

Appendix: Mapping Document on 3R Policy

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This section overviews legislation, ministries, programs on 3R in Indonesia, Japan, Malaysia, Philippines, Singapore, Thailand and Vietnam.

Countries in the region have adapted 3R principles in environmental protection and waste management laws. One of the earliest legislation is Act for the Promotion of Utilization of Recycled Resources of Japan enacted in 1991. Japan has enacted several legislations for promoting 3R in these two decades, including Fundamental Law for Establishing a Sound Material-Cycle Society. Philippines enacted Ecological Solid Waste Management Act in 2001, which has various articles to promote recycling, such as establishment of material recovery center, and formulation of strategy to develop market for recycled goods. Viet Nam's Environmental Protection Law revised in 2005, Malaysian Solid Waste Management and Public Cleansing Act enacted in 2007 have some articles on promoting recycling.

Due to various settings of responsibilities of ministries across the region and various stakeholders involving in 3R, ministries in charge of or related to 3R are different in the region. All of ministries in charge of environment in the region have some activities on 3R. But other ministries are also active in some countries. For example, Ministry of Construction in Vietnam and Ministry of Public Works in Indonesia are in charge of infrastructure development including the waste treatment facilities. In Malaysia, Ministry of Housing and Local Government is responsible for municipal solid waste management. Ministry of Economy, Trade and Industry in Japan, and Ministry of Industry in Thailand are active to encourage development of recycling industries in the countries.

One of the important policy measures which is going to be applied in various countries is Extended Producer Responsibility. Japan and South Korea have some experiences of mandatory take-back programs by manufacturers, more than 10 years. Viet Nam's Environmental Protection Law, Malaysian Solid Waste Management and Public Cleansing Act, and Indonesian Solid Waste Act have articles related to extended producer

responsibility. Thailand made public the draft of act on e-waste recycling, which is also trying to apply EPR. The detail regulations are being prepared by each government. Other than mandatory approach, voluntary agreement between government and private sector is another option to encourage efforts of private sectors on recycling and waste reduction. Singapore government made voluntary agreement on recycling packaging waste with retailers and industries in 2007.

Regarding industrial waste reduction, cleaner production program have been implemented in Thailand, Vietnam, Indonesia and Philippines. Although Cleaner production also covers energy savings and efficient use of water, waste reduction and recycling can generate the benefit to industries.

Industrial waste information exchange programs have been conducted in Japan, Philippines and Thailand. Viet Nam, Malaysia, and Singapore have not conducted such program.

This mapping document is initial attempt to overview the current activities. We are planning to expand the scope of mapping document, in terms of coverage of topics and countries. We are planning to add item-wise information on recycling, recycling infrastructure, industrial standard of recycled goods, trade regulation on recyclable waste and others into the mapping document. The target area will be expanded to other ERIA member countries.

Following tables are prepared by authors, based on various information, presentation and comment from the experts of the working group.

	Definition/Explanation	Indonesia	Japan	Malaysia	Philippines	Singapore	Thailand	Viet Nam
Major Ministries, Agencies	Ministry in charge of Environment	State Ministry of Environment	Ministry of the Environment	Department of Environment in Ministry of Natural Resource and Environment	Department of Environment and Natural Resources	National Environmental Agency	Pollution Control Department, Ministry of Natural resources and Environment	Ministry of Natural Resource and Environment
	Minsitry in chatge of Municiple Waste		Ministry of the Environment	Ministry of Housing and Local Government		National Environment Agency (NEA)	Department of Health; Ministry of Public Health	People's Committee/ Department of Construction
	Ministry in charge of public works inclduing waste management	Ministry of Public Works, only for domestic waste					Department of Provincial Administration, Ministry of Interior	Ministry of Construction
	Ministry in charge of Hazardous Waste		Ministry of the Environment	Department of Environment in Ministry of Natural Resource and Environment	Department of Environment and Natural Resources		Pollution Control Department	Ministry of Natural Resource and Environment
	Ministry in charge of Industry		Ministry of Economy, Trade and Industry		Board of Investment, Department of Trade and Industry	Ministry of Trade and Industry	Depatment of Industrial Wors, Ministry of Industry	Ministry of Industry and Commerce
	Ministry in charge of Small and Midium Enterprise				Department of Science and Technology (non - regulatory)	Agency for Science, Technology & Research	The Office of Small and Medium Enterprises Promotion	People's committee/ Department of Industry and Trade/ Ministry of Industry and Trade
	Ministry in charge of Technological Development				Department of Science and Technology	SPRING Singapore		Ministry of Science and Technology
National target	Type of national target on recycling	Public Work Ministry Regulation # 26/2006	Resource Productivity: 60% reduction, Cyclical Use Rate (Usage rate of recycled goods): 40-50% increase, Final Disposal Amount: 60% reduction, set in the 2nd Fundamental Plan for Establishing a Sound Material-Cycle Society for FY2015 compared to FY2000		mandatory 25% solid waste diversion from waste disposal facilities through reuse, recycling, etc.. w/n 5 yrs of the ESWMA; with an increase every 3 yrs	Recycling Rate 60% in 2012	Recovery rate 30% in 2009 (2005-2009)	
Legal basis of implementing EPR		Solid Waste Management Act 18/2008		SWPCM Act	Ecological Solid Waste Management Act(2001)			Article 67 of the Law on Environmental Protection (2005) for radioactive waste, battery, home appliances,
EPR (including Shared responsibility)	Types of Responsibility		Packaging and Container (Mainly financial)				Draft regulation on e-waste	Decree No. 80/2006/ND-CP on guiding for enforcement of the Law on Environmental Protection (2005)
			Specific Home Appriances (Mainly Physical Responsibility to producer)					
			Automobile(Mainly Physical Responsibility to producer)					
			Computer (Mainly Physical Responsibility to producer)					
Recycling Obligation to Waste Generator			Construction Waste			It is mandatory for condominiums and private appartments to have receptables within the estates for collection of recyclables.		
			Food waste from large waste generator					

Programs		Indonesia	Japan	Malaysia	Philippines	Singapore	Thailand	Viet Nam
Voluntary Collection Program	Mobile Phone		Mobile phone	Nokia	mobile phone and accesary	Nokia	Take-back Program for end-of-life Mobile phones, Batteries and Packaging	3R (reduce – recycle – reuse) project funded by JICA was done in 4 precincts in Ha Noi: Phan Chu Trinh, Thanh Cong, Lang, Nguyen Du
	others		Small home appliances, in some prefectures	Compute (HP, Dell)			Used lead-acid batteries recycling	“Program of food recyclable boxes” in 21 primary schools in Phu Nhat, III, I precinct and Binh Thanh Precinct
						Packaging agreement (non-binding)	Promotion of Material Recovery, Energy Recovery and Replacement in Cement Kiln	
							Pilot Program on Plastic and Foam Waste Management	
							Thailand Institute of Packaging Management for Sustainable Environment, 2006	
							Collection of Fluorescent Lamp	
	Collection Event				Collection Event organized by PBE, Malls,			
Rating Program in General, Awards for SWM	Award for companies on Environmental aspect including waste	PROPER Rating Program for industrial activity ADIPURA for clean city award		Haibiscas Award	Annual Model Local Govt Unit (LGU)/ Barangay Awards for Eco - Waste Mgt		Industrial Prime Minister Awards	
	Award for Local Government on environmental aspect including Waste	ADIPURA			Mother Nature Award (Industry) - Pollution Control Association of the Phils/ PCAPI; Excellence in Ecology and Economy (E3) Awards - Phil. Chamber of Commerce and Industry; Industry `Lason` / (Poison) Awards - Sagip Pasig (NGO)		EMS for SMEs Award	“Environmental initiatives prize of WB” for Vietnam
							Good Governance Award	
Industrial Standard			"Action Program for Promoting Formulation of Environmental JIS"			Standardization of Wooden Pallets		
Eco-Labeling	Type I (ISO 14024)		Eco-mark, started in 1989	SIRIM started in 2008.	Green Choice Phils			Article 34 of the Law on Environmental Protection for encouraging the habits to consume the friendly products
	Type III		Eco-leaf					
Promoting Recycling Industry			Tax incentive for some specific industry					
			Eco-town Program: 26		Eco industrial Park	Sarimbun Recycling Park	Eco-town Program	
Green Public Purchasing			Green Purchasing Law, Green Contract Law, 2007	Tax incentives for environmental goods	(Presidential Order 301)		Green Procurement Plan, 2008	
Cleaner Production Center		National Cleaner Production Center			Cleaner Production Program - Dept of Science and Technology, Industrial Technology and Devt Institute		Thailand Network for Eco-efficiency and Cleaner Production	Vietnam Cleaner Production Center
							Cleaner Technology Research and Education Consortium	