Lessons from Environmental Consciousness Studies in Asia

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Environmental consciousness plays key roles in various fields:

**Government**
- Laws
- Regulation Implementation
- Public finance
- Information management

**Firms**
- Observance of regulations
- Market system
- Voluntary management
- Information management

**Citizens**
- Monitoring
- Public participation
- Commons management

SEMS, SCEM, & EC (1)
In societies with high environmental consciousness,

- **Citizens** intend to:
  - demand environmentally friendly goods and services
  - monitor government and firms activities
  - participate to community planning and projects implementation, sometimes through organising NGOs

- **Firms** intend to:
  - develop pro-environmental markets
  - voluntary pro-environmental actions to be competitive
  - appropriately follow regulations

- **Governments** intend to:
  - establish pro-environmental laws and regulations
  - appropriate implementation of such laws and regulations
  - creating public financial mechanisms
  - responding to public pressure
  - responding to his/her own ethical judgement

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Why Environmental Consciousness?

**Supra-objective is “sustainable development”**

- Perhaps, “**consciousness for sustainability / sustainable development**”
- Equal attention to development and the environment
- People are not conscious (enough) about the environment

- Other priority issues include:
  - Poverty alleviation
  - Habitation, sanitation, and health
  - Food and water security/safety
  - Stable energy supply

- c.f.
  - New Ecological Paradigm (NEP): shift from technologically to primarily ecologically inspired social values (Dunlap and Van Liere)
  - Post-materialism (Inglehart et. al.)
Cognitive Structure / World View

Sustainable Development
- Economic development (GDP)
- Social development (equity)
- Environment (sustainable ecosystem)

What is your concern? (1)
- Individual
- Economy
- Environment
- Health/Sanitation
- Water
- Food
- Crime/Safety
What is your concern? (2)

- Economy
- Individual
- Environment
- Health/Sanitation
- Water
- Food
- Crime/Safety

What is your concern? (3)

- Economy
- Individual
- Environment
- Health/Sanitation
- Water
- Food
- Crime/Safety
Lesson 1

- In Asian context, environmental consciousness:
  - should not be dealt in a narrow scope (i.e. only focusing on people’s concern about the environment), but
  - should be dealt as a part of a wide range of people’s concern in relevance with sustainable development.

Most important social issues

Findings from Aoyagi-Usui et. al. (2000)

- Thailand (Bangkok: 1997)
  - environmental degradation due to economic development (23.6%); inflation (14.0%); traffic jam (13.6%)

- Philippines (Manila: 1998)
  - corruption (19.3%); unemployment (17.3%); crime (12.3%); environmental degradation (12.0%)

- China (Shanghai: 1999)
  - income difference (23.3%); environmental degradation (19.5%); education (8.6%)

Note: Research on selected group (upper middle income group in urban areas)
Most important environmental issues

Findings from Aoyagi-Usui et al. (2000)

- **Importance at a global level**
  - Bangkok: global warming (30.2%)
  - Manila: global warming (23.3%)
  - Shanghai: global warming (36.1%)

- **Importance at a national level**
  - Bangkok: air pollution (36.8%); desertification (17.4%); deforestation (16.1%)
  - Manila: air pollution (30.3%); overpopulation (27.7%); depletion of natural resources (10.3%)
  - Shanghai: overpopulation (24.3%); air pollution (23.0%); water pollution (14.1%)

- **Importance at a local level**
  - Bangkok: air pollution (16.9); desertification (16.5%); deforestation (16.1%)
  - Manila: air pollution (40.0%); noise (15.0); water pollution (8.7)
  - Shanghai: air pollution (54.0%); noise (14.4%); water pollution (10.5%)

*Note: Research on selected group (upper middle income group in urban areas)*
What is Environmental Consciousness?

- **Definition (example)**
  - Structures of environmental knowledge (beliefs, values, and concepts) that facilitate or motivate positive human behaviour toward the environment (Nickum 1999).

- **Behavioural scientific interpretation**

![Diagram of the Pro-environmental Behavioural Model](based on Hirose 1994)
Lesson 2

- Major components in conventional environmental consciousness research include:
  - perception (values, beliefs, sense of risks, etc.)
  - attitude, and
  - behaviour

- Gaps between attitude and behaviour
  - *general attitude* and *issue specific attitude*

By and large:
- *general attitude* is not likely to spontaneously promote pro-environmental behaviour
- *Issue specific* attitude is likely to promote relevant pro-environmental behaviour, though depends on self-efficacy;

Variety of Approaches to EC

- Objectives
  - pure-academic and/or applied studies aiming at:
    - understanding the nature of environmental consciousness
    - deriving some pragmatic implications
    - establishing efficient methodology for public awareness raising
    - promoting specific behaviour / behavioural changes

- Focuses
  - individuals and/or groups (e.g. general public, environmental activists, industries, government officials, policy makers)
  - perception, attitude and/or behaviour

- Methodology
  - questionnaire survey and/or interview
  - quantitative analysis and/or qualitative analysis
Types of studies on EC

- General survey on EC
  - survey including questions on perception, knowledge, attitude, behaviour
  - overview of the nature of EC by simple statistics
  - background factors through exploratory factor analysis and/or structural equation modeling (SEM)

- Study focuses on the nature of EC in certain group/culture
  - qualitative research using interview methodology

- Study on specific behaviour
  - e.g. energy saving, water saving, littering, green purchasing

- Testing educational / training effects
  - knowledge, experience, and behavioural changes

GOES Project (1)

- GOES-Project
  - Global Environmental Survey (GOES) led by Institute for Social Research (ISR) and Center for Political Studies (CPS) of University of Michigan

- Expected participation by 22 nations
- Implemented in Brazil, Canada, China, Germany, Japan, Netherlands, Philippines, and Thailand (8 countries)

GOES Project (2)

- Demographic questions
- Issues of concern (which and how much)
  - Social problems (individually, locally, nationally, globally)
    - economy, race/religious/ethnic conflicts, crime/safety, illiteracy/lack of educational opportunities, other political issues, etc.
  - Types of environmental problems
    - over population, air pollution, water pollution, noise, land erosion, depletion of natural resources, loss of biodiversity, global warming, ozone depletion, deforestation, soil contamination, waste, etc.

- Opinions and prioritisation (environment and non-environment, trade-offs)
- Perception of environmental changes/ risks
- Knowledge on environmental issues
- Responsible actors (governments, industry, citizen, etc.)
- Willingness to pay (by cash or in-kind)
- Behaviours and reasoning
  
  (cf. GOES Survey)

Study on Perceptual Aspects (1)

- Environmental Consciousness in Southeast and East Asia: Comparative Studies of Public Perceptions of Environmental Problems in Hong Kong (China), Japan, Thailand, and Vietnam


- based on Kempton et. al. (1995)
  - cultural models approach
  - a simplified representation of the world that allows an individual to interpret observations, generate new inferences, and solve problems
  - perception of human-environment relationship
  - reasons of environmental concern
  - semi-structured interviews (+ survey questionnaire)
Study on Perceptual Aspects (2)

- **Similarities in 4 countries/region**
  - perception is limited to immediate surroundings
  - relationship between people and nature is tightly intertwined
    - Human as a part of nature
    - Human as a dependent of nature
  - values:
    - anthropocentric and utilitarian reasoning for the justification of environmental protection, but almost no biocentric one
    - religious reasons are not explicitly invoked
    - aesthetic value of nature receives little attention
  - by and large, knowledge on environmental problems is not scientific

- **Difference**
  - important environmental problems varies due to their immediacy and media appearance in each country
  - “environment” is still a new term in Thai and Vietnamese

Study on Perceptual Aspects (3)

- **Extent to which people are concerned**
  - environmental concern is very widespread in the publics
  - the depth of environmental concern is often very limited in comparison with other concern day-to-day worries and making a living
  - lack of self-efficacy and lack of confidence in government capacity

- **Who cares for the environment?**
  - Hong Kong:
    - I do but none of others.
  - Vietnam:
    - Friends, families, and I do but people in business and government sectors barely care.
  - Japan and Thailand:
    - Most of all are concerned.
Lesson 3

- Nature and the environment could be addressed most effectively in the context of utilitarianism.
  - Myth of strong religious background factors in Asia...
  - Incentive mechanisms should be developed to promote pro-environmental behaviour.

- People are lack of scientific information, even on the issues of immediate concern.
  - Environmental education

- Issue specific environmental conservation campaigns in the relevance with peoples immediate concern needs to be well organised.
  - Such campaigns may further appeal to general public.
  - Such campaigns associated with possible choices of action may strengthen self-efficacy of people.

That is what we should discuss taking this opportunity!