Preface

Toward Appropriate International Recycling

This collection of papers is interim report of the research project "Economic Integration and Recycling in Asia" organized in Institute of Developing Economies. The project started from April 2010 and will end in March 2012.

Institute of Developing Economies has been published two reports related on recycling. The first one is Kojima(ed.) *International Trade of Recyclable Resources in Asia*, which was published in 2005. The second one is Kojima(ed.) *Promoting 3Rs in Developing Countries – Lessons from the Japanese Experience*; which was published in 2008. Both reports can be downloaded from the following website of IDE. http://www.ide.go.jp/English/Publish/Download/Spot/index.html

After we published those reports, the world experienced economic recession, triggered by financial crisis in USA. The economic recession also has impact on the international recycling and recycling in Asian countries. China, the major importer of various recyclable waste such as plastics, paper and copper, reduces the volume of import significantly in the period from November 2008 to February 2009. The Chinese import price was also dropped dramatically. The lower volume of import and recyclable waste price has affected collectors of recyclable waste across the region. But China also recovered from the economic recession earlier than Japan, US and EU. Recyclable waste import also increased after spring of 2009.

The resource price also has increased after economic recession. The hike of resource price has positive impact on recycling activities. Recycling business generates more benefit, under high resource price.

On the other hand, various recycling activities in Asia causes pollution problem. Extracting gold from printed circuit board without environmentally sound technology may cause heavy metal contamination. Recycling of waste lead acid battery without pollution control is also observed in various Asian countries. Some of internationally traded wastes are considered to be destined for recycling facilities without pollution control.

To prevent pollution from waste recycling, and to promote effective use of recyclable waste in each country and in the region, we should have adequate policy measures including trade regulation on recyclable waste.

We hope the papers in this report provide basic information on the argument of

international recycling and recycling policy in Asia.

Michikazu KOJIMA March, 2011

Contents

Preface	i
Contents	iii
Contributors	v
Chapter 1 Issues Relating to the International Trade of Secondhand Goods, Recyclable Waste Hazardous Waste Michikazu Kojima	
Chapter 2 International Trade of Recyclables in Asia: Is Cross-border Recycling Sustainable? Etsuyo Michida	. 9
Chapter 3 Recyclable waste and goods trade of mainland China Aya Yoshida	29
Chapter 4 Import and Export of Waste in Korea: Regulation and Actual Practice Chung, Sungwoo	45
Chapter 5 Review of the Waste Management System in the Philippines: Initiatives to Pro Waste Segregation and Recycling through Good Governance	
Vella ATIENZA	65

Chapter 6

Impact of Raw Material Import Duty Reduction System on Promotion of International Waste Trading

So Sasaki 99

Chapter 7

From Shipbreaking to Ship Recycling: the Relocation of Recycling Sites and the Expanding International Approach

Tadayoshi Terao 113

Chapter 8

Transboundary Movement of Hazardous Waste: Lessons from uncovered cases

Michikazu Kojima, Aya Yoshida, So Sasaki, and Chung Sun Woo 129

Contributors

Michikazu Kojima

Senior Research Fellow, Environmental and natural resource studies group, inter-disciplinary studies center, Institute of Developing Economies

Etsuyo Michida

Research Fellow, Environmental and natural resource studies group, inter-disciplinary studies center, Institute of Developing Economies

Aya Yoshida

Researcher, Research Center for Material Cycles and Waste Management National Institute for Environmental Studies (NIES)

Chung, Sungwoo

Senior researcher (Embassy of the Republic of Korea, JAPAN)

Vella Atienza

Research Fellow, Environmental and natural resource studies group, inter-disciplinary studies center, Institute of Developing Economies

So Sasaki

Senior Analyst, Environmental Policy Consulting Dept.Mitsubishi UFJ Research and Consulting Co., Ltd.

Tadayoshi Terao

Senior Research Fellow, Environmental and natural resource studies group, inter-disciplinary studies center, Institute of Developing Economies