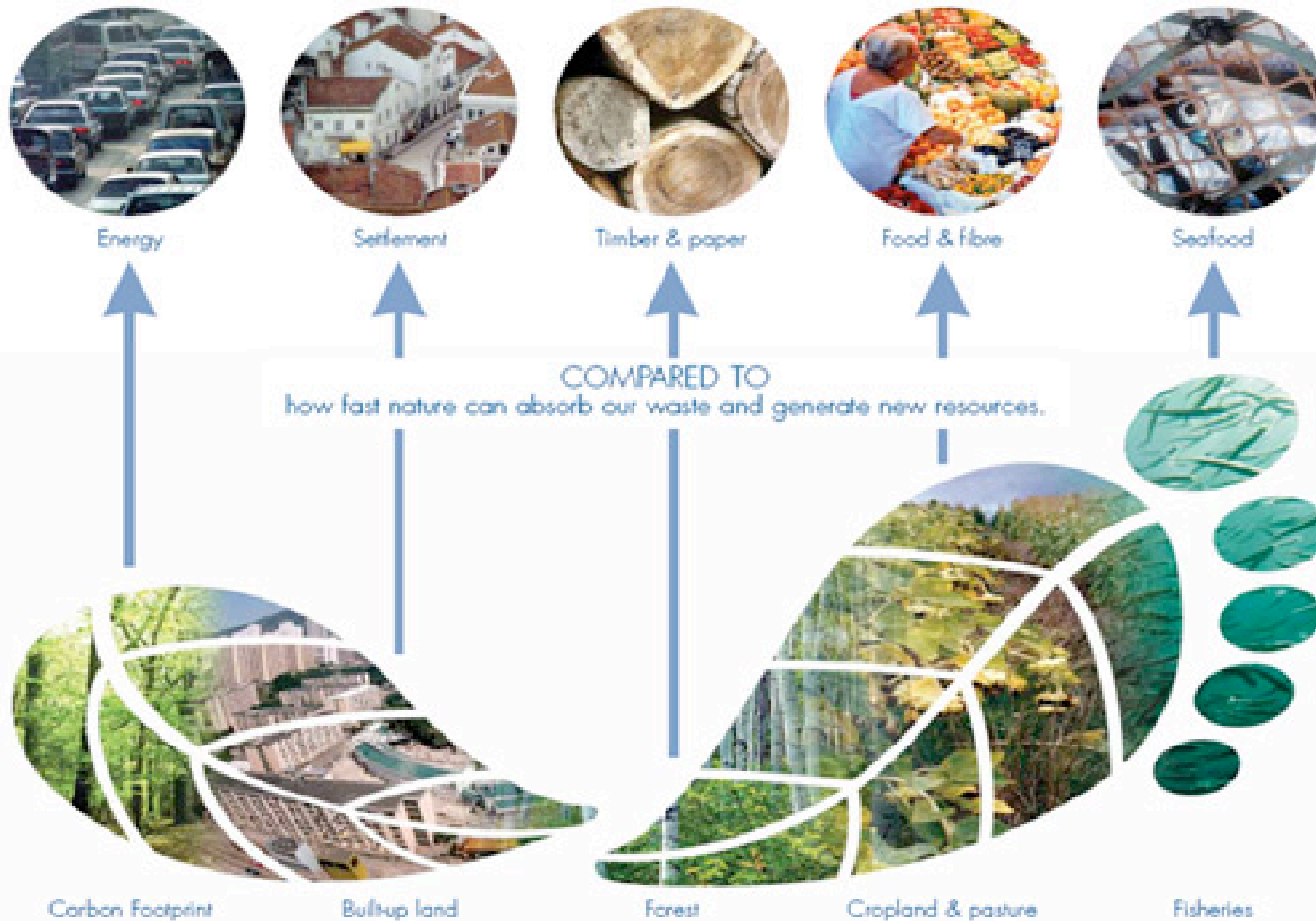
Kazunori Kobayashi

Kobayashi@econetworks.jp

The Ecological Footprint

MEASURES
how fast we consume resources and generate waste

Energy | Settlement | Timber & paper | Food & fibre | Seafood

COMPARED TO
how fast nature can absorb our waste and generate new resources.

Carbon Footprint | Built-up land | Forest | Cropland & pasture | Fisheries

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

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 (& global warming), food, waste, bio-diversity, resource-productivity, equity, satisfaction…

・ Individual work

・ Presentation & Discussion

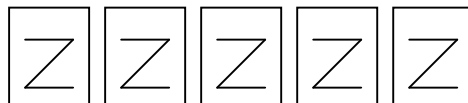# Workshop - Vision & Indicators

Presentation example

<Vision – Polestar>

- CO2 emissions will be …

- Energy mix will be…

☐☐☐☐☐

<Indicators>

- Energy consumption per capita

- % of nuclear energy for electricity

☐☐☐☐☐

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 CO2 emissions level is where …

One we achieve this vision, we will be able to …

2.   Indicator –

We recommend YY as a indicator to measure our progress toward this vision.

YY is…

It can tell us ….

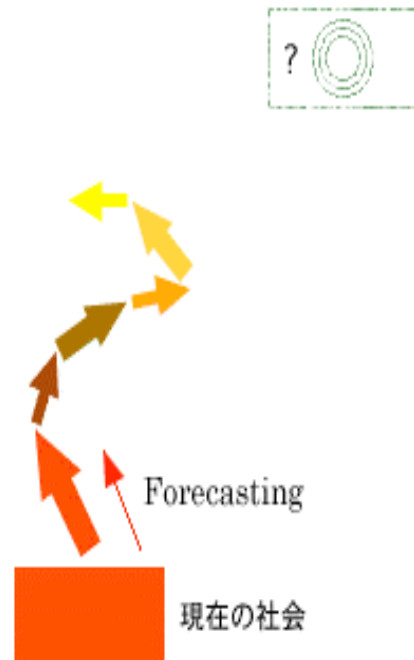The reason why we think YY is better than ZZ is that….

Other possible indicators are…
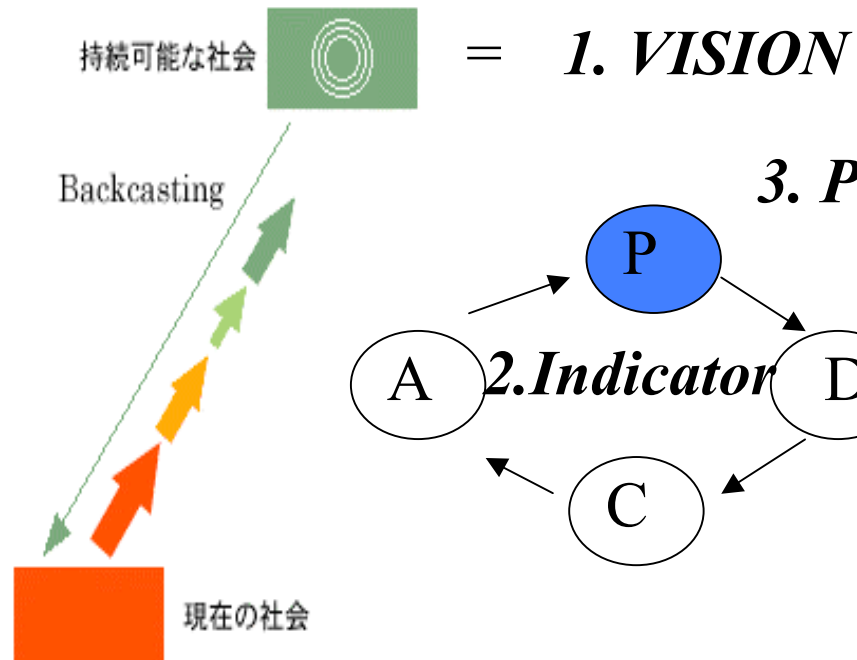
What is vision?

- Different from "forecast" / "prediction"

- "The Polestar"

- An ideal state

    – Where you want to go

- Guide us through the journey

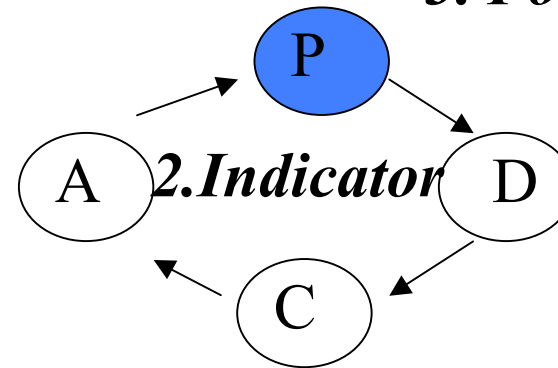- Inspire best brains

Vision, Indicator, and Policy making

フォアキャスティング手法

バックキャスティング手法

?

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"

1. Guiding Vision and Goals
 (clarity about sustainability)

2. Holistic Perspective
 (systems and subsystems)

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

4. Adequate Scope
 (temporal and spatial)

5. Practical Focus
 (clear standards, manageable tools)

6. Openness
 (transparent methods and sources)

7. Effective Communication
 (simple, and audience focused)

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

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

10. Institutional Capacity
 (support, maintenance, development)

Changing the structure -
key for sustainability policy

➢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.

Boosting growth and jobs by meeting our climate change commitments

The European Commission has today agreed on a far-reaching package of proposals that will deliver the European Council's commitments to fight climate change and promote renewable energy.

The proposals demonstrate that the targets agreed last year are technologically and economically possible and provide a unique business opportunity for thousands of European companies. These measures will dramatically increase the use of renewable energy in each country and set legally enforceable targets for governments to achieve them. All major CO_2 emitters will be given an incentive to develop clean production technologies through a thorough reform of the Emissions Trading System (ETS) that will impose an EU-wide cap on emissions.

The package seeks to deliver the European Union to reduce greenhouse gases by at least 20% and increases to 20% the share of renewable energies in the energy consumption by 2020, as agreed by EU leaders in March 2007. The emissions reduction will be increased to 30% by 2020 when a new global climate change agreement is reached.

NYC "Black Cars" Go Green

- NYC's Taxi and Limousine Commission will require the city's 10,000 black car fleet - the luxury cars that service corporate clients - to increase fuel efficiency standards to a level currently achievable only by using hybrid technology.

# MAFF Submits Proposal to Certify Products that Protect Biodiversity

- Japan's Ministry of Agriculture, Forestry and Fisheries (MAFF) submitted in July 2008 recommendations for the use of a logo to recognize sustainable practices that value biological diversity in agriculture, forestry, and fisheries.

http://www.japanfs.org/db/2232-e

China's Footprint 1961-2003

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.
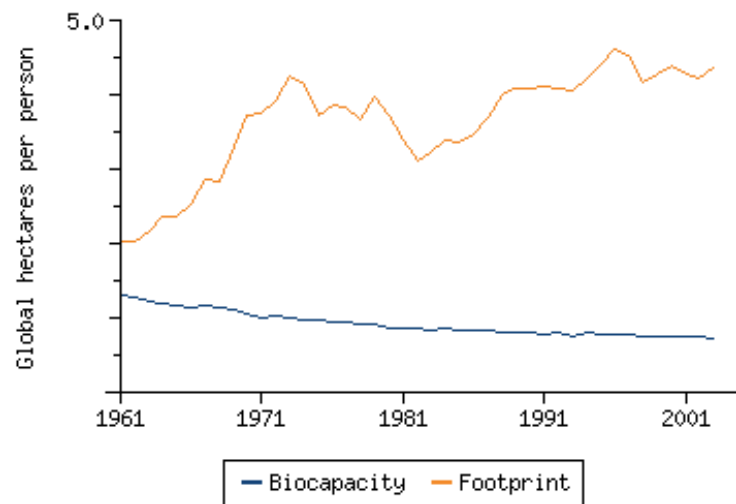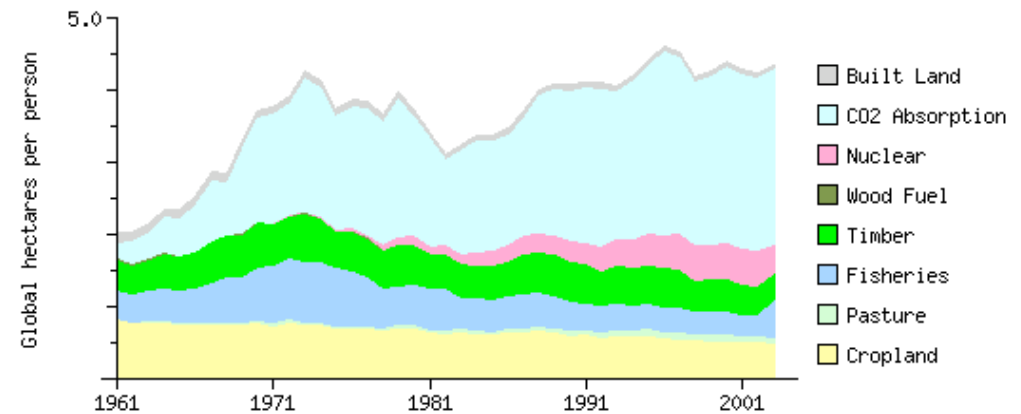
Footprint and Biocapacity
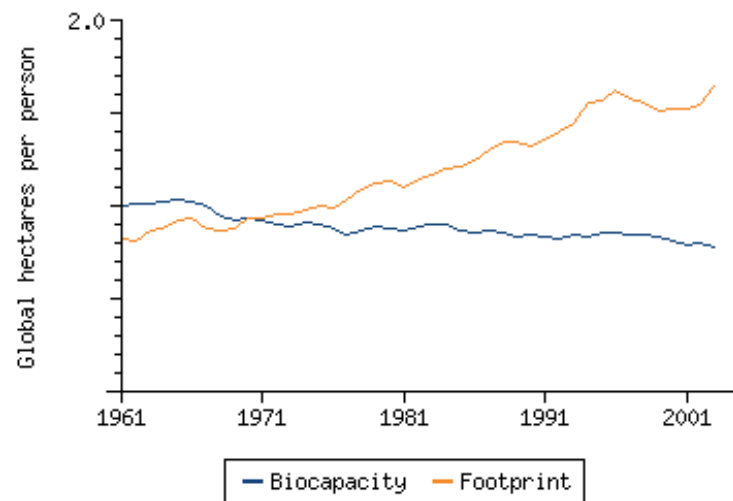
Footprint by Component
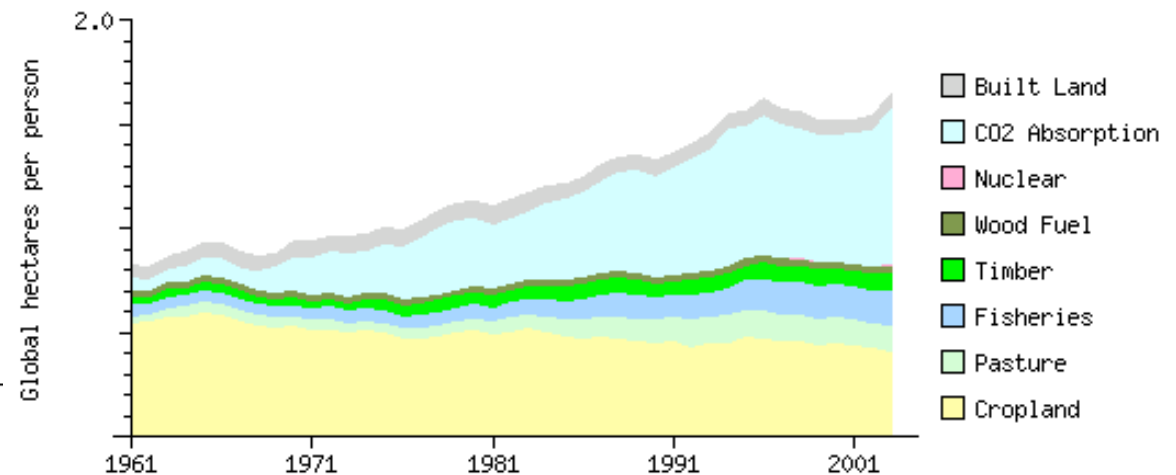
Japan's Footprint 1961-2003
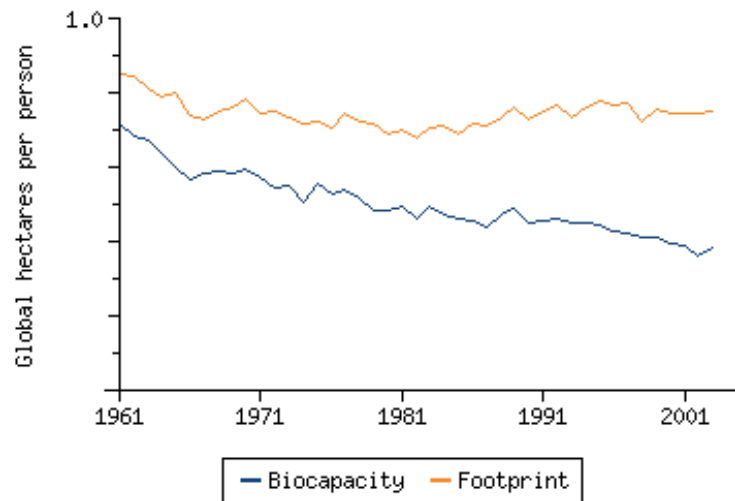
Footprint and Biocapacity

Footprint by Component

India's Footprint 1961-2003

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

JFS Sustainability Index

http://japan.visiblestrategies.com/
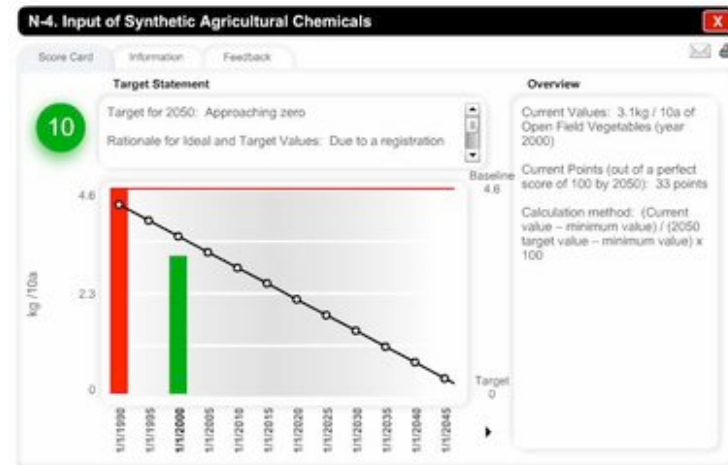
Global Communication:
a key for global environmental policies

- Environmental issues know no border.

- Different cultural/social contexts.

- Conflict of National Interests.

    (See the United States!)

•Thank you for strongly promoting sustainability with
your fine newsletter. Please email it to President Bush, who needs to be
educated on the importance of sustainability.

 -Citizen, San Francisco (U.S.A) 30 Apr 2004

⇒Can we reach out to each other?

When Communication Fails Case1:

- North – South Issue "Distrust"
  - World Summit on Sustainable Development in Johannesburg (2002)
  - North:
    - "You, the South, should reform corruption and stop illegal logging first."
  - South:
    - "You, the North, should change excessively consumptive market first."

  $\Rightarrow$ Distrust to each other leads to inaction.

When Communication Fails : Case 2

- Japan – China
  - Japan
    - "We aim for recycling-oriented society."
    - "We try to cut CO_2 emissions."
  - China
    - "We have a right to enjoy economic growth."
    - "Japan consumes more than we do."

$\Rightarrow$Efforts are almost meaningless without cooperation.

$\Rightarrow$How would you communicate?

JFS on the potential of communication

"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."

Keywords:

- Sharing feedbacks
- Improve efforts and activities

How would you respond?
Feedback at work

- Country：Indonesia
  Comment：Can you please advise if your organisation can advise any possible uses for **used golf balls**. Can they be recycled into other products? Any information would be greatly appreciated.

- => Question referred to Global Sports Alliance (NPO) http://www.gsa.or.jp/
- => Info on recycling of sports goods through Art exhibition

  http://www.g-forse.com/top/news184_e.html

How would you respond?

- I was very interested to read the extensive reuse programs in use in Japan during the Edo period. I would very much appreciate any information you could provide on how I can obtain a copy of the book referenced on your website, "The Edo Period had a Recycling Society," ("O-edo recycle jijo": published in 1994, Kodansha Publishing Company). Also, if you know of any other references, especially any published before
1988 describing **container reuse in the Edo period or the specific organization known as "Akidaru Don-ya"**, I would appreciate any guidance you can provide on obtaining such references.
- **Patent Attorney from the U.S. (Minneapolis)**
- Wed, 29 Oct 2003

How would you respond?

Country: Mexico

Affiliate: Research organization

Comment:

In Mexico there are not much material to development an work about japanese agriculture but I tried to do it. For example, I would like to read a Masanobu Fukuoka but I can not get his book. If you have some imformation about some materials of sustainability of japanese agriculture please tell me. I woul like to share with you some topics and discuss about problems of japanese agriculture and how diet is changing in japanese society today.

How would you respond?

05-06

Country : China

Comment : I am interested in the **VOC emission standards by the Environment Minsitry of Japan**. May I have more information about the new standards?

Environment Ministry Sets VOC Emission Standards

http://www.japanfs.org/db/database.cgi?cmd=dp&num=1018&dp=data_e.html

Workshop: How would you communicate ?

<Mission>

As a Communication Officer of Sustainable Development, please **present where your country stands in the movement towards sustainability**, using the Johari Window framework (explained in the following slides.)

<Group work>

- 3 persons * 2 teams (Japan, China, India, etc.)

- 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. (3 minutes * 5 teams)

Framework: The Johari Window

- Developed by Joseph Luft and Harry Ingham

- One of the most useful models describing the process of human interaction

The Johari Window

	Known to Self	Not Known to Self
Known to Others	1. OPEN	2. BLIND
Not Known to Others	3. HIDDEN	4. UNKNOWN

The Johari Window (personal level)

Eg. Kazunori Kobayashi

	Known to Self	Not Known to Self
Known to Others	1. OPEN "My name is Kazunori Kobayashi."	2. BLIND "When I get cold, I become bad-tempered."
Not Known to Others	3. HIDDEN "I like Cinnabon roll more than anybody else."	4. UNKNOWN "Maybe if I eat Cinnabon roll when I have a cold, everybody is happy."

The Johari Window (country level)

Eg. Japan (in regards to sustainability)

	Known to Self	Not Known to Self
Known to Others	1. OPEN "Environmental high-tech" "lack of resources"	2. BLIND "very materialistic" "If everybody lives like Japanese does, we need 3 planets."
Not Known to Others	3. HIDDEN "Extremely high energy efficiency" "Motta-nai spirit"	4. UNKNOWN "Maybe Edo is a model of sustainable society." "Maybe a long shoreline can be a source of energy."

The Johari Window

	Known to Self	Not Known to Self
Known to Others	1. OPEN	2. BLIND
Not Known to Others	3. HIDDEN	4. UNKNOWN

↓ Opening windows by information disclosure

→ Opening windows by feedbacks
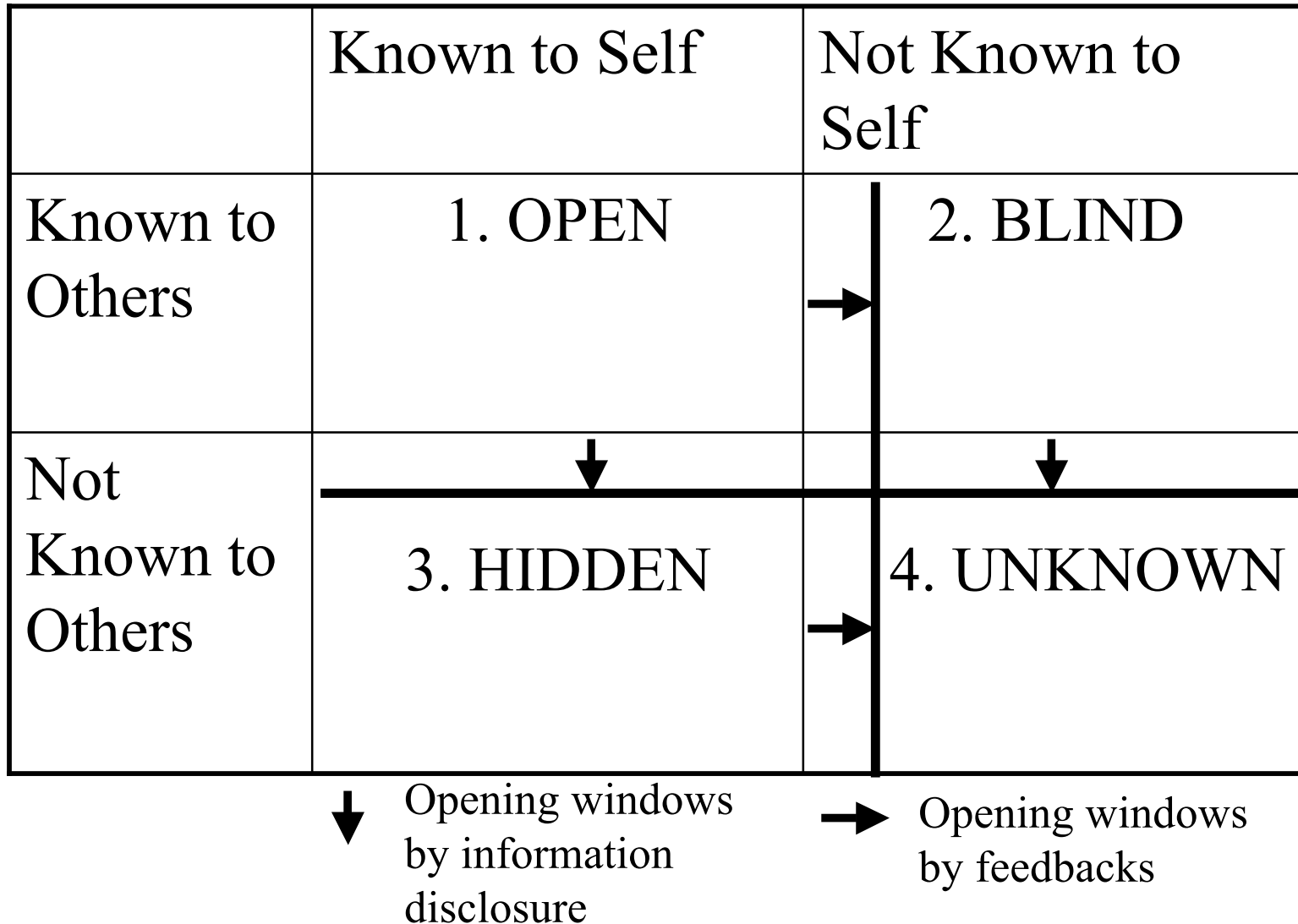
A Feedback

Country : United Arab Emirates

Affiliate : government

Comment : i wonder if i can study solar energy applications in Japan, especially in water treatment applications. I am the only Medical Environmentalist in the region, I am from Jordan and working now in United Arab Emirates for the general Health Authority as Medical Environmentalist.

Country: Darfur, Sudan

Comment: Grateful for the mail. I am the Secretary General of the Jxxxl Mxxx Charitable Organistion for Sustainable Rural Development in Darfur. Iam also currently Minister for Culture, Youth and Sports. I will use your information to promote sustainability for for peace and development.

Lessons

- "How can we reach out and understand each other?"
- "How can we make communication effective so that we can drive a movement for sustainability?"

$\Rightarrow$Opening Windows through Disclosure and Feedbacks