The Interim Report of the Sustainable Consumption Project in Japan

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Abstract

Since November 2002, the project on Sustainable Consumption (SC) has been initiated in Japan, which is funded by the Japanese Ministry of Economy, Trade and Industry. It is the three-year-project ending March 2005. The aim of this project is to find new ways to reduce CO₂ emission and other environmental loads from the viewpoint of consumers. In this project, in order to collect case examples of sustainable consumption and to discuss the research framework and the practical ways to implement Sustainable Consumption, a series of workshops were organized at IIASA in Austria, in Paris, in Leeds, UK and twice in Tokyo.

“Consumer acceptance” becomes crucial while implementing sustainable consumption. In this project, a few studies were conducted to analyze consumer’s behaviors and lifestyle in Japan, and then new indicators were developed to exhibit the relationship between the consumer acceptance and the CO₂ reduction. The current status of Green Purchasing, Type III Eco-Label and Integrated Product Policy (IPP) were also reviewed to promote “sustainable consumption” in the future. These activities were reported in this paper.

Key words; Sustainable consumption, Consumers’ behavior, Life Style

1. INTRODUCTION

Since November 2002, the project on Sustainable Consumption (SC) has been initiated by the Society of Non-Traditional Technology (SNTT) led by Dr. Atsushi Inaba, the Director of the Research Center for Life Cycle Assessment, national Institute of Advanced Industrial Science and Technology. This project is funded by the Japanese Ministry of Economy, Trade and Industry within the framework of “The Subsidy Program Supporting Projects for the Development of Carbon Dioxide Fixation and Utilization Technologies.”

The aim of the entire project is to find new ways to reduce the CO₂ emission from the viewpoint of consumers. This project has two main goals: 1) to establish environmental efficiency indicators in order to evaluate both CO₂ emission reduction
and consumer acceptance, and 2) to present ways of utilizing such indicators in the environmental tools and policies (e.g. Green purchasing, Type III Eco-labeling, and Integrated Product Policy (IPP in short). To achieve these goals, the project consists of five main fields: 1) collection of examples/cases; 2) development of methods to measure/evaluate consumer acceptance; 3) calculation/evaluation of the CO2 emission reduction; 4) development of new indicators to present the relationship between the consumer acceptance and the CO2 reduction potential; and 5) the use of the indicators in Green purchasing, Type III Eco-labeling, and IPP, shown in Fig.1.

![Fig.1](image)

**Fig.1 The Sustainable Consumption Project in Japan**

### 2. RESEARCH FRAMEWORK OF SUSTAINABLE CONSUMPTION

In order to collect examples of sustainable consumption, following three workshops were organized in the fiscal year of 2003. 1) IIASA/AIST/UNEP Workshop on Life Cycle Approaches to Sustainable Consumption in Vienna, Nov.22, 2002 [1]. 2) AIST/UNEP Scientific Expert Meeting on Life Cycle based Policy Tools for Sustainable Consumption in Paris, Mar. 3-4, 2003 [2]; and 3) The First International Workshop on Sustainable Consumption in Tokyo, Mar. 19-20, 2003 [3]. As a result of these workshops, a summary

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<th>Date</th>
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<tbody>
<tr>
<td>2002 Nov.22</td>
<td>Vienna</td>
<td>50</td>
<td>Collecting Examples</td>
</tr>
<tr>
<td>2003 Mar.3-4</td>
<td>Paris</td>
<td>60</td>
<td>Political Ways</td>
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<td>2003 Mar.19-20</td>
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<td>2004 Oct.21-22</td>
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figure of the key words and the framework of sustainable consumption were presented by the project leader Dr. Inaba.

Sustainable Consumption and Production are two pillars for Sustainable Society. In order to establish a sustainable society, it is not enough for producers to provide products and services in sustainable manner. It is crucial for consumers to accept these products and services. Therefore, consumers’ acceptance is one of the most important topics in this project. Regarding Sustainable Consumption, “United Nations Guidelines for Consumer Protection,” by the United Nation’s Environmental Programme, states the following: “Responsibility for sustainable consumption is shared by all members and organizations of society, with informed consumers, Government, business, labor organizations, and consumer and environmental organizations playing particularly important roles. Informed consumers have an essential role in promoting consumption that is environmentally, economically and socially sustainable, including through the effects of their choices on producers.” It is significantly important to know the roles of each stakeholder.

In the fiscal year of 2003, two workshops were organized in this project. One was the Second International Workshop on Sustainable Consumption held on 11-12
We discussed “The Practical Ways to Sustainable Consumption” at the Second International Workshop on Sustainable Consumption in Tokyo. From the political viewpoint, there are three methods to implement sustainable consumption: restriction/regulation, education and voluntary actions of consumers. The former two implementation schemes have been relatively discussed previously. In this project, practical ways to promote the last one must be discussed, which might be independent of the political instruments that were previously experienced and deeply depend on awareness of consumers, although the governmental supports were needed. Fig.3 shows the target audience of the sustainable consumption in the relationship with the political instruments, which were discussed in the second International workshop in December in Tokyo. We have to find the practical ways to up the implementation on the voluntary actions of the people.

We discussed also the roles of many stakeholders to promote sustainable consumption in the second Tokyo workshop. As the results, some missing keywords were added into the research framework, shown in the fig.3. “Community” is one of the added keywords, which might be important to consider the practical ways for sustainable consumption. It was pointed out that the old types of rural communities were still alive in the developing countries. In other hand, the new types of cyber communities are being established in the internet circumstance, in which the people having the same type of life style image on sustainable consumption are joined and they are exchanging information keeping their society on their sustainable image. It might have strong power to distribute sustainable lifestyle and to promote sustainable consumption as a result.

After Tokyo workshop in December, the workshop at University of Leeds, UK was organized on 5-6 March, 2004 by Dr. K.Hubacek. The aim of the workshop was to discuss about “Driving Forces and Barriers” for Sustainable Consumption,
which outcome will be addressed in this workshop, the Third International Workshop on Sustainable Consumption in Tokyo on October 22-23, 2004.

Fig.4 Key Words added in the Tokyo Workshop, December 2003

Research Framework on Sustainable Consumption/Production(2)

3. HIGHLIGHTS OF THE STUDIES IN THE FISCAL YEAR OF 2003

To create voluntary actions of consumers for Sustainable Consumption, consumers’ behavior, lifestyle and its background must be analyzed. And then, as one of the targets of the project, the indicators must be developed, which are shown to consumers and used to promote the change of consumption patterns. In the fiscal year of 2003, the following studies could be highlighted in the project.

<Consumers’ Behavior/Lifestyle>
# “Social acceptability of ecological lifestyle” by H.Yamana/Institute for the Arts
# “A Method of Case-based Evaluation of Consumer Acceptance” by S.Toyoda/MRI
# “Quantitative Evaluation of Social Acceptability of Products and Services” by T.Ozawa/AIST

<Development/Use of Indicators>
# “Evaluation of CO2 Efficiency for Product Level” by K.Tahara/AIST
# “Type 3 Environmental Declaration” by C. Nakaniwa/JEMAI
# “Development of Products’ Environmental Evaluation Method and its acceptability to consumers” by H.Sato/GPN
The project had international collaborators as follows.

# “Minimizing CO2-emissions per unit of happiness” by P.Hofstetter/BAO
# “Impacts of consumption on lifestyles and well-being in the supply chain”
  by G.Norris/Sylvatica and Harvard School of Public Health
# “Methods for evaluating sustainable consumption initiatives”
  by K. Hubacek./University of Leeds
# “Indicators for Triple BottomLine Innovation Management”
  by M.Kuhndt /Wuppertal Institute for Climate, Environment, and Energy
# “From ownership to service-based lifestyle :the case of power tools”
  by O.Mont/ Lund University

One of the additional highlights of the fiscal year of 2003 was the establishment of the working group of Sustainable Consumption in Japan. The project raised participants of the working group and had organized four meetings in series by the end of March. Every meeting drew some 40 participants and certain topics, such as “how consumer can accept ecological way of behavior,” and “what is the persuasive sustainable indicator” are enthusiastically discussed led by Professor Nakahara of Musashi Institute of Technology and Professor Washida of Toyohashi Sozo Collage as co-chairs. This activity must become an incubator for future research projects concerning Sustainable Consumption.

4. HIGHLIGHTS OF THE ON-GOING STUDIES IN THE FISCAL YEAR OF 2004

The studies of this project in 2003 have been on-going also in the fiscal year of 2004, which progresses will be presented in this workshop and will be completed by the end of March, 2005.

In this year we are organizing the small working group to discuss sustainable consumption of food, which are chaired by Professor Toshio Kobayashi of Soka University.

5. FUTURE VISION AND CONCLUSION

Since the start of the project, in Japan, some researchers and consumers seem to have gradually realized the concept of Sustainable Consumption to be crucial and have begun enthusiastic discussions about it. Those are probably the most important outcome of the project.

This year is the last year of the project period. The project must be completed by the end of March, 2005. We have to develop new indicators involving consumers’ acceptance and to find practical ways to use those indicators.

Although “Sustainable Consumption” is very broad concept, in this project,
we have found almost the research framework and future research tasks at least. It might be useful to go to the next research step. In addition, it is crucial to look at a wide range of fields, such as technology, science, social studies, physiology, economy and ethics. Collaborations and partnerships within each stakeholder are the most important.

REFERENCES
[1] IIASA workshop; http://www.iiasa.ac.at/cgi-bin/pubsrch?IR02073