INTRODUCTION
Currently, due to fast economic development among Asian countries, the transboundary movement of waste is rapidly increasing, rising concerns over its potential negative environmental impact. Through a sweeping policy reform, Japan has drastically shifted its direction of waste management and 3R policies in the past 10 years. Since the G8 has launched the “3R initiative,” Japan, as a proposer of the initiative, intends to lead in constructing a Sound Material-cycle Society (SMS) throughout the entire region of East Asia through sharing its past experiences with other countries.

PART I: JAPAN’S EXPERIENCES IN WASTE MANAGEMENT AND 3R POLICIES TO BE SHARED WITH OTHER COUNTRIES

1. Assumptions of the following discussion
   □ Describe the concept of a SMS and its relationship to Sustainable Development and the contents of Circulative Resources (CR). Circulative Resources include waste and other used things that are usable as resources.

2. Japan’s past situation regarding waste management policies
   □ In the past, Japanese society and government gave the highest priority to advancing its economic development. Developing an environmentally sound management of its solid wastes was not a high priority. This resulted in widespread pollution and severe environmental problems, such as the illegal dumping of industrial wastes, the generation of dioxins, and inappropriate management of PCBs.

3. Development of legislative and regulatory systems
   □ In terms of waste management, Japan has developed a regulatory framework including the introduction of a manifest system, from the standpoint of thoroughly implementing the concept of generator’s responsibility for proper management of industrial waste. Regarding recycling policy, Japan incorporated the concept of extended producer responsibility (EPR) into the Containers and Packaging Recycling Law, Home Appliance Recycling Law, End-of-Life-Vehicles Recycling Law, etc. In addition, other legislative systems have been entered into force according to the characteristics of waste, such as food residues, and construction and demolition debris.
   □ To promote a more environmentally sustainable society and economy with more recirculation of resources and less waste produced, Japan developed a legislative system based on the Basic Law for Establishing a SMS (Basic Framework Law). Under this Basic Framework Law, the Government of Japan has developed and implemented
the Basic Plan for Promoting the Creation of a SMS as a comprehensive policy plan agreed unanimously by the Cabinet.

- Under the leadership of the central government, legislation was enacted to create a system for the proper treatment and disposal of PCBs, which are considered hazardous and difficult to treat. The system has treatment facilities throughout the country.

4. Development of 3R promotive technologies
   - There are two aspects to 3R promotive technologies:
     1) Reduce environmental impact through the reduction of the generation of waste and promoting its appropriate disposal.
     2) Promote sound economic development by conserving scarce and valuable resources.
   - Japan has successfully developed various 3R technologies including the promotion of eco-designs, the development of rare metal recovery, and innovative incineration methods.

5. Promote region-based measures through the involvement of relevant stakeholders
   - In order to construct a SMS, one of the most effective policy measures is to develop, with the collaboration between central and local governments, regional plans with numeric targets of 3R activities. Conforming to the actual situation of the region, these plans guides the development of the necessary infrastructure for the formation of a SMS at a local level.
   - Cooperation between the central and local governments is crucial in reducing the generation of hazardous wastes, particularly in personnel training and information exchange.

PART II: REALIZING APPROPRIATE CYCLICAL USE AND DISPOSAL OF CIRCULATIVE RESOURCES THROUGHOUT EAST ASIA

1. International trends and Japan’s issues concerning circulative resources.
   - Considering the increase of generation of CR in developing countries and their transboundary movement, it is crucial for Japan to develop policy measures toward a appropriate cyclical use and disposal of CR among East Asian countries with strong relationship to Japan, based on current legislative systems including the Basel Convention.

2. Basic concept toward the construction of a SMS internationally
   - The pros and cons of the transboundary movement of CR should be considered in the light of their possible environmental impact and economic value as resources. Pollution prevention should guide efforts on this regard, and is a prerequisite for the effective utilization of resources.
   - The approaches toward the transboundary movement of circulative resources shall include:
     1) The top priority should be put on promoting the proper management of CR within
each country, and to improve the capability of promoting 3Rs, in conformity with national regulations.

2) Simultaneously, it is essential to prevent the illegal export/import of CR.

3) If the above two measures are properly implemented, it is important to facilitate the transboundary movement of CR in a contributive fashion to the reduction of their environmental impacts and the effective use of resources.

Based on the above concept, a basic policy for constructing an international SMS strategy is proposed. Furthermore, policy directions for the appropriate cyclical use and disposal of CR are provided in accordance with the characteristics of CR on the basis of their environmental impact and economic value: hazardous wastes, no value wastes, and so on.

3. Japan's concrete measures based on the above concept

In terms of its effective implementation of policy measures, Japan takes the following important points into consideration:

1) Consider the needs of developing countries and other regions
2) Ensure synergy effects with the measures for other environmental policy fields
3) Prevent undesirable influences on domestic waste management and 3R systems
4) Conserve rare and valuable resources
5) Consistency with national trade policies

Details of Japan's prospective concrete measures]

(1) Realize the proper cyclical use and disposal of CR within the East Asia region

While emphasizing the policy factors of 1) consistency in each country’s policies, 2) international coordination, and 3) the proper implementation of policies, it is necessary to promote the appropriate treatment of CR within each country of the East Asian region, through international assistance for capacity development focusing on the autonomy of each developing country and the continuity of their measures.

- Implement policy dialogue and support the planning of 3R policies and systems
- Improve the capacity to cyclical use / proper disposal of CR
- Develop the basis of 3R knowledge and technologies, such as a research network
- Promote activities by local public entities, NPOs and NGOs
- Promote policy measures related to other relevant environmental issues

(2) Develop and strengthen policy measures to prevent illegal exports/imports of CR

In order to prevent environmental pollution caused by the increasing transboundary movement of CR, it is necessary to develop and strengthen policy measures for preventing illegal exports/imports of hazardous wastes. This can be done through cooperation among relevant government authorities of Japan, other countries, and international organizations, such as Basel Convention Secretariat.

- Collect current and reliable data on the transboundary movement of CR and develop its analytical methods
- Promote to share common understanding of the targets to be regulated in cooperation
with international organizations and various foreign countries

- Improve the traceability of transboundary movement of CR
- Further develop a network for the prevention of illegal export/import
- Prevent infringement of intellectual property rights of Japanese stakeholders

(3) Facilitate the transboundary movement of CR in a way that protects the environment

It is important to advance the policy measures that can promote the effective utilization of CR through their transboundary movement, focusing on the economic values of CR on the condition that environmental pollution will be prevented, and its environmental impact be minimized.

- Examine procedures to facilitate the export/import of CR
- Start to develop a common Asian database of hazardous materials
- Review methods to reduce trade barriers of remanufactured products

PART III: FURTHER INTERNATIONAL EFFORTS: TOWARD THE REALIZATION OF THE “EAST ASIA 3R VISION” IN THIS “CENTURY OF THE ENVIRONMENT”

- In order to advance the proposed policy measures, it will be beneficial to develop a regionally shared concept toward the SMS in Asia (Asian Standard), regarding East Asian countries as Japan’s “partners” for the development of a proper resource circulation system in the region.
- Finally, it is important to create a new socio-economic system that calls for an “Environmental Revolution,” and to develop the “East Asia SMS vision based on 3R concept” (East Asia 3R vision) that promotes the appropriate circulation of material resources in the entire region.
Japan’s future measures toward the construction of a “Sound Material-cycle Society” (SMS) in the globe
- To Realize the East Asia SMS Vision Based on 3R Concept -

Increase in the transboundary movement of circulative resources

- Increased quantity of international transfers of hazardous wastes
- Increased quantity of circulative resources exported from Japan

*circulative resources: include waste and other used things that are usable as resources.

Increasing generation of wastes in developing countries

- In developing countries, the waste generation will increase rapidly with their economic growth in the future

Environmental pollution caused by improper treatment and disposal of wastes

- Environmental pollution abroad through discarded electric and electronic appliances
- Environmental pollution through landfill and open dumping

Images of the East Asia SMS Vision based on 3R concept

Necessity to ensure appropriate use and disposal of circulative resources from the generation point of the entire East Asian region

Promote the development of a SMS in East Asia lead by Japan

Share the past experiences of Japan with other countries
- Japan’s past situation regarding waste management policies
- Development of legislative and regulatory systems
- Development of 3R promotive technologies
- Promote region-based measures through the involvement of relevant stakeholders

Realize the proper cyclical use and disposal of circulative resources within the East Asia region
- Implement policy dialogue and support the planning of 3R policies and systems
- Improve the capacity for the cyclical use/disposal of circulative resources
- Develop the basis of 3R knowledge and technologies, such as a research network

Develop and strengthen the measures to prevent illegal exports/imports of circulative resources
- Collect current and reliable data on the transboundary movements of CR and develop its analytical methods
- Promote to share common understanding of the targets to be regulated in cooperation with international organizations and various foreign countries
- Improve the traceability of transboundary movements of circulative resource etc.

Facilitate the transboundary movements of circulative resources in a way that protects the environment
- Examine procedures to facilitate the exports/imports of circulative resources
- Start to develop a common Asian database of hazardous wastes etc.

Japan’s Concrete policy measures

Proper Control at the border
- Reinforcement of measures against the improper transfer of circulative resources in the international community
- Facilitate transboundary movement of circulative resources from the point of generation for the effective use of resources

International circulation to complement domestic circulation
- Reduce environmental load in the entire East Asian region, through the development of proper resource circulation

Viruses are not described in this text.

Measures suitable for each circulative resource
- Improve national 3R capacity

Trend of transboundary transfers of hazardous wastes

Quantities of Circulative resources exported from Japan

Domestic Circulation

International Circulation

National border