

Automotive Recyclers International Meeting in Tokyo, 2007

< Forum3 >

“Asian Actual Affairs of ELV Disposal and Research for Trade System of Recycled Resources”

Chairman: Mr. Shun-ichi TERANISHI

Professor, Graduates School of Economics,
Hitotsubashi University

Keynote speaker: Mr. Michikazu KOJIMA

Associate senior research fellow,
Institute of Developing Economies,
Japan External Trade Organization (JETRO)

14:00 ~ 17:00, 17 June 2007 (Sun.)

Main Hall, 7th Flor

National Museum of Emerging Science and Innovation

Japan Automotive Recyclers Association
JARA

Preface

Shun-ichi TERANISHI

In Japan, since the latter half of 1990s, a series of laws related to waste disposal and resource cycling have been enacted, and also the Basic Law for Establishing the Recycling-based Society was enacted in 2000.

However these laws are limited by domestic control of resource cycling, while some of wastes and recyclable resources are moved abroad, especially to Asian region either in legal and illegal ways.

In this Forum 3, we would like to discuss about "International Recycling" and its system design in focussing of automobile recycling.

Keynote Speech

The Institutional Design for Automobile Recycling

Michikazu KOJIMA

Summary

Concern about automobile recycling is increasing in Asia. The law about automobile recycling in addition to e-waste was formulated in South Korea in 2007. In Canada, the measures, which intend to make environment sound automobile recycling, such as a "Disposed Automobile Recovery Management Method" in 2001, is issued by the government.

On the other hand, concern about automobile recycling in many foreign countries is increasing even in Japan. Concern is put on smaller amount of the number of recycled automobile in accordance with Automobile Recycling Law than expectation, due to the increase of export of used car. Others are interested in whether recycling is performed proper or not in importing countries.

This paper reviews the automobile recycling in developing countries and considers the relation between automobile recycling and international trade. International aspect for institutional design for automobile recycling consists of trade regulation of used automobile and its parts, and arrangements related to exports of used car in domestic recycling system.

In Section 1, the problem in the automobile recycling in developing countries is surveyed. In most developing countries, there is market-driven recycling of automobile industry. But the process of recycling is still low-tech, especially pollution control measures are not sufficient. In addition, automobile is discarded as it is, in remote areas far from industrial center such as pacific islands and Mongolia. Section 2 discusses the relation between trade restrictions and automobile recycling. Trade restriction to older used automobile can be justified from environmental concern. Section 3 discusses the design of financial arrangements of automobile recycling, in relation with international trade of used car. Technical cooperation, which is funded from first user contribution for proper recycling in developed countries, to developing countries is proposed.

To make appropriate policies, it is the starting point to know the actual situation and problem correctly.

Flow of the End-of-life Vehicles in Japan: Did One Million Vehicles "Disappear"?

Research on Environmental Disruption (Kankyo To Kouzai), Vol.36, No.4, 2007, pp. 24-30 (in Japanese)

Arata ABE

Abstract

This paper reconsidered the number and the breakdown of the "deregistered vehicles" which are calculated with the vehicle ownership and new registration data. According to the analysis, the number of the "deregistered vehicles" in fiscal 2005 (April 2005 - March 2006) is about 5.2 million, which constitutes (1) the exported used vehicles: 1.1 million, (2) the end-of-life vehicles (ELVs): 3.05 million and (3) the other: 0.95 million. The "other" includes the ELVs delivered without the proper procedures as well as the increasing number of the temporarily deregistered vehicles. In the comparison of the twelve-month total numbers of the "other" in December 2005, March 2006 and June 2006, it turns out that there are not large differences between them. It is possible that some of the ELVs were delivered without the proper procedures until one and half year after the law took effect. A future remarkable point about the ELV Recycling Law is whether the illegal delivery to the unlicensed dismantlers will be decreasing or not. The recycling fee will be deposited about all the vehicles in the near future. On the other hand, there seems to be a situation that the auto dismantling operators pay or are forced to pay the recycling fee instead of the last users. This situation cannot be revealed with the existing data. It will continue as long as the effective policies cannot be adopted.

Scrapped Motor Vehicle Recycling in China

Research on Environmental Disruption (Kankyo To Kouzai), Vol.36, No.4, 2007, pp. 31-37 (in Japanese)

Yukihiko HIRAIWA

Abstract

We report here problems faced and current status of scrapped motor vehicle recycling in China. The policy of recycling scrapped motor vehicles in China began in the 1980s, passing through its founding stage into a stage of development in the 90s. In 2001, the current fundamental law entitled "Management Measures for Scrapped Motor Vehicles" went to effect, and its now standard policy. In China, the policy of recycling scrapped motor vehicles forbids vehicle reassembly using scrapped vehicles and covers used parts, and extensive material recycling of scrapped motor vehicles. Current measures include enforcement of a usage term system for motor vehicles, a governmental certification system for dismantlers (there are about 400 dismantlers across the country), and press treatment at 5 key assemblies.

Chinese dismantlers are facing problems in that, firstly, there is concern that serious environmental pollution is being caused by poor collection control of waste oil and chlorofluorocarbons, due to the undeveloped nature of scrapped motor vehicle treatment technologies and facilities in many regions in China (Japanese status in the 1970s). Secondly, illegal dismantlers exist and there is widespread inappropriate treatment and vehicle reassembly. This negatively affects certified dismantlers' management. Thirdly, used or scrapped motor vehicles flow out into the suburbs and the hinterlands. There is thus a tendency that urban areas, having more developed treatment facilities, have a severe lack of scrapped motor vehicles, and suburbs and the hinterlands, having less developed treatment facilities, have excess scrapped motor vehicles.

The policy of recycling scrapped motor vehicle in China is currently undergoing dramatic change. The motor vehicle usage term system and press treatment of 5 key assemblies is to be abolished. Moreover, in 2006, fundamental policy for 2010, entitled "Motor Vehicles Product Recovery Utilization Technology Policy" was announced. This policy will introduce EPR, as presently used in other developed countries.

Motor Vehicle Recycling in Russia: Steps Toward Japan-Russia Cooperation in the Use and Scrapping Stages

Research on Environmental Disruption (Kankyo To Kougai), Vol.36, No.4, 2007, pp. 38-44 (in Japanese)

Yusuke NAKATANI and Yutaka ASAZUMA

Abstract

In this paper, we argue present automobile recycling in Russia by our research from point of view in use and abandonment. And also we argue a view of an aid between Japan and Russia. According to trade statistics, we can find the expansion of automobile export from Japan to Russia and second hand car contains 60 percents of total. The number of automobile registration in Russia is 23 million and the half of them is a Russian domestic car. However, Toyota's new (second hand) cars are very popular, so in registration number ranking Toyota is the 4th grade. Second hand cars exporting from Japan are almost shipped to Vladivostok. And they are carried from far eastern area to each place in Russia via Siberian Railway. In Novosibirsk, the center of Russian area, we could find the share of right hand drive Japanese vehicle is about 46 percents.

In the near future, there are probabilities that the problem concerning with using automobiles and disposing automobiles will occur. Not only used car made in Japan but also the advancement of foreign manufactures has caused the increase in the number of the car in Russia. The number of owned cars in Russia have doubled in ten years from 1995. However, air pollution problems caused by the old type vehicle exhaust are becoming serious. The vehicle inspection system should be made severe. On the other hand, there is a possibility that the problem of pollution happens also at the stage of disposition. But there isn't original recycling policy about ELV. Recently there are problems about unlawful dumping around the metropolitan area and shortage of the waste disposal place. Because of these situations national automobile recycling system have started to discuss. We should take care of these movements.

The Philippines and International Car Recycle Rationalities under the Conditions of Poverty and Economic Gap

Research on Environmental Disruption (Kankyo To Kougai), Vol.36, No.4, 2007, pp. 53-55 (in Japanese)

Masahide NUKI

Abstract

If you want to think about the relationship between poverty and recycle, The Philippines is one of the most suitable countries to observe. The Philippines has the biggest slums in Asia, and many people (including children) work on recycling business in it. Also, in a notorious scandal in Japan, so-called Nisso case that a Japanese company tried to export hazardous wastes under the pretext of "recycle" in 1999, the destination country was the Philippines.

Traditionally, most of recycle has been performed by the poor in many countries. And now, most of international recycle is also performed by the poorer countries. This paper shows how used cars and used car parts are imported from Japan to the Philippines and how they are finally recycled, as an introduction to think about the relationship between poverty (especially in the view of international economic gap) and international car recycle.

In the Philippines, in spite of the regulations for used cars, the activities against them are lively. Used car import was prohibited since 2002 by Executive Order 156, to protect national car industry in the Philippines. After the import companies won a suit and the court judged EO156 was unfair and ineffective, the government made a new Executive Order: EO418, which obligates special tax, 500000 pesos for each imported used car (1peso is almost 0.02US\$). But even when the new EO is enforced, a lot of used cars are smuggled and it means wrongdoers earn more. When we consider policy especially in developing countries, we need to care the fairness and feasibility to avoid triumphs of vice over virtue.

To import used cars, they come up with various devices to elude the regulations. "Half-cut" is one of them. By cutting the car body half, it legally become used car parts and can avoid high tax of used car import. This way is popular in the used car trade between Japan and the Philippines. Half-cut is also taking advantage of a loophole in the law of Japan. Under the Japanese Car Recycling Law, when you export a used car in Half-cut style, it legally becomes 100% recycled while a normal used car export is not counted in the recycle rate. For the recyclers who are obligated high recycle rate under the law, Half-cut can be an attractive means for achieving the obligation. Half-cut is irrational for the society, but quite rational for economic player.

Also, cars which are remodeled with combining used parts are commonplace, and it is taking a significant part of economic activities in the Philippines. Jeeps are popular means of public transportation in the Philippines. Most of them are hand-made in small factories using

imported used car parts, especially functional parts. Not only Jeeps, but many cars are remodeled in the Philippines with combining different-makers' parts. They are generally not well maintained and tuned, so they are the main causes of serious air pollution. However, we also need to take it into consideration that Jeeps are appropriate technology for them in the price, skill and knowledge. Sometimes, companies from developed countries lobby to strengthen environmental regulation since it makes their products more competitive. The main members of Chamber of Automotive Manufacturers of the Philippines Inc. (CAMPI) are the companies with the foreign capitals and they have advanced technology for anti-pollution. We can say they have incentive to use environmental regulation for their benefits.

As we can imagine from the above, used car parts are in great demand for Jeeps and old cars. Also, they repair in parts-unit base, so basically they hardly scrap cars as they are. Older cars show a tendency to be sold in rural areas. We couldn't know how those cars are finally disposed. But in Metro Manila, much number of scraps and wastes are collected to Payatas Dump Site and recycle dealers in the area. Payatas is well known for the Dump Site, the slum quarters and the tragedy that many houses were destroyed and residents were died by the Dump Site avalanche. In that area, scraps and wastes are thoroughly separated by the poor, and most of the materials are going to China, the most promising country where a high rate of economic growth is shown.

These kinds of economic activities are rational not only for developed countries but also for developing countries, even though potential wastes are transported from developed countries to the others. The developed countries can save the disposal costs and environmental damages of landfill. The developing countries can get cars with low price and occupational change regardless of the accumulation of environmental and health damages. This is the rationality organized with the conditions of poverty and economic gap.

Shun-ichi TERANISHI

Professor, Graduate School of Economics, Hitotsubashi University

[Fields of Specialization]

- Environmental Economics
- [Major Publications]
- *Environmental Economic* (in Japanese), Co-author, Toyo Keizai, Tokyo, 1991.
- *The Political Economy of Global Environmental Problems* (in Japanese), Toyo Keizai, 1992.
- *The State of the Environment in Asia, 1999-2000*, Editor, Japan Environmental Council ed., Springer-Verlag, 2000.
- *The State of the Environment in Asia 2002-2003*, Editor, Japan Environmental Council ed., Springer-Verlag, 2003.
- *New Environmental Economic Policies* (in Japanese), Editor, Toyo Keizai, 2003.
- *Automobile Recycling in Japan* (in Japanese), Co-editor, Toyo Keizai, 2004.
- *The State of the Environment in Asia 2005-2006*, Editor-in-Chief, Japan Environmental Council ed., Springer-Verlag, 2005, etc.

Michikazu KOJIMA

Associate senior research fellow, Institute of Developing Economies,

Japan External Trade Organization (JETRO)

[Education]

- 1990 B.A. (Economics), Keio University
- 1997 M. Sc. Agricultural Economics, University of California, Berkeley
- [Employment History]
- 1990- Institute of Developing Economies
- 2004 Member of Working group on Enhancing International Recycling in Industrial Structure Council in Japan
- 2005- Member of Expert Committee on International Resource Circulation in Central Environment Council in Japan
- [Present Research Themes]
- Environmental issues in Indonesia, Recycling in Asian region
- [Major Publications]
- *International Trade of Recyclable Resources in Asia*, Editor, Institute of Developing Economies, 2005.
- *The State of the Environment in Asia 2006/07* (in Japanese), Co-editor, Japan Environmental Council ed., Toyo Keizai, 2006, etc.

Arata ABE

Assistant Researcher, Hitotsubashi University
[Education]

- 1996 B.A. (Economics), University of Tokyo
- 2002 M.A. (Economics), Hitotsubashi University
- 2006 Dr. (Economics), Hitotsubashi University

[Employment History]

- 2004-2006 Research Fellow, Japan Society for the Promotion of Science
- 2006- Assistant Researcher, Hitotsubashi University

[Fields of Specialization]

- Environmental Economics and Environmental Policy
- [Present Research Themes]

- Economic Analysis of Waste Disposal Responsibility

[Major Publications]

- "Economic Analysis of the Delegation of Waste Disposal and the Generator's Liability Rules" (in Japanese), *Studies in Contemporary Economics (Gendai Keizai-gaku Kenkyu)*, No.11, 2004, pp.47-73.
- *Automobile Recycling in Japan* (in Japanese), Co-author, Toyo Keizai, 2004.
- "End-of-Life Vehicle Distribution Flow: Did a Million Cars "Disappear"? (in Japanese), *Research on Environmental Disruption (Kankyou To Kougai)*, Vol.36, No.4, 2007, pp. 24-30.

[E-mail] fwht3171@mb.infoweb.ne.jp

Yukihiko HIRAIWA

Part-time lecturer, Obirin University
[Education]

- 1998 B.A. (Social science), Ibaraki University
- 2001 M.A. (Economics), Hitotsubashi University

[Employment History]

- 2004- Part-time lecturer, Obirin University
- 2006- Part-time lecturer, Kogakui University
- 2007- Part-time lecturer, Yokohama City University

[Fields of Specialization]

- Environmental Economics and Environmental Policy
- Industrial Organization
- [Present Research Themes]
- Automobile Recycling Industry and Policy (Japan and China)

[Major Publications]

- *Automobile Recycling in Japan* (in Japanese), Co-author, Toyo Keizai, 2004.
- "Vertical integration in automobile recycling" (in Japanese), *Obirin Economics*, No.52, 2005, pp. 75-96.

- "Automobile recycling in China and Shanghai city" (in Japanese), written jointly with WTU Wei, *Monthly Journal of Chinese Affairs*, Vol.60, No.9, 2006, pp. 17-29.

[E-mail] EZH03343@nifty.com

Yutaka ASAZUMA

Associate Professor, Hokkai-gakuen University
[Education]

- 1996 B.A. (Economics), Shizuoka University
- 2008 M.A. (Economics), Hitotsubashi University

[Employment History]

- 2002 Lecturer, Hokkai-gakuen University
- 2005- Part-time lecturer, Hokkaido Institute of Technology
- 2007- Associate Professor, Hokkai-gakuen University

[Fields of Specialization]

- Environmental Economics and Environmental Policy
- Economic Geography
- [Present Research Themes]

- Automobile Recycling Industry and Policy (Japan and Russia)

[Major Publications]

- "Study on Internationalized Automobile recycling and its Management" (in Japanese), *Journal of Development*, No.78, 2006, pp. 63-82.

[E-mail] yu.asaz@nifty.com

Yusuke NAKATANI

Assistant Professor, Kanagawa University
[Education]

- 1998 B.A. (Economics), Shizuoka University
- 2000 M.A. (Economics), Hitotsubashi University

[Employment History]

- 2006 Lecturer, Kanagawa University
- 2007- Assistant Professor, Kanagawa University

[Fields of Specialization]

• Environmental Economics and Green Business

• Industrial Economics

[Present Research Themes]

• Sustainable recycling business including automobile recycle

[Major Publications]

• “Study for Japanese Second Hand Cars in Russia” (in Japanese), *The Studies in Economics and Trade*, No.33, 2007, pp. 29-38.

• “Study for environmental problem in Vietnam steel recycling community” (in Japanese), *The Review of Economics and Commerce*, Vol.43 No.1, pp.19-29.

[E-mail] ynakatani@kanagawa-u.ac.jp

Masahide NUKI

Part-time lecturer, Kogakuin University

[Education]

• 1997 B.A. (General education), International Christian University

• 2001 M.A. (Economics), Hitotsubashi University

[Employment History]

• 2004 Part-time lecturer, Kogakuin University

• 2006 Part-time lecturer, Musashi University

• 2007 Part-time lecturer, Josai University

[Fields of Specialization]

• Environmental Economics and Environmental Policy

• Development Economics

[Present Research Themes]

• Automobile Recycling Industry and Policy (Japan and Asia Pacific)

[Major Publications]

• *Automobile Recycling in Japan* (in Japanese), Co-author, Toyo Keizai, 2004.

• “Recycling Issues of End-of-Life Vehicles in Palau: Economic Incentives and Producer Responsibility” (in Japanese), *Social-Human Environmentology Society*, Vol.1 No.8, 2005, pp. 81-96.

[E-mail] nukimasa@yahoo.co.jp