No.1 "City to city cooperation towards sustainable urban development"

	City/Organization	Title	Name
1	Bangkok	Chairman of Advisers to	Dr. Vallop Suwandee
	_	Governor of Bangkok	·
2	Da Nang	Vice Chairman	Mr. Nguyen
			Ngoc Tuan
3	Kitakyushu	Chief Executive,	Mr. Kengo Ishida
		Environment Bureau in	
		charge of International	
		Environmental Strategies	
4	Penang	Town Planner Director	Mr. Roslan Ramly
5	Phnom Penh	Deputy Director of	Mr. Huot Hay
		Administration	
6	Yokohama	Director of Development	Mr. Toru Hashimoto
		Cooperation Department,	
		International Affairs Bureau	
7	Asian Development Bank	Director General,	Ms. Maria Carmela
		Sustainable Development	Dinglasan Locsin
		and Climate Change	NA. VC.
		Technical Advisor, Urban	Mr. Vijay
	C40 Cities Climate Landaushin	and Water Sector	Padmanabhan
8	C40 Cities Climate Leadership	Regional Director for	Ms. Milag San Jose- Ballesteros
	Group	Southeast Asia and Oceania	Ballesteros
9	Cabinet Office Japan	Counsellor, Office for	Mr. Masaaki
9	Cabinet Office, Japan	Promotion of Overcoming	Takabatake
		Population Decline and	Tanabalane
		Vitalizing Local Economy in	
		Japan	
10	Cabinet Secretariat, Japan	Counsellor	Mr. Naoto Hisajima
	Cabinet Coordanat, Capan	Codinolioi	Wii. Naoto i iioajiina
11	Fira Barcelona	International Director, Smart	Mr. Luis Gómez
		City Expo World Congress	
12	ICLEI - Local Governments for	Director, ICLEI Japan Office	Mr. Takashi Otsuka
	Sustainability		
13	Japan International Cooperation	Executive Technical Advisor	Mr. Toshiyuki Iwama
	Agency	to the Director General	
14	JFE Engineering Corporation	Deputy General Manager,	Mr. Gen Takahashi
		Global Business	
		Development	

15	World Bank	Senior Officer, Tokyo Mr. Daniel A. Levin	
		Development Learning	
		Center	
16	Yokohama City University	Director, Global	Prof. Masazumi Ao
		Cooperation Institute for	
		Sustainable Cities	

Dr. Vallop Suwandee

Chairman of Advisers to Governor of Bangkok

Education

- Upper Secondary, Saint Gabriel's School, 1965
- B.S. in Ed. (HONS.) Northern Illinois University ,1969
- M.S. in Ed. Northern Illinois University ,1971
- Bachelor of Laws, Ramkamhaeng University, 1979
- Ph.D. Illinois State University, 1996
- National Defense College,1996

Positions

- President of Kasem Bundit University, 1987- present
- Director of Kasem Polytechnic College, 1971- present
- Director of Kasem Pitaya School, 1971- present
- Deputy Governor of Bangkok, 2005 2008
- Chairman of Advisers to Governor of Bangkok, 2009 2011
- Deputy Governor of Bangkok, 2012
- Chairman of Advisers to Governor of Bangkok, 2013 present

Work Experiences

- Present Executive Member on the Committee of Student Loan, Ministry of Finance
- Former member of National Education Reform Commission
- Former Associate Judge of the Central Labor Court
- Former specialist on the Committee of Private Higher Education, Ministry of University Affairs
- Former specialist on the Committee of Private Education, Ministry of Education
- Former President of the Federation of Private Educational Associations of Thailand
- Former President of the Association of Private Higher Education Institutions of Thailand
- Former President of Phi Delta Kappa, Thailand Chapter
- Former Secretary-General of the Association of Private Vocational Schools of Thailand

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Mr. Nguyen Ngoc Tuan Vice Chairman of Da Nang city People's Committee



- Date of birth: 25/12/1958

- Place of birth: Dien Ngoc village, Dien Ban district, Quang Nam province

- Ethnic group: Kinh

- Qualifications: Architect

- Position:

+ Member of Da Nang Municipal Communist Party Committee

+ Vice Chairman of Da Nang city People's Committee

- Work history:

+ 1978 - 1984: Department of Architecture, University of Kiev, Ukraine

+ 1985 - 1997: Quang Nam - Da Nang city People's Committee

+ 1997 - 2000: Director of Da Nang city Urban Planning Institute

+ 2000 - 2002: Vice Director of Department of Construction, Da Nang city

+ 2000 - 02/2012: Director of Department of Construction, Da Nang city

+ 02/2012 to present: Vice Chairman of Da Nang city People's Committee



Kengo ISHIDA Chief Executive (in charge of International Environmental Strategies) Environment Bureau City of Kitakyushu

-Brief Profile-

[Education]

March 1981 Graduated from Kyushu University's School of Literature, having specialized in sociology.

[Professional Career]

April 1981 Started working for the City of Kitakyushu

April 2003 Director, International Policy Division, Planning and Culture Bureau

April 2007 Director, Policy Division, Planning and Culture Bureau

April 2009 Director, International Environmental Strategies Division, Environment

Rureau

April 2011 Executive Director in charge of the Kitakyushu Asian Center for a Low

Carbon Society, Environment Bureau

CV – TUAN HAJI ROSLAN RAMLY

Tuan Haji Roslan Ramly, aged 53, was born in Kuala Kangsar, Perak, Malaysia. He first hold his Diploma in Architectural, Planning and Surveying from Mara Institute of Technology in the year 1982, followed by Diploma in Town &



Regional Planning from Universiti Teknologi Malaysia in the year 1989 and Bachelor Degree in Housing, Building and Planning from Universiti Sains Malaysia in the year 1996. He later pursued his study again in Universiti Sains Malaysia and finally was granted with Master in Town Planning in the year 1997.

He initiated his career as a Technician in the Penang Island Municipal Council (Majlis Perbandaran Pulau Pinang) which is now known as Penang Island City Council (Majlis Bandaraya Pulau Pinang) in the year 1983, followed by his promotion as Assistant Town Planner in the year 1990. He was later appointed as a Town Planner in the year 2001 and now he had successfully landed his tenure as Deputy Director of Development Planning Department with the total length of 32 year in services in Penang Island City Council.

With his diverse background, functional and experience over a period that spans more than three decades, Tuan Haji Roslan had continues to helm the department with full accountability across the areas of operational excellence and full planning of Penang Island especially in planning permission and development control of the island through preparation of policies and guidelines.

He had collaborated with the other government sectors and had directly responsible in preparation of Penang Island Structure Plan & Local Plans and the latest, Penang Island Transport Master Plan.

He is a registered professional planner with Malaysian Institute of Planners (MIP) – the board of Town Planners Malaysia.

Curriculum Vitae

1. PERSONAL INFORMATION

Name : Huot Hay

Position : Deputy Director of administration, Phnom Penh

Capital Hall, Cambodia

Age : 40 Years
Nationality : Khmer
Religion : Buddhist

Place of Birth : Batheay District, Kompong Cham Province

Address : #F94, St 579, Borei Sopheakmongkul, Sangkat Chroy

Changva, Khan Russei Keo, Phnom Penh Capital

Phone : +855-12-977-502 E-Mail : huothay@gmail.com

Marital Status : Married

2. EDUCATIONAL INFORMATION

2005 Master of Law, Nagoya University, Japan (2002 - 2005)

1998 Bachelor of Law, Royal University of Law and Political Science, Phnom Penh,

Cambodia (1993 - 1998)

1997 Diploma of Administration, Royal School Administration, Phnom Penh, Cambodia

(1996 - 1998)

3. WORK EXPERIENCE

Experiences in Public Sector

2008 - Present	Deputy Director of Administration, Phnom Penh Capital Hall
2008 - 2010	Deputy Chief of the Cabinet, Phnom Penh Municipality
2006 - 2008	Deputy Chief of Investment Office, Phnom Penh Municipality
2005 - 2006	Assistant to the Phnom Penh Governor
2002 - 2005	Studied at Nagoya University, Japan
1998 -2002	Officer of Inspection Department of the Ministry of Interior

Experiences in Private Sector

2000 2002	- T	C 1 1'	D 1	\sim
2000 - 2002	Trainer	Cambodian	Red	rocc
4000 - 4004	manici.	Cambodian	IXCU	CIUSS

1997 - 1998 Legal Assistant, UNDP



Toru Hashimoto

Director

Development Cooperation Department

International Affairs Bureau

City of Yokohama

Toru Hashimoto is Director of Development Cooperation Department, the City of Yokohama, and in charge of program Y-PORT (Yokohama Partnership of Resources and Technologies). Y-PORT is public private partnership endeavor to deliver knowledge and cutting-edge technology for urban solutions. For detail. refer more please http://www.city.yokohama.lg.jp/kokusai/yport/en/. He was instrumental to conclude Memorandum of Understanding between ADB and the City of Yokohama in regards of urban management and solutions. Before joining the City of Yokohama he took managerial positions in World Bank and Asia Development Bank Institute. He was educated in University of Tokyo, Asia Institute of Technology, and Massachusetts Institute of Technology on urban planning, engineering and human settlements. Away from professional career he enjoys composing pop music and performance as a keyboard player.





Ma. Carmela D. Locsin

Director General Sustainable Development & Climate Change Department

Ms. Carmela D. Locsin is Director General, Sustainable Development and Climate Change Department (SDCC) (formerly Regional and Sustainable Development Department), a position she assumed in 1 July 2014. Prior to this, Ms. Locsin assumed various positions including: Head of the Office of Cofinancing Operations (OCO); Deputy Director General, South Asia Department; Deputy Director General, RSDD; and Director of OCO.

Prior to joining ADB in 1997, Ms. Locsin worked at the International Finance Corporation, USA and the World Bank for 7 years. Ms. Locsin is a national of the Philippines. She has a Master's degree in Business Administration from Georgetown University, Washington, D.C., USA and a Bachelor's degree in Economics from the University of the Philippines.

Ma. Carmela D. Locsin Telephone: +63 2 632 5462 Email: mclocsin@adb.org

ADB website: http://www.adb.org



Vijay Padmanabhan

Technical Advisor (Urban and Water) at Asian Development Bank

vijaip72@gmail.com

Summary

Vijay is an Engineer Urban Planner who focuses on urban development, water and sanitation project development and implementation. His strengths lie in leading large multi-sector teams and meeting tight delivery timelines. Over the last 19 years, he was involved in strategic and enterprise resource planning for urban local bodies; structuring and financially closing integrated urban services projects, private sector projects and infrastructure bonds in the water and sanitation sector; implementing integrated urban services projects; and structuring and implementing emergency and disaster assistance projects. Vijay has working knowledge in India, Kyrgyz Republic, Kazakhstan, Azerbaijan, Armenia, Georgia, and Sri Lanka.

Experience

Technical Advisor at Asian Development Bank

March 2015 -Present (6 months) Provide technical leadership to the Bank's Urban and Water Sector Groups (SG) in collaboration with the Operations Departments. Develop and maintain sector policies, strategies, operational plans, and directional papers to guide bank-wide work and ensure alignment with ADB's Strategy 2020. Work with complex issues and guide others in resolving complex problems with high levels of risk.

Principal Urban Development Specialist, South Asia at Asian Development Bank

March 2014 -February 2015 (1 year) Responsible for policy, procurement, project development, structuring, processing, management and administration of urban development, water supply and sanitation sector projects. Region of operation included India and Sri Lanka. Managed a \$1 billion portfolio. Also involved in designing a new instrument (Project Design Facility) for improved project readiness and implementation.

Senior Urban Development Specialist, South Asia at Asian Development Bank

March 2013 -February 2014 (1 year) Responsible for project development, structuring, processing, management and administration of urban development, water supply and sanitation sector projects. Region of operation includes India and Sri Lanka. Currently managing a \$0.5 billion portfolio and structuring a \$0.5 billion portfolio.

Senior Urban Development Specialist, Central and West Asia at Asian Development Bank

June 2011 -March 2013 (1 year 10 months) Responsible for project development, structuring, processing, management and administration of urban development, water supply and sanitation sector projects. Also responsible for structuring emergency and disaster assistance projects. Region of operation includes Central Asia and the South Caucasus covering Armenia, Georgia, Azerbaijan, Kazakhstan, and Kyrgyz Republic. Managed a \$1.5 billion portfolio in Azerbaijan, Georgia and Kyrgyz Republic.

Urban Development Specialist, Central and West Asia at Asian Development Bank

April 2008 -June 2011 (3 years 3 months) Responsible for project development, structuring, processing, management and administration of urban development, water supply and sanitation sector projects. Also responsible for structuring emergency and disaster assistance projects. Region of operation includes Central Asia and the South Caucasus covering Armenia, Georgia, Azerbaijan, and Kyrgyz Republic.

Director-Urban Development, India and Central Asia at Wilbur Smith Associates, Inc.

July 2005 -April 2008 (2 years 10 months) Responsible for WSA, Inc. Operations in India, managing WSA projects in India, and responsible for procuring business in the Transport and Urban Infrastructure sectors. Subsequently responsible for procuring, executing projects and managing business in the urban development sector throughout Asia.

Director-Development Planning at Wilbur Smith Associates Pvt Ltd

January 2004 - July 2005 (1 year 7 months) Responsible for managing the Development Planning Division in WSAPL and overseeing projects in Urban Planning, Urban Governance, Social Development and

Environmental Planning; business procurement in Development Planning; and overall WSAPL Company management.

Sr. Project Development Specialist at Indo-USAID FIRE Project

July 2001 -January 2004 (2 years 7 months) Responsible for project development and contract award in the areas of urban infrastructure including projects with public-private partnerships; developing infrastructure financing instruments; and implementing institutional strengthening / management information systems for Urban Local Bodies. Key achievements comprised bid process assistance for Performance-Based Service Contracts in water and sewerage in Navi Mumbai and developing the Pooled Finance Framework for Infrastructure Bonds under the Greater Bangalore Water Project. *1 recommendation available upon request*

Languages

Hindi (Limited working proficiency) **Tamil** (Limited working proficiency) **Kannada** (Limited working proficiency) **Gujarati** (Elementary proficiency)

Skills & Expertise

Urban Planning Water Environmental Planning Urban Water Supply Environmental Engineering Project Portfolio Management Project Planning Policy Strategy Public/private Partnerships Procurement

Education

School of Planning, CEPT, Ahmedabad

PG Diploma in Planning, Urban & Regional Planning, 1994 - 1996

SVR National Institute of Technology, Surat

BE, Civil Engineering, 1989 - 1993

National Public School, Indranagar, Bangalore

Physics, Chemistry, Mathematics, Biology, 1987 - 1989

Baldwin Boys High School, Bangalore

1982 - 1987

Honors and Awards

Gold Medalist and Best Thesis Award for PGD in Planning, 1996

Vijay Padmanabhan

Technical Advisor (Urban and Water) at Asian Development Bank vijaip72@gmail.com



1 person has recommended Vijay

"I have just returned from an extensive site visit of a very impressive Public Private Partnership for Drinking Water Supply and the managers of that project are very appreciative of the technical assistance provided by Vijay Padmanabhan in helping to develop this partnership."

— **J. David Foster**, Senior Urban Environmental Advisor, Administrative Staff College of India; Centre for Energy, Environment, Urban Governance & Infrastruc, was with another company when working with Vijay at Indo-USAID FIRE Project



Milag San-Jose Ballesteros Regional Director for Southeast Asia and Oceania C40 Cities Climate Leadership Group

Milag San Jose- Ballesteros serves as the Regional Director for Southeast Asia and Oceania at C40. In this role, she is responsible for engaging and supporting C40 member cities in the region as well as for facilitating collaboration between cities across the global C40 network.

Prior to joining C40, Milag served as Regional Environmental Governance Specialist with the Environmental Cooperation-Asia program of the United States Agency for International Development (USAID), where she led programmatic partnerships between national and sub-national environmental agencies, and provided technical support to pilot initiatives covering topics including urban environmental issues, compliance and enforcement mechanisms, climate adaptation measures and public participation. In this capacity, she worked with 16 countries across Asia and coordinated engagements with various organizations and partners including the US Environmental Protection Agency, the World Bank, Asian Development Bank and the United Nations Environment Programme. Prior to this, she served as a Senior Program Officer with the US-Asia Environmental Partnership promoting clean technology, and as Executive Director of the Philippine member of Friends of the Earth International, managing 4 offices across the country. A native of Manila, Philippines, she has been based in Singapore since 2008.



 Masaaki Takabatake 高畠 昌明 内閣府 地方創生推進室 参事官
 Counselor, Office for promotion of Overcoming Population Decline and Vitalizing Local Economy in Japan, Cabinet Office

東北大学 電気工学科 卒業

Graduated from Tohoku University (faculty of electrical engineering)

1988年4月

通商産業省 入省

1988 Entered Ministry of International Trade and Industry

2005年6月

外務省 在ウィーン国際機関 日本政府代表部 参事官

2005 Counselor, Permanent Mission of Japan to the International Organizations in Vienna, Ministry of foreign affairs

2009年7月

経済産業省 貿易経済協力局 貿易管理部 安全保障貿易国際室長

2009 Director, Office of International Affairs for Security Export Control, Trade Control Department, Trade and Economic Cooperation Bureau, Ministry of Economy, Trade and Industry.

2011年 4月

内閣府 原子力災害対策本部 原子力被災者生活支援チーム 参事官

2011 Counselor, Team in Charge of Assisting the Lives of Disaster Victims, Nuclear Emergency Response Headquarters, Cabinet Office

2012年8月

経済産業省 近畿経済産業局 地域経済部長

2012 Director-General, Economic Policy Department, Kansai Bureau, Ministry of Economy, Trade and Industry

2015年7月

内閣府 地方創生推進室 参事官

2015 Counselor, Office for promotion of Overcoming Population Decline and Vitalizing Local Economy in Japan, Cabinet Office



Naoto HISAJIMA

- 1986.4. Entered the Ministry of Foreign Affairs of Japan (MOFA)
- 1989.7.~ Worked in the Embassy of Japan in Singapore, Economic Cooperation Bureau, North American Affairs Bureau, Asian Affairs Bureau, MOFA
- 2000.7. First Secretary and Counselor, Embassy of Japan in the Netherlands
- 2003.7. Counselor, Embassy of Japan in Zambia
- 2005.7. Director, Climate Change Division, MOFA
- 2008.7. Director, United Nations Policy Division, MOFA
- 2010.2. Minister, Embassy of Japan in France
- 2012.7. Minister, Permanent Representative of Japan to the United Nations
- 2015.1. Counselor, Cabinet Secretariat

1-11_Fira Barcelona_Mr. Luis Gomez CV 未着

略歴 大塚隆志(Takashi Otsuka) イクレイ日本 事務局長 (Director, ICLEI Japan Office)



Before joining ICLEI as the Director of ICLEI Japan Office in April 2015, Takashi Otsuka served as Deputy Programme Managing Director at the Institute for Global Environmental Strategies (IGES), and has been responsible for the overall planning and coordination of IGES's research and strategic operations. He started his professional career with IGES in 1999 by leading several multi-country comparative research projects on environmental consciousness and behavior. From 2004 to 2006, he spent two years at UNEP headquarters in Nairobi as Task Manager for developing/managing GEF projects focusing on Asia and Pacific region.

1999 年に(公財)地球環境戦略研究機関(IGES)に入所、アジア諸国を対象とした環境意識比較研究プロジェクト等に従事。2004~2006 年には、国際連合環境計画(UNEP)に出向し、地球環境ファシリティー(GEF)調整局アジア太平洋地域担当官として本部ナイロビに勤務する。その後、IGES のプログラム・マネージメント・オフィスに所属し、副ディレクターとして、IGES 全体の研究及び戦略オペレーションに関する企画調整を担当。2015 年 4 月より現職。

■ Profile Toshiyuki Iwama



Present Occupation Executive Advisor to the Director General, JICA Infrastructure and Peacebuilding Department

(2) Academic background Master of Engineering, Tokyo Institute of Technology

(3) Employment Record

Organization	<u>Period</u>	Post Held
JICA	Nov. 2013 –	Executive Advisor to the Director General
JICA	Oct. 2010 – Nov 2013	Program Director for Kabul Metropolitan Area
		Development, Afghanistan
Ministry of Foreign Affairs	Mar 2009 – Sep 2010	Special Advisor, Economic Cooperation Bureau
JICA	Sep 2006 -Mar 2009	Director, Grant Aid Management Department
		and Economic Infrastructure Department
JICA	May 2004 —Sep 2006	Deputy Resident Representative, United
		Kingdom Office
JICA	Dec 2001 —May 2004	Deputy Resident Representative, Egypt Office
JICA	${ m Oct}\ 1998 - { m Dec}\ 2001$	Deputy Director, Grant Aid Management
		Department
World Bank	Mar 1995 —Oct 1998	Transport Economist, Africa Department
JICA	Apr 1992 —Mar 1995	Staff Member, Grant Aid Study Department
Ministry of Construction	Apr 1990 —Mar 1992	Technical Official, Kanto Regional Construction
		Bureau
JICA	Apr 1987 —Mar 1990	Staff Member, Social Development Study
		Department, Mining and Industry Cooperation
		Department

JFEエンジニアリング株式会社 海外統括本部 部長代理 高橋 元



1990年一橋大学商学部卒業。 1990年4月に日本鋼管株式会社(現JFEエンジニアリング株式会社)に入社。 工場生産管理、水処理プラント営業、国内営業企画、総務、秘書、国内支店等を経た後、 2011年よりインドネシア現地法人にて会社運営と営業企画を担当。 2013年4月より海外本部東南アジア事業部、2015年4月より海外統括本部部長代理(現職)。 官庁・自治体・国際機関との連携による案件形成企画業務を担当。

Gen Takahashi Deputy General Manager, Global Business Development, Overseas Business Sector, JFE Engineering Corporation

Gen Takahashi joined Nippon Kokan Ltd. (present JFE Engineering Corporation) in April 1990.

After many years' experience in various business fields in this Company; production controlling at factory, marketing for sewage treatment plant project, management of sales branch, administration and secretariat of the company, etc., he has worked for management and business development as a Director of PT. JFE Engineering Indonesia (subsidiary company of JFE Engineering) in 2011 and 2012.

Since April 2013, he has been in charge of global business development with collaboration with ministry, local government, international organizations, etc..

1-15_World Bank_Mr. Daniel A. Levine CV 未着

Professor, DR, Masazumi AO

Yokohama City University (YCU)

[Position]

- Director, Global Cooperation Institute for Sustainable Cities
- Professor, Division of Global Urban and Regional Studies Association of International Arts and Science
- E-mail: blue@yokohama-cu.ac.jp

Personal Data

Education: Graduate School of Environmental Studies, Nagoya University

- ✓ Doctoral Degree in Environmental Studies, Nagoya University
- Major Area of Experience:

2010 – Professor, Yokohama City University

2007 –2010. Professor, Nagoya University: Research Strategy & Promotion Office. Graduate school of environmental studies, Environmental Systems and Planning

Nationality: Japanese

[Research Activities]

I research tackles the border less issues regarding air, sea water, and urban wastes (3R: sound material cycle policy). As for the research fields, I specialize in the advancement of preventive environmental policy aimed at checking the causal agents for the environmental pollution, and in the possibilities of resource circulation and regional (multinational) environmental collaboration. The target regions of my study are: the Baltic Sea Region (Denmark, Finland, Sweden, Germany, Estonia, Latvia, Lithuania, Russia, and Poland, among others) and the East Asia (China, Vietnam, Philippine, Thailand, Indonesia, Malaysia and Japan), United States America.

- Research title 1: Model for environmental cooperation in Asia; I suggest Bottom up approach and Top down approach as the ways of environmental protection. Problems the city can solve should be done in the city itself. Bottom up approach is the model for citizens; analyzing environmental load and socio-economic factors, development and implementation of method for environmental cooperation at the grass roots level, and promotion of environmental education. Top down approach is for city and companies. Problems that cannot be solved by the city should be resolved in a national unit. Through making an environmental action plan which is a focus on facilitating international cooperation and index of assessment on capability. Cities and companies share responsibility on environment conservation, make environmental policy and its action plan, and also thrive on technology transition and supporting human innovation.
- Research title 2: Proposal for regional system of 5R society; 5R are "Reduce, Reuse, Recycle, Refine, Rebuy". 3R Reduce reuse recycle has now become common in Asian developing countries. 5R consists of the five processes of waste management. Refine and rebuy which is more common in the private sector is the explanation of 5R in the standpoint of the private sector. Reduce is to aim for the zero emission or reduction of energy usage. Reuse includes consideration of LCA and interchangeability. Recycle contains the design for easy to scrap products and process of recycling. Refine means reducing the use of composite materials and select to use recycled resources. Rebuy is to use the reused and recycled products. Municipalities and citizens are mainly responsible for the former three. The latter two are more related to the private sector side. When we try to promote 5R, we face difficulties: the high cost of the system. It mainly comes from the vicious cycle of low needs, and high cost. To cut this cycle, we need to work on promoting the technological capacity of 5R at each company; creation of smart government, company and consumers; and change the sense of value of us: Ecology is more important than economy when considering waste management. We thinking about "Cradle to Cradle Model "in Asia Society.

