

OECD Fellowship Summary Report

1. Cover page

Takashi Hayashi

**Compiling an environmental accounting to calculate sustainability indicators for
bioenergy**

Host institution: Wageningen University, the Netherlands

Supervisor: Prof. Ekko C. van Ierland

Dates: from 30/04/2012 to 23/07/2012

This report can be posted on the CRP website.

2. Relevance

To the CRP objectives:

The work is relevant to CRP's first objective in terms of enlarging the research network, and provides scientific knowledge and information to Global Bioenergy Partnership (GBEP) activities.

To the theme and to agricultural and food policy:

Bioenergy is becoming more and more important in the agricultural sector because recently a larger share of agri-products is being distributed to the feedstocks of bioenergy. Our proposed work can provide a very practical and useful tool for future policy decisions to promote sustainable bioenergy and agriculture.

3. Objectives

The purpose of this proposed work is to develop a macro environmental accounting system to help to assess the GBEP sustainability indicator for bioenergy. However, in the course of discussions with my supervisor, we have concluded that we need to clarify the definition of sustainability in the context of the GBEP indicators, and to develop an aggregation method of assessment results of individual indicators at the first step of collaboration. Although these are not on the initial research plan, these are fundamental issues of our collaboration and will provide the same contribution to agriculture, the CRP theme and agricultural policies as the initial plan.

4. Major achievements

Contribution to the GBEP activities

The definition of sustainability has not discussed thoroughly in the course of developing the GBEP indicators. Also, developing an aggregation tool of the results helps policymakers to assess their own bioenergy. Therefore, these works largely contribute to the GBEP activities which I have been engaged in.

Research networking

During the fellowship, my supervisor kindly introduced me a researcher in the Dutch Central Bureau of Statistics (CBS) who is engaging in developing sustainable indicators for the

Netherlands and EU. I visited him and discussed the current movement of developing the sustainable indicators in EU countries as well as in the Netherland. Additionally, my colleague in the Dutch Ministry of Infrastructure and the Environment also introduced me a researcher who implemented the Dutch pilot assessment of the GBEP indicators, and discussed the results with her. These enlarged research networks have brought me the wide range of new ideas and the latest research trends.

Re-learning of paper writing

During the fellowship, I was able to discuss my paper with the supervisor and other members several times. They provided me some useful comments and suggestions from the academic point of view. As these academic discussions are not made sufficiently in my original affiliation, I could re-learn how to write an academic paper after more than ten years interval since my graduate period.

5. Follow-up

The results of the work in my fellowship period will be elaborated to the paper. Although some data availability problem still remains, the most of components of the paper have already concreted. The paper will be submitted to a related journal within 2012 and will be presented at an international conference such as the International Society for Ecological Economics (ISEE), or the European Association of Environment and Resource Economics (EAERE). Furthermore, the results will be reported at the GPEP meeting to be held in 2013. I anticipate future collaborations with my host institute in accordance with the research plans, and finally compile an environmental accounting for the GBEP indicators.

6. Satisfaction

I am very grateful to OECD for this fellowship and for enabling all the aforementioned work. I am sure the fellowship has helped to significantly forward my future research. I believe the research network which was enlarged by the fellowship will also increase the opportunities of collaborations. In addition, I am very grateful to my supervisor: Prof. Ekko C. van Ierland for providing me the opportunity to collaborate.

Practical problems

After arriving at Wageningen, I found Wageningen had very limited housing supply particularly for short stay like CRP fellowship. Very fortunately, I could find an apartment prior to my arrival thanks to the efforts of staffs in the university. But I think future applicants may face a housing problem. Another problem which I faced was payment. As my stay was less than 90 days, I could not open my bank account in the Netherlands. However, a credit card issued in Japan was not accepted in most shops in Wageningen and even in railway stations, and I had to pay by cash there. Anyway, these problems were minor for me, and I could spend excellent time in Wageningen.

7. Advertising the Co-operative Research Programme

It was mid-May when I learned about the OECD program from a colleague. But, to meet the deadline of submission, the beginning of September, I was struggling to find a host institute to obtain an invitation letter and to elaborate a research plan during summer holiday period. I think the notification should be much earlier and the deadline should be much later for instance, mid September to open CRP to more researchers.