

## Memos for Roundtable discussion

Seiji Hashimoto

Senior Researcher, National Institute for Environmental Studies

## (Tentative)

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## Priority setting of material flow analysis and management

- We also have discussed this prioritization issue. But it is not easy.
- There are two points of view for prioritization: environmental and resource management.
- CML published a study on environmental impacts of materials based on LCA methodology.
- http://www.leidenuniv.nl/cml/ssp/projects/dematerialisation/index.html
- Criteria for determining important resources include exhaustion, uneven distribution, and rapid increase in demand.
- Future demand for materials in developing countries and materials for new technologies (e.g. technologies for mitigation of climate change) are important issues from resource and environmental management points of view.

Nov. 12, 2008 S.Hashimoto EU case study DMC and DMC per GDP: EU-25 + AC-3 countries Other composite products Other biomass Biomass from hunting Biomass from agriculture LCI: ETH database Biomass from fishing LCIA: CMLCA Riomass from forestry 5000 Biomass from agriculture (13 impact categories) 4000 Construction minerals Construction minerals ₩ 3000 Industrial minerals Ores and metals 2000 Fossil fuels 1000 Fossil fuels ->- DMC per GDP EMC per capita for the EU-25 and AC-3 countries 1992 1993 1994 1995 1996 1997 1998 1999 2000 EU-25 + AC3, 1992 - 2000 Ewood

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Board and stone

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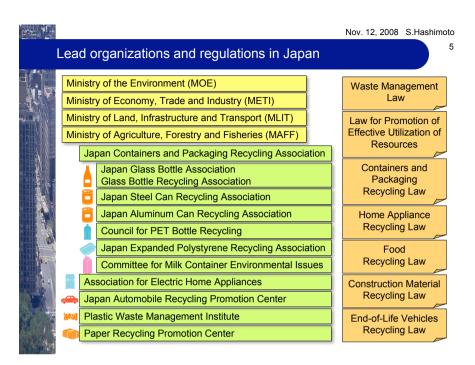
Biron and stone

Biron and stone ✓ Depletion of non-renewable resources is also included in environmental impact Animal products categories ✓ Results are highly dependent Crops on weighting methodology Source: van der Voet et al. (2005) Policy review on decoupling: Development of indicators to assess decoupling of economic development and environmental pressure in the EU-25 and AC-3 countries

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## Roles played by the governments, industries, and others

- ☐ Japanese government is reducing national statistics in order to reduce administrative costs. This is also based on demand from industries that want to reduce statistical work.
  ☐ On the other hand, current environmental regulations
- On the other hand, current environmental regulations require material flow data collection (e.g. recycling flows, GHG emissions). Industries also have to report their environmental performances.
- Fundamental Plan for Establishing a Sound Material Cycle Society and other recycling regulations had positive influence on MFA studies in industries and others.



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International cooperation

□ Potential international cooperative researches include:

✓ Prediction of future demand for materials because socio-economic system is different in each country.

- Comparison of a particular material use (e.g., wood and metals) because material use is different in each country.
- International trade of wastes and second-hand products.