

Introduction to Sustainability Studies

“Sustainability History & Concept”

1st Lecture (April 19, 2011)

By

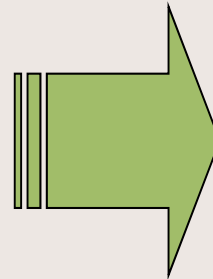
Nori Tanaka

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This lecture

- Objectives
 - Knowing about history on sustainability concept development
 - Knowing what we can sustain and we cannot sustain
 - Considering what we need for our better life (high QOL; High Quality of Life)

Increasing human impacts on the earth



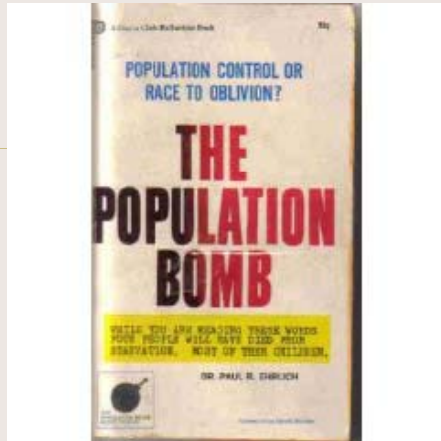
Historical roots can be found in;

- 1) Forest management (sustainable yield)
- 2) Fisheries catch management (sustainable harvests)

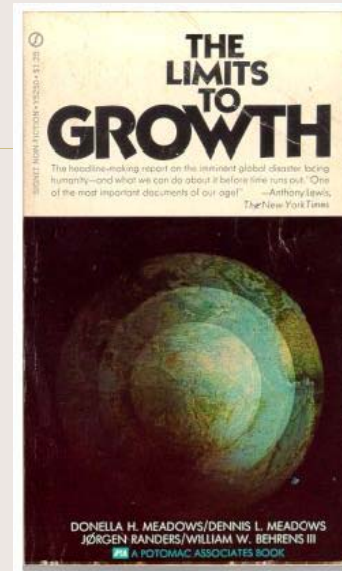
History on Sustainability concerns

- Paul R. Ehrlich (1968) “The Population Bomb”
- Club of Rome (1972, 2004) “Limit of Growth” 「成長の限界」
- Dr. Brundtland report (1987) “Our common future”
 - Meeting the needs of the present generation without compromising the ability of future generations to meet their needs
- Earth Summit (1992) Brazil Agenda21 WCED report
- COP (Conference of Parties) starts (2004)
- Kyoto Protocol (1997) International framework for env. issues
- Millennium Ecosystem Assessment (2005)

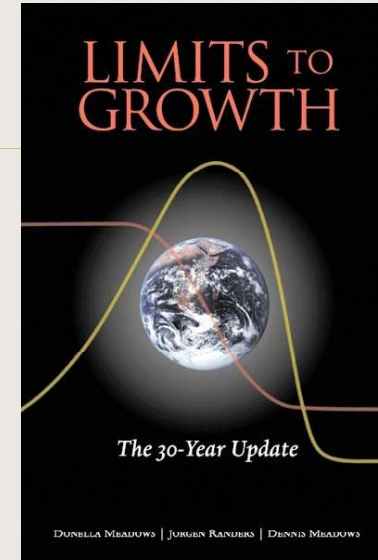
1968



1972



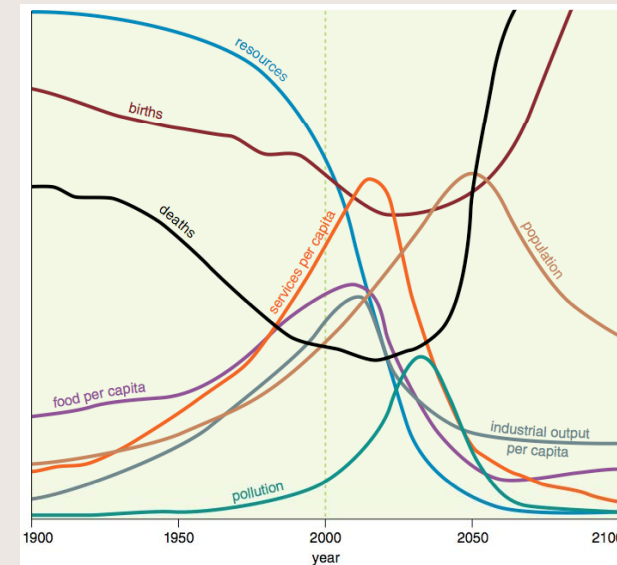
2004



Paul Ehrlich
Biologist



Drs Dennis & Donella Meadows



1987 “Our Common Future”

Dr. Brundtland WCED report

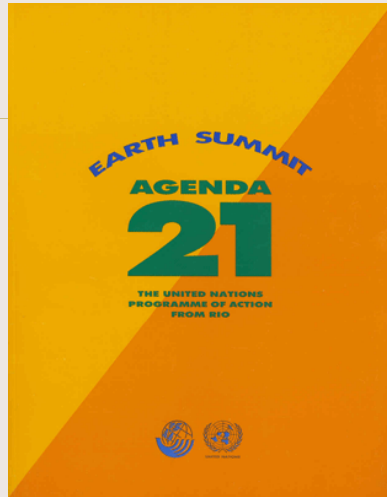


Dr. Gro Brundtland Hartem, Director-General of World Health Organisation (retired) and former Prime Minister of Norway offers her views

–Meeting the needs of the present generation without compromising the ability of future generations to meet their needs

Making clear on the constituents of sustainability development (SD)

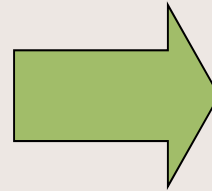
1992



Rio Agenda 21



Severn Suzuki speaking at UN Earth Summit 1992



COP meetings
(**締約国会議**)

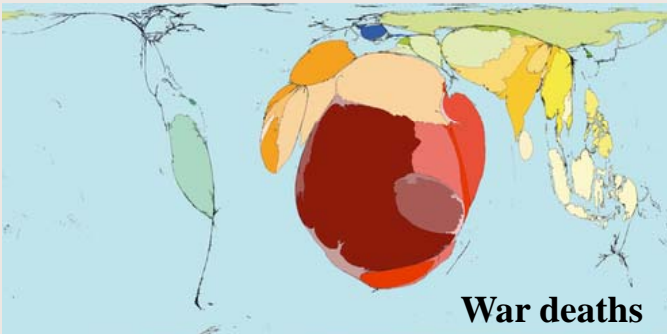
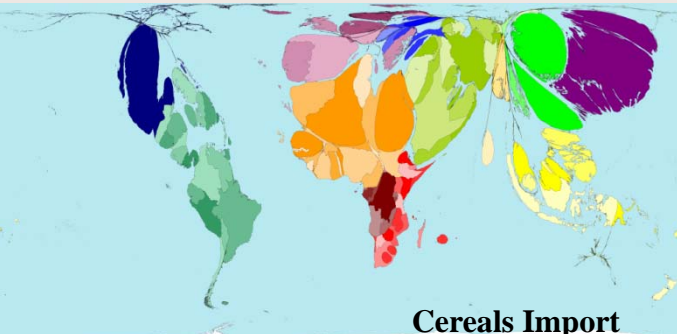
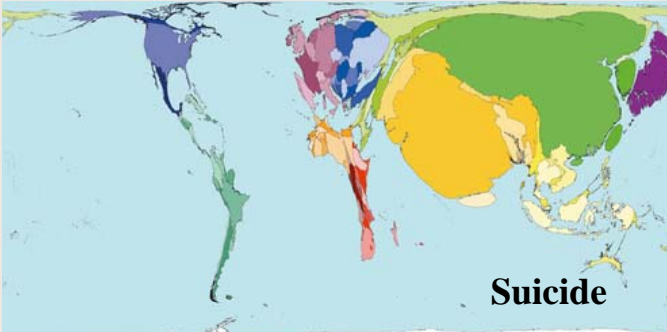
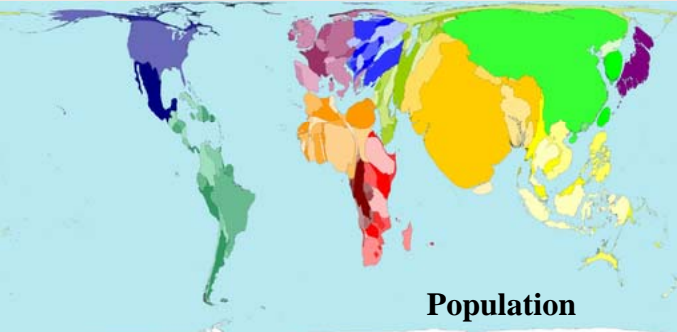
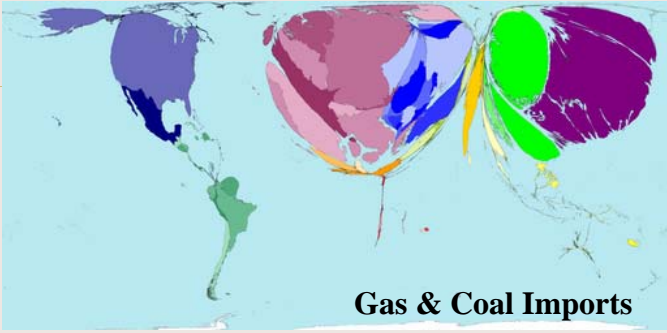
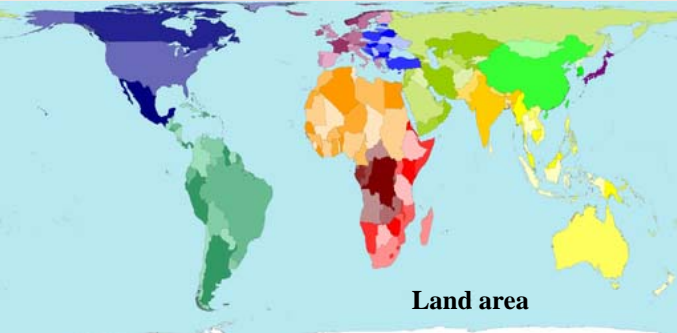


Millennium
development Goals

A spiral-bound notebook with a brown cover and a light beige page. The spiral binding is on the left side. A horizontal line is drawn across the page, just above the text. The text is centered on the page.

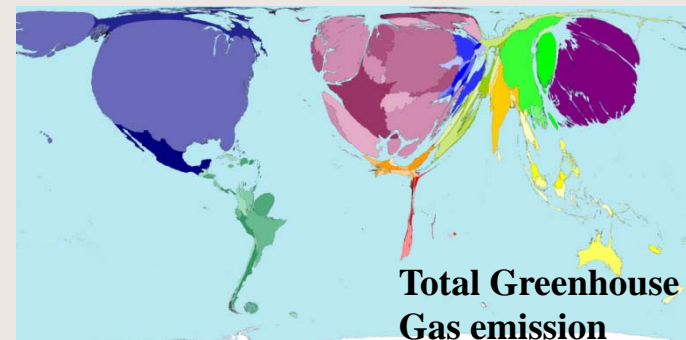
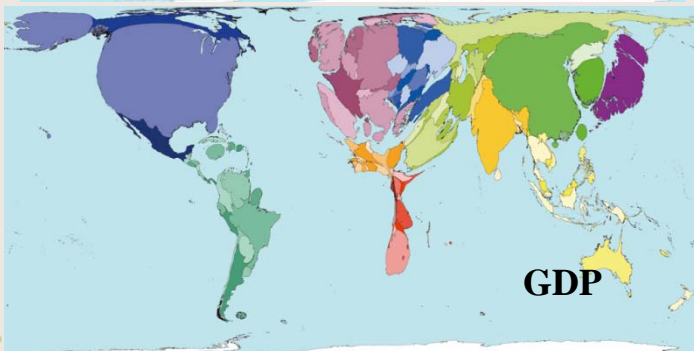
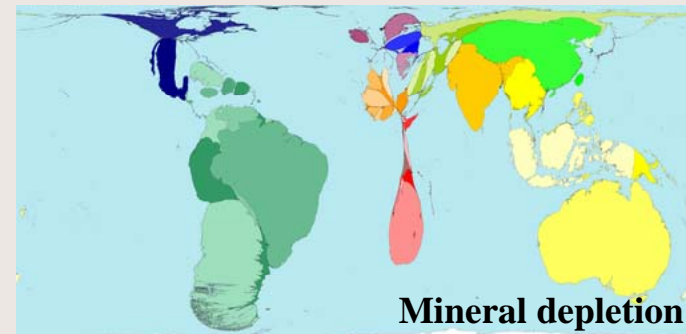
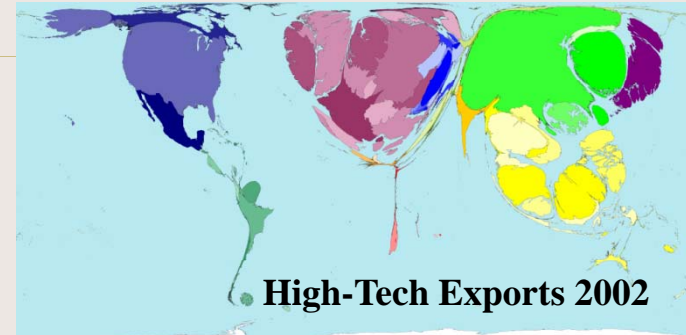
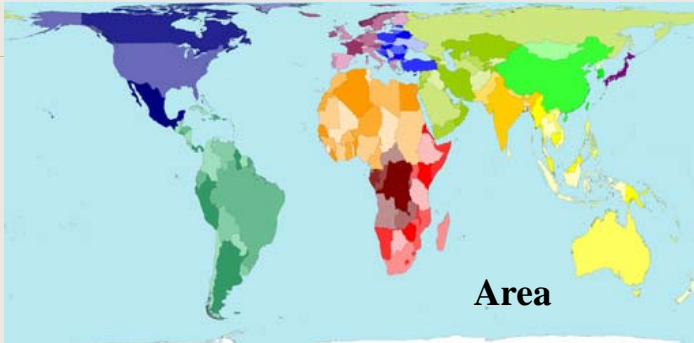
Let's look at our world in a little bit different way!

Let's see our world!

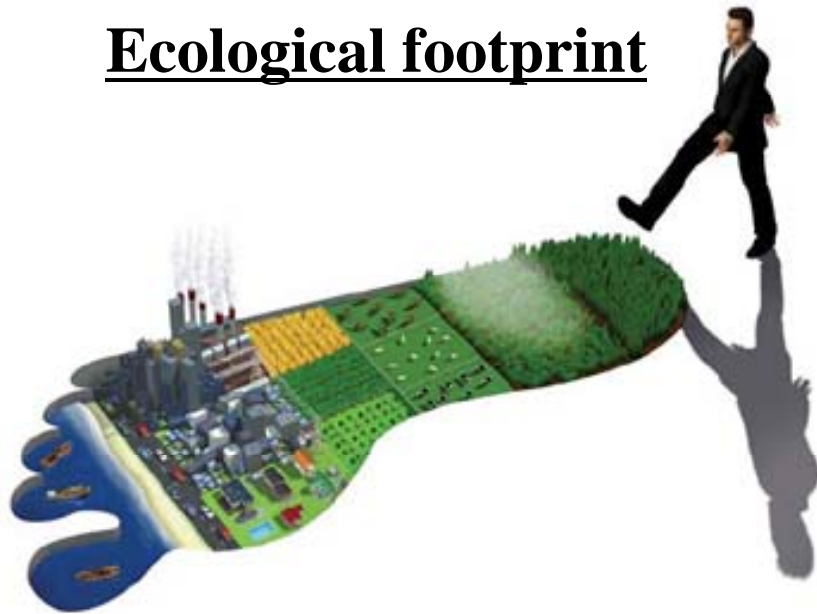


Source: <http://www.worldmapper.org/>

Let's see our world!(2)



Ecological footprint

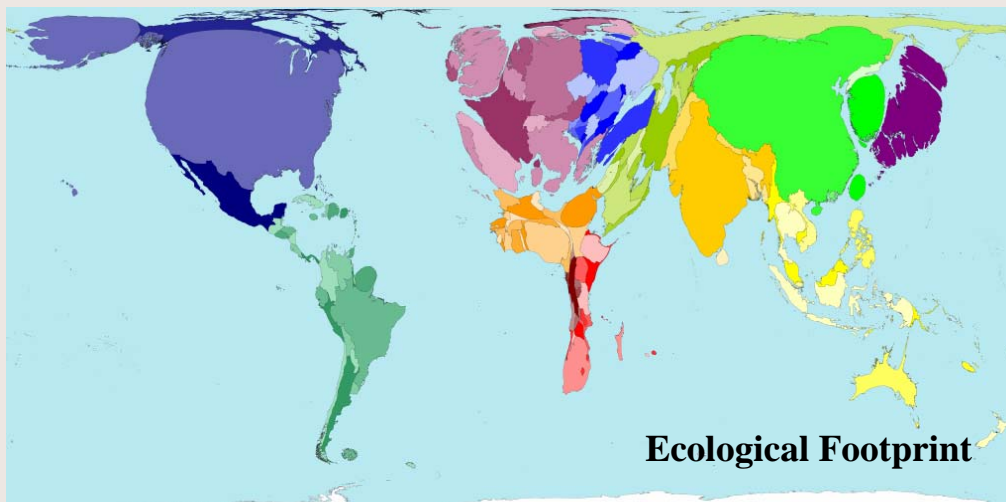


<http://www.globalfootprintnetwork.org/>

(2005)

Country	EF	Bio-capacity	Deficit
Indonesia			
Taiwan			
Japan			
USA			
World			

(In global hectares per capita)



Life Satisfaction Index (LSI)

- LSI top 10(2006)

- 1: Denmark(29)
- 2:Switzerland (22)
- 3:Austria(25)
- 4:Iceland(??)
- 5:The Bahamas(135)
- 6:Finland(33)
- 7:Sweden(20)
- 8:Bhutan(163)
- 9:Brunei(106)
- 10:Canada(16)

Adrian G. White (U. of Leicester ,sociologist) introduced this.

- Let's see ours.

- 23:USA(1)
- 64:Indonesia(19)
- 68:Taiwan(26)
- 82:China(3)
- 90:Japan(2)
- 102: S.Korea(16)

The Happy planet index

- This is an index showing how much less burden to the earth people do live with happy and healthy long-life.

$$\text{the Happy planet index} = \frac{\text{Life satisfaction} \times \text{Life expectancy}}{\text{Ecological footprint}}$$

Top 5 HPI countries

- 1: Republic of Vanuatu (GDP173)
- 2: Republic of Columbia (GDP43)
- 3: Republic of Costa Rica (GDP82)
- 4: Dominican Republic (GDP178)
- 5: Republic of Panama (GDP92)

- 23: Indonesia (GDP19)
- 84: Taiwan (GDP24)
- 95: Japan (GDP3)
- 102 S. Korea (GDP12)
- 108 England (GDP5)
- 150 USA (GDP1)
- 172 Russia (GDP9)

Warning! It is quite sensitive to EF!

Bhutan Family size: 13



3 floor house
Area 65m²

Major possessions
Radio x 1
Some silver wares

Working hrs per week
49hrs
(7hrs x 7days)

Income per capita
186 US\$

(C)Material World / ユニフォトプレス

Japan

Family size: 4



2 floor house
area 128m²

Major possessions

Radio(3) TV(1)
Telephones(1) Car(1)
Bike(1) PC(1)
Videogame(1)
Elec. piano(1)
Refrigerator(1)
Elec. oven(1)
Elec. washer(1)
Elec. dryer(1)
Air conditioner(1)
and more.....

Working hrs per week

Father 48 hrs

Mather 60hrs



Income per capita

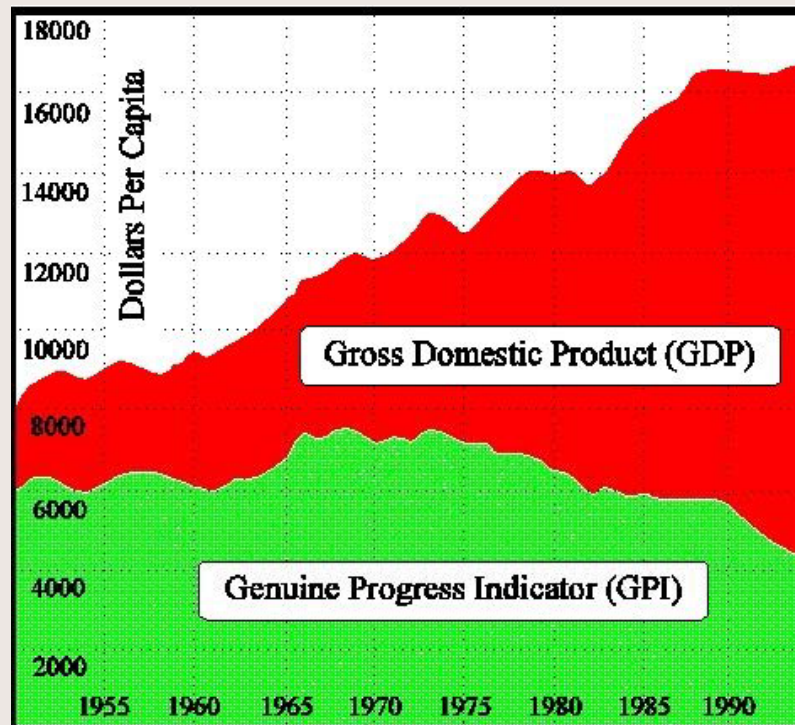
40000 US\$

14

(C)Material World / ユニフォトプレス

GPI (Genuine Progress Indicator)

- $GPI = GDP - \text{social cost} - \text{environ. cost}$



USA



My final question to you

- What do we really need for our better life?

Please discuss about it with your next persons for 3 minutes.