

FOURTH REGIONAL 3R FORUM IN ASIA AND THE PACIFIC

The Fourth Regional 3R (reduce, reuse, recycle) Forum in Asia and the Pacific took place in Ha Noi, Viet Nam, on 18-20 March 2013, addressing the theme of “3Rs in the Context of the Rio+20 Outcomes – The Future We Want.” The meeting was organized by the UN Centre for Regional Development (UNCRD), the Ministry of Environment, Japan, and the Ministry of Natural Resources and Environment (MONRE), Viet Nam.

The meeting addressed waste minimization, reuse and recycling issues in a wide range of sectors, including agriculture, industry and energy. Delegates considered how 3R can contribute to the implementation of commitments from the UN Conference on Sustainable Development, which was held in Rio de Janeiro, Brazil, in June 2012 (Rio+20).

Around 300 participants attended the Forum, including government representatives from the following 30 Asia-Pacific countries: Australia, Bangladesh, Bhutan, Brunei Darussalam, Cambodia, China, Fiji, India, Indonesia, Japan, Kiribati, the Republic of Korea, Lao People’s Democratic Republic (PDR), Malaysia, the Maldives, the Marshall Islands, the Federated States of Micronesia, Mongolia, Myanmar, Palau, Papua New Guinea, the Philippines, Samoa, Singapore, the Solomon Islands, Thailand, Timor-Leste, Tonga, Tuvalu and Viet Nam. Other participants included members of the 3R Forum’s Subsidiary Expert Group, international resource persons, representatives from various UN and international organizations, scientific and research organizations, nongovernmental organizations (NGOs), and the private and business sector, local observers and waste management professionals. NGOs from Japan and Viet Nam jointly organized a side event entitled the NGO Forum Citizens’ Partnership and Cooperation towards a Zero Waste Society.



Vietnamese dancers during a performance for Forum participants

First Meeting of the Regional 3R Forum in Asia: The inaugural meeting was held on 11-12 November, 2009, in Tokyo, Japan, with delegates participating from 18 Asian countries. Participants adopted the Tokyo 3R Statement, which positioned the work of the Forum as building upon Agenda 21 adopted at the 1992 UN Conference on Environment and Development, held in Rio de Janeiro, Brazil, and the Johannesburg Plan of Implementation adopted at the World Summit on Sustainable Development in September 2002 in South Africa. The Tokyo 3R Statement also noted the Forum’s relevance in achieving the goals of the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal. The meeting identified a list of priority activities, welcomed the establishment of a Subsidiary Expert Group to provide substantive technical input to the Forum, and requested the UNCRD to take the lead in facilitating the

A BRIEF HISTORY OF THE 3R FORUM IN ASIA

The East Asia Environment Ministers Meeting, held in October 2008, in Ha Noi, Viet Nam, established the Regional 3R Forum in Asia as a platform to promote 3R in Asian developing countries. Prior to this, the 3R concept had been supported at various international conferences and meetings, including the G8 Sea Island Summit in the United States in June 2004, the Ministerial Conference on the 3R Initiative in Tokyo in April 2005, and the G8 Environment Ministers Meeting in Kobe, Japan, in May 2008. The new Forum was intended to serve as a framework for high-level 3R policy dialogue, technical assistance for country projects, and information sharing and networking for the promotion of 3R policies and practice in Asia.

IN THIS ISSUE

A Brief History of the Climate Investment Funds	1
Report of the Fourth Regional 3R Forum in Asia and the . . . Pacific	2
Upcoming Meetings	12
Glossary	13



work of the Forum. Japan officially submitted the Tokyo 3R Statement to the 18th session of the UN Commission on Sustainable Development (CSD-18).

Second Meeting of the Regional 3R Forum in Asia: This meeting was held from 4 to 6 October, 2010, in Kuala Lumpur, Malaysia, on the theme “3Rs for Green Economy and Sound Material-Cycle Society.” The meeting contributed to greater understanding and consensus around policy options, and illustrated innovations and achievements in 3R in the region. The meeting contributed regional input to discussions on waste management at CSD-19 in New York, US, in 2011, and to preparations for the Rio+20 Conference. Malaysia submitted the Chair’s Summary of the meeting to CSD-19.

Third Meeting of the Regional 3R Forum in Asia: This meeting, held from 5 to 7 October 2011 in Singapore, was organized on the theme “Technology Transfer for Promoting the 3Rs – Adapting, implementing and scaling up appropriate technologies.” The meeting produced a set of recommendations linking waste management with resource efficiency in agriculture, industry, energy and other sectors, as a means of transitioning towards a resource-efficient and green economy. Singapore submitted the Chair’s Summary of the meeting and recommendations of the Forum as an official input to the Rio+20 process.

UNCSD (Rio+20): The outcome document from the UNCSD attached significant importance to the 3Rs, calling for greater resource efficiency and waste reduction as part of efforts towards achieving a green economy in the context of sustainable development and poverty eradication. The outcome document committed to applying the 3Rs in the context of sustainable cities (paragraph 135) and chemicals and waste (paragraph 218).

REPORT OF THE FOURTH REGIONAL 3R FORUM IN ASIA AND THE PACIFIC

OPENING CEREMONY

OPENING STATEMENTS: On Monday morning, Do Nam Thang, Deputy Director, Institute of Science for Environment Management, MONRE, Viet Nam, introduced the speakers and welcomed delegates. Nguyen Minh Quang, Minister of Natural Resources and Environment, Viet Nam, highlighted challenges facing the country, following a quarter of a century of modernization and an “open door” economy. He said that while economic growth has been maintained at a high level and poverty has been reduced, the country is facing depletion of natural resources and threats to human health and sustainability, due in part to lack of waste management. He highlighted Viet Nam’s national strategy on environmental

protection, and its green growth strategy that outlines a vision up to 2050. He expressed appreciation for the support and cooperation of other countries and international organizations, especially Japan’s work in pioneering 3R initiatives in the region. He looked forward to the 3R declaration to be issued by delegates, as a milestone towards achieving the outcomes agreed to at the Rio+20 Conference.

Shinji Inoue, Parliamentary Senior Vice-Minister of the Environment, Japan, greeted participants, recalling Japan’s active engagement in the promotion of 3R policies since the 2004 G8 Sea Island Summit. He highlighted the impacts of rising growth rates in the Asia-Pacific region and the need to establish effective policies for waste reduction and management, and noted challenges arising from climate change and biodiversity loss. He asserted that the Ha Noi 3R declaration will create a significant platform to develop an efficient local and national network involving citizens and governments in promoting 3R policies.

Chikako Takase, Director, UNCRD, expressed appreciation to the Ministry of Natural Resources and Environment, Viet Nam, for hosting the Forum. She noted the rapid growth rate of Asian cities, and the consequent calls for global strategies to cope with unsustainable patterns of consumption and production. Takase also recalled the vulnerabilities of small island developing states (SIDS) and underscored international commitments recognizing the need to implement efficient 3R policies. In conclusion, she highlighted that agreeing on the Ha Noi 3R declaration would provide a remarkable opportunity for Asia-Pacific countries to undertake concrete actions and regional cooperation.

Pratibha Mehta, UN Resident Coordinator in Viet Nam, commended Viet Nam’s achievements, including solid waste recycling efforts and its green growth strategy, which will help develop markets for recycled products. She highlighted further needs in the region, such as: better implementation practices; guidelines for management of hazardous waste; market mechanisms to promote sustainable industrial production; and changes in consumer behavior, to avoid and reduce waste. She expressed hope that a common framework for sustainable 3R goals would be adopted at the Forum, as an important basis for countries to develop their own policies and programmes in the move towards a green economy.

ADDRESS BY GUEST OF HONOR: Nguyen Thien Nhan, Deputy Prime Minister, Viet Nam, welcomed delegates and noted the significance of the 3R Forum in the context of the outcomes of the Rio+20 Conference. He highlighted the global economic crisis, including slower economic growth in Asia, and recognized the need to reconsider the previous growth model, in order to prioritize quality of life.



Pratibha Mehta, UN Resident Coordinator in Viet Nam



Nguyen Thien Nhan, Deputy Prime Minister, Viet Nam

In particular, he underscored the potential of small-scale environmental solutions that could be recognized and improved for mass application.

He noted that integrated waste management is one of the important challenges in achieving a green economy, and affirmed Viet Nam's willingness to join hands with the international community to promote green growth and achieve the Millennium Development Goals (MDGs). He underscored Viet Nam's efforts towards reducing greenhouse gas emissions, by creating environmentally-friendly production that avoids waste and converting waste to energy. He provided the example of improvements in pig farming in one province in northern Viet Nam, where wood shavings are used to convert pig waste to compost, thus reducing odor, saving water and energy, and avoiding river pollution.

He affirmed the value of the series of 3R Forums convened in Asia in previous years, and urged delegates to adopt "even 1 or 2Rs" towards common global efforts for sustainable development.

KEYNOTE ADDRESS: Prasad Modak, President, Environmental Management Centre (EMC), presented on 3R policies in the context of cities of the 21st Century. He stressed that consumption patterns in the Asia-Pacific region have changed since the 1970s and 1980s, and underscored the impacts of migration flows to urban centers. He highlighted challenges arising from new waste streams, including e-waste, end-of-life vehicles, hazardous domestic waste and biomedical waste. Modak noted obstacles to efficient 3R policies, including poor legal enforcement of legislation, low technical capacities of urban local bodies (local government), infrastructure inefficiencies, financial constraints and low levels of technological innovation. He argued that, to overcome these difficulties, the private and informal sectors must be "part of the solution," and "taming consumption" an ultimate goal.

ADOPTION OF THE AGENDA: On Monday morning, Vice-Minister Tran Hong Ha, MONRE, Viet Nam, introduced the agenda for the conference, which delegates adopted without comment.

PLENARY SESSION 1: TOWARDS ACHIEVING THE RIO+20 OUTCOMES: "THE FUTURE WE WANT" – OPPORTUNITIES THROUGH 3RS AND RESOURCE EFFICIENCY MEASURES

Joseph Hui, National Environment Agency, Singapore, chaired the session on Monday morning, and Choudhury Rudra Charan Mohanty, Environment Programme Coordinator, UNCRD, facilitated the discussions.



Prasad Modak, Executive President, Environmental Management Centre



Heinz Schandl, CSIRO

PRESENTATION: Heinz Schandl, Commonwealth Scientific and Industrial Research Organisation (CSIRO), presented on 3Rs and resource-efficiency measures, stressing that sustainable resource use will be instrumental to economic development in the Asia-Pacific region. He highlighted regional trends, including three billion additional middle-class consumers by 2030, an 80% rise in steel and cement demand in that time frame, and increased spending on natural resource subsidies. He emphasized that changes in policies in the housing, transport, energy and food sectors have the potential to deliver 75% savings in resource use, and recommended that countries focus on making improvements in a small number of activities.

Schandl suggested a number of transformational policies, including: "green budgets" and tax reform; pricing and capping the use of natural resources at source; paying productivity gains in increased recreation time, rather than only in incomes; replacing resource subsidies; and investing in "production service systems," such as eco-industrial parks. He proposed that increased gains in resource efficiency could be invested in quality-of-life improvements, such as direct contributions to low-income households and carpool facilities at private apartments.

PANEL DISCUSSION: Facilitator Mohanty introduced the panelists. He remarked on the impacts of macroeconomic policies on waste management, and asked about the level of political commitment to invest in 3R strategies.

Manju Raina, Director, Ministry of Environment and Forests, India, mentioned actions taken in India to address environmental protection, and emphasized the relevance of establishing a national environmental policy that will mainstream sustainable development goals into all development activities.

Matthew Gubb, Director, UN Environment Programme International Environmental Technology Centre (UNEP-IETC), said that solutions to the present unsustainable patterns of consumption do exist, and mentioned agriculture biomass as an opportunity to transform waste into energy.

Vijay Joshi, Senior Environment Specialist, Asian Development Bank, emphasized the need to upscale successful initiatives and further involve the private sector in learning about 3R policies and measures, warning against a lack of foresight.



L-R: Vijay Joshi, Asian Development Bank; Peter Börkey, Organisation for Economic Co-operation and Development (OECD), Kotaro Kawamata, Ministry of the Environment, Japan; Jerome Stucki, UN Industrial Development Organization (UNIDO); Session Chair Joseph Hui, Deputy CEO, National Environment Agency, Singapore; Session Co-Chair Tran Hong Ha, Vice-Minister of Natural Resources and Environment, Viet Nam; Choudhury Rudra Charan Mohanty, UNCRD; Matthew Gubb, Director, UN Environment Programme-International Environmental Technology Centre (UNEP-IETC); Manju Raina, Ministry of Environment and Forests, India; and Heinz Schandl, CSIRO

Peter Börkey, Environment Directorate, Organisation for Economic Development and Co-operation (OECD), reflected on the OECD's experience in supporting the decoupling of economic growth from waste production in developed countries. He argued that the "extended producer responsibility" (EPR) concept has been fundamental in advancing 3R policies.

Komaro Kawamata, Director, International Cooperation Office, Ministry of the Environment, Japan, recommended city-to-city cooperation on thematic issues as a way to raise awareness and motivate governments to improve resource-efficiency measures. He gave the example of a partnership between Surabaya, Indonesia, and Kitakyushu, Japan, which has introduced a composting practice in 80,000 Surabaya households.

In the ensuing discussion, a delegate from Bangladesh highlighted the need for "process champions" to provide a framework of action to guide governments.

Jerome Stucki, UN Industrial Development Organization (UNIDO), recommended raising awareness among businesses, including small and medium enterprises (SMEs), that resource-efficiency measures will be to their benefit. He said that while many companies have adopted corporate social responsibility (CSR) policies, "we need a return of RCS – return of common sense."

Mohanty raised the issue of the growing amount of plastic waste, which directly affects SIDS. A participant noted ongoing initiatives within the Association of Southeast Asian Nations to cope with this challenge, and emphasized that SIDS require a special strategy, due to their greater vulnerability.

In concluding the panel discussion, session Chair Hui stressed opportunities to address the waste problem and called for concrete action and commitment from participants, and Vice-Minister Hong Ha summarized the discussion.

PLENARY SESSION 2: ADDRESSING NEW AND EMERGING ISSUES – POLICY, INSTITUTIONAL AND TECHNOLOGICAL CONSIDERATIONS

Masnellyarti Hilman, Deputy Minister, Ministry of Environment, Indonesia, chaired this session on Monday afternoon, and Ibrahim Shafii, Basel Convention Secretariat, facilitated the debate.

PRESENTATIONS: Matthew Gubb, UNEP-IETC, underscored that two billion tons of waste are produced every year, the same amount as the annual global production of cereal. He also said that the growing number of used tires can increase the problem of fires, and become breeding areas for mosquitoes, causing a public health problem. He provided evaluations of the three main options of recycling, or burning or burying waste, and stressed that the availability of financing remains the most pressing challenge.

Dao Xuan Lai, Head of the Sustainable Development Cluster, UN Development Programme (UNDP), Viet Nam, presented on waste management approaches and technologies for persistent organic pollutants (POPs). He outlined the international agreements covering POPs and Viet Nam's policies, including the adoption of a national programme for pollution management and environmental improvement. Dao explained that the main sources of POPs in Viet Nam are dioxins stemming from the war years, as well as pesticides, polychlorinated biphenyls (PCBs), mercury and e-waste. He described plans to treat contaminated soil in more than 1,500 sites, and to conduct mechano-chemical destruction of POPs, using a ball mill.

In conclusion, he recommended that real-time screening or testing is needed for evaluation of untreated and treated soils, and that site contamination should be taken into account when planning future land use.

PANEL DISCUSSION: Prasad Modak, EMC, highlighted that "the real push for 3R" happens once the consequences of growing waste are understood. He called for better data and assessment, and the setting of benchmarks.

Sunee Piyapanpong, Deputy Director-General, Pollution Control Department, Ministry of Natural Resources and Environment, Thailand, reported that 3R is being mainstreamed into Thailand's national strategy. She noted, however, the mismatch between the growth in recycling practices and the lack of market opportunities for recycled products.

Bruce Edwards, Waste Policy Branch, Department of Sustainability, Environment, Water, Population and Communities, Australia, explained the importance of involving both local communities and the private sector in 3R strategies.



Jinhui Li, Executive Secretary, Basel Convention Coordinating Center for Asia and the Pacific

Jinhui Li, Executive Secretary, Basel Convention Coordinating Center for Asia and the Pacific, highlighted that technical solutions require information, knowledge and technology, stressing that technological cooperation is, therefore, crucial.

Mariyam Shakeela, Minister of Environment and Energy, the Maldives, presented on the unique challenges faced by SIDS. She highlighted that her country is spread across many islands, and that a major proportion of their waste is generated from the tourism industry. She described a current World Bank project with the Government of the Maldives to develop a solid waste management center on one island, where waste from resorts on other islands can be sent for processing.

Li noted that different technologies are applied to different waste streams, and that the cost of recycling remains a big challenge, reiterating the call for technological cooperation and technology transfer. Gubb said that mainstreaming of waste management should be seen as a cross-cutting issue.

On promoting recycle-based societies, Hiroki Hashizume, Tama University, Japan, highlighted the Ministerial Forum on Health and the Environment in Southeast and East Asian countries as an example of discussions that support the sharing of best practices and the creation of policies that respond to countries' individual situations.

On assistance to SIDS, Shakeela highlighted the need to create awareness among communities of their shared responsibility for waste management and called for capacity-building support.

Edwards commented that businesses are interested in the savings and economic returns from increased resource-efficiency measures. He said that while Australia has landfill space, this is not a feasible solution due to "not in my backyard (NIMBY)" concerns among local communities. He concluded that models are not necessarily transferable from one environment to another.

A participant asked about UNDP's efforts to address the issue of transboundary waste, including marine litter. Dao mentioned efforts to promote cross-border awareness between Viet Nam and China and to restrict pesticide imports. Gubb mentioned, as other examples, the Global Partnership on Marine Litter, and the Honolulu Declaration of 2012, in which the Partnership for Observation of the Global Oceans agreed to cooperate to better understand the impacts of climate change and oceans.

Börkey mentioned the OECD's work on waste containing nanomaterials, highlighting that information about it is available to non-OECD members. Papua New Guinea suggested that policy guidelines be developed for waste management in relation to environmental protection.

Session Chair Hilman summed up the discussion, acknowledging that changing the paradigm "from trash to cash" is important but not easy, citing the need for incentives at the market level and for labeling of recycled products. She reiterated the need for international cooperation and the recognition of different waste management challenges and constraints. She noted the calls for technology transfer, for example, to convert plastics to energy, and for technology transfer and guidelines to support SIDS.

PLENARY SESSION 3: TOWARDS A RESOURCE EFFICIENT AND ZERO WASTE SOCIETY – 3R TOOLS FOR GREEN INDUSTRY

Arpah Abdul Razak, Secretary-General, Ministry of Housing and Local Government, Malaysia, chaired this session on Monday afternoon. She underscored the need to recognize that waste represents resources that need to be managed effectively. Jerome Stucki, Water Management Unit, Environmental Management Branch, UNIDO, facilitated the discussions and also made the first presentation.

PRESENTATIONS: Presenting on UNIDO's Green Industry Platform, a high-level partnership of 25 governments, 68 businesses, and 44 international and civil society organizations, Stucki said the challenge is to bring the Platform closer to civil society, and for it to be rooted in concrete activities. He affirmed that partners are committed to improving resource efficiency, raising awareness, sharing information, partnering and promoting best practices.

Ma Rong, Deputy Counsel, National Development and Reform Commission, China, presented on progress on China's Circular Economy initiative. She said that models of a circular economy have been developed based on real-life experiences in China since 2005, highlighting the selection of pilot enterprises in these efforts, including manufacturing enterprises and cities.

Nguyen Van Tai, Director-General, Institute of Strategy and Policy on Natural Resources and Environment, MONRE, Viet Nam, presented on Viet Nam's efforts on integrated solid waste management towards a green economy. He outlined three points for greening the national economy: accelerating economic development based on ecosystems, including plantations, aquaculture and ecotourism; investing in low-carbon, environmentally-friendly technologies; and developing the environmental services sector and recycling industries.



Nguyen Van Tai, Director-General, Institute of Strategy and Policy on Natural Resources and Environment, MONRE, Viet Nam

He said the government would: prioritize the prevention and reduction of solid-waste generation; promote at-source waste sorting; and accelerate solid-waste reuse and recycling efforts.

Sadao Wasaka, Executive Director, New Energy and Industrial Technology Development Organization (NEDO), Japan, discussed new systems for moving towards a sustainable low-carbon society. He described the role of his organization in promoting projects capable of combining efforts between industry, academia and governments. He provided an example of NEDO's work in Viet Nam on a project for an industrial waste power generation system, which aims to reduce waste volumes by incinerating industrial waste. The project, running from 2012 to 2014, has the capacity to tackle one-third of the total industrial waste in Ha Noi or around 75 tons per day.

PANEL DISCUSSION: Facilitator Stucki raised the question of how to enhance the involvement of local communities. Sunita Yadav, Department of Industrial Policy and Promotion, Ministry of Commerce and Industry, India, shared India's experiences in creating innovative methods to engage citizens, mentioning lecture centers.

Pongthep Jaru-ampornpan, Industrial Waste Management Bureau, Department of Industrial Works, Ministry of Industry, Thailand, noted that Thailand is part of the UNIDO Green Industry Platform, which provides opportunities to measure concrete progress.

Thein Aung, Deputy Minister, Ministry of Industry, Myanmar, presented his government's efforts on 3R, highlighting law enforcement, wastewater treatment and involvement of local committees. He said that solid waste management programmes in Yangon and Mandalay would be expanded to cover a wider area.

Vismanda Osorio, Environmental Management Bureau, National Capital Region, Department of Environmental and Natural Resources, the Philippines, outlined components of her government's 3R policy, and its efforts to harmonize policies introduced by international partners with those of local agencies. She highlighted the importance for governments to make informed decisions regarding the procurement of certified sustainably produced products, and the need to develop incentive programmes for suppliers of environmentally-sound products and services.

In the ensuing discussion, Bhutan called for collective efforts to encourage the development of standard soft drink containers that can be reused, and to oblige companies to recover a percentage of their containers. He also proposed creating a platform for joint research towards reducing waste at source, and emphasized the importance of education on this topic.

Jinhui Li, Basel Convention Coordinating Center for Asia and the Pacific, highlighted the need to counter common perceptions that recycling is a "dirty" industry.

An industry representative highlighted the introduction in Japan of a "green bidding system" that has dramatically increased the reuse and recycling of demolition waste.

In summary, Session Chair Arpah Abdul Razak affirmed the importance of the UNIDO Green Industry Platform, and highlighted the need to green the entire value chain. She emphasized that a "zero waste society" requires efforts on the part of all stakeholders.

KEYNOTE ADDRESS: 3RS SOCIETY IN ASIA – LESSONS LEARNED FROM THE 2011 GREAT EAST JAPAN EARTHQUAKE AND TSUNAMI

On Tuesday morning, Masaru Tanaka, Tottori University of Environmental Studies, Japan, presented on Lessons Learned from the 2011 Great East Japan Earthquake and Tsunami. He

noted that in 2050, 22.3 billion tons of solid waste will be generated, suggesting that another "big tsunami" of waste is coming. Highlighting the impacts of mixed schemes for the collection and disposal of waste on the quality of air, water and public health, he observed the challenges of inadequate legal and regulatory frameworks, as well as the general lack of technical, financial and management capacity of local governments to deal with solid waste management. He emphasized that 3R is also about conservation of resources, and underscored the need for political leadership. In conclusion, Tanaka proposed the creation of an IP3R, an international panel on 3R based on the International Panel on Climate Change model.

PLENARY SESSION 4: PERFORMANCE INDICATORS IN 3RS AND RESOURCE EFFICIENCY: MONITORING THE PROGRESS OF 3R EFFORTS TOWARDS A GREEN ECONOMY

Muhammad Lutfi Abdullah, Permanent Secretary, Ministry of Development, Brunei Darussalam, chaired this plenary session on Tuesday morning, and Pariatamby Agamuthu, University of Malaya, facilitated the discussions.

PRESENTATION: Yasuhiko Hotta, Institute for Global Environmental Strategies (IGES), on behalf of the Asia Resource Circulation Policy Research Group, presented an overview of the session and introduced a series of 3R policy indicator fact sheets. He emphasized the relevance of indicators to the Ha Noi 3R declaration currently being prepared, relating this to the goals, targets and indicators mentioned in the Rio+20 outcome document for measuring progress towards sustainable development and a green economy. He highlighted examples of existing national targets and indicators in Asia, including Viet Nam's National Strategy for Integrated Management of Solid Waste up to 2025.

Hotta described challenges to establishing effective indicators as: unavailable or inaccurate data; lack of standard methodology and definitions; and lack of data about existing policies and incentives. He called for the setting of clear policy priorities. Hotta also mentioned possible future work on 3R, including the potential for a training programme under the Japan International Cooperation Agency (JICA), the UN Economic and Social Commission for Asia (UN-ESCAP) Statistical Training Centre, and other UN organizations, such as UNEP and UNCRD.



Session Chair Muhammad Lutfi Abdullah, Permanent Secretary, Ministry of Development, Brunei Darussalam



Pariatamby Agamuthu, University of Malaya

PANEL DISCUSSION: Agamuthu suggested that different indicators might be applicable to different sectors. Li discussed circular economy indicators, outlining different types of indicators to reflect reductions in consumption and waste emissions, and comprehensive utilization of resources. He highlighted efforts to popularize the “green consumption mode” of living, and the need to build capacity.

Peter Börkey, OECD, emphasized the importance of data that is comparable across countries. He provided an overview of the main categories of OECD indicators, including on economic productivity, trade interaction, and efficiency management related to the use of natural resources. On this last point, he said that present indicator proposals still disregard how countries are using their natural resources when measuring economic growth. He said that OECD is working to help countries with this issue.

Masaru Tanaka, Tottori University of Environmental Studies, said that managing solid waste is also beneficial for environmental conservation, and that 3R is the key to an efficient society.

Heinz Schandl, CSIRO, raised the problem of a “shopping list” of indicators, meaning that an excessive number of indicators could cause competition and not necessarily provide comparability. He argued that the most successful indicators are those that are framed within a national context, and can be monitored. In conclusion, he said that the leadership of international actors, such as international organizations, is relevant to helping countries take the initial steps.

Vincent Jugault, Senior Specialist in Environment and Decent Work, International Labour Organization (ILO), emphasized synergies between environmental and labor standards, and the potential for green jobs to be created through expansion of the waste management sector. He called for any investments in 3R to consider indicators on eliminating child labor, improving workers’ skills and productivity, and promoting occupational health and safety. He noted the involvement of children in recycling industries in Asia, highlighting that half of the world’s unemployed youth are also in this region. Jugault also stressed the need for greater efforts to prepare the workforce for a green economy and green jobs, and to promote synergies between environmentally sound waste management, and occupational health and safety concerns.

In the ensuing discussion, a delegate described the system for monitoring industry performance in Indonesia, in which the government awards colors to companies for full compliance with regulations (blue), 3R practice (green) and CSR (gold), with the data being made publicly available. On solid waste management, she highlighted the national target of reducing waste in cities by 7% a year.

The Marshall Islands cautioned against introducing approaches that are too complex, calling for “simple and practical” models.

In conclusion, session Chair Lutfi Abdullah noted that performance indicators are key to advancing 3R strategies.

PLENARY SESSION 5: COUNTRY-COUNTRY COOPERATION IN THE PROMOTION OF 3RS IN ASIA

Ryutaro Yatsu, Vice-Minister, Ministry of the Environment, Japan, chaired this session on Tuesday morning, and Kazunobu Onogawa, IGES, facilitated the discussions.

PRESENTATION: Vice-Minister Yatsu presented on Japan’s regional contribution to the promotion of 3R, and emphasized positive outcomes of country-country bilateral cooperation. He described the Climate and Clean Air Coalition (CCAC), launched on 16 February 2012 by 27 states and 28 non-state partners, who have committed to specific initiatives for solid waste reduction. He encouraged participants to join the Coalition, and informed them of the existence of a Japanese fund to support countries in conducting 3R studies in the region.

PANEL DISCUSSION: Nguyen Thanh Lam, Viet Nam Environment Administration, MONRE, presented on 3R activities in Viet Nam, noting mixed results from pilot activities for separation of waste at source. He said that waste pickers deal with around 15% of waste, while the rest of it goes to landfills. He highlighted current cooperation with IGES and the Ministry of the Environment in Japan to develop a 3R programme in Viet Nam, including research, 3R activities at the provincial level, improvement of organic fertilizers used in agriculture, and encouragement to use recycled products.

Nadzri Yahaya, Director-General, National Solid Waste Management Department, Ministry of Housing and Local Government, Malaysia, discussed the development of a national strategic plan for food waste management in Malaysia. He emphasized the importance of quantitative data and ground-level feedback as a basis for policy design.

Muhammad Maududur Rashid Safdar, Director, Department of Environment, Ministry of Environment and Forests, Bangladesh, provided an overview of Japan’s contribution to international aid, and promoted CCAC as a model for regional collaboration, saying it is also supported by UNEP.

Facilitator Onogawa invited the panelists to comment on: issues and challenges in the process of developing a 3R strategy and policy; how they are applying the “polluter pays” principle; and implementation challenges.

Masnellyarti Hilman, Deputy Minister of Environment, Indonesia, highlighted a paradigm shift towards considering waste as resources. She presented Indonesia’s development of community recycling centers as “waste banks” that combine the concepts of banking and community-based waste management to create jobs and profits for local people. She also noted challenges in the treatment of e-waste, including illegal imports and mixing with other kinds of metal scrap. She highlighted the value of international cooperation, including South-South cooperation, and the need for capacity building for developing countries to implement the Basel Convention.

Yoichi Toyama, Office of Sound Material-Cycle Society, Waste Management and Recycling Department, Ministry of the Environment, Japan, said that countries should seek ways to promote 3R in their own contexts and situations.

Hilman referred to the Indonesian case to underscore the importance of establishing 3R targets for each ministry and to evaluate progress. Facilitator Onogawa stressed the importance of incentives for stakeholders to also implement 3R policies. Safdar said that to apply the “polluter pays” principle, those responsible for pollution must first be identified.

Facilitator Onogawa summarized the panel discussion, saying that country-to-country partnerships are necessary and that Asia is relatively advanced with regard to 3R. He also noted the relevance of city-to-city cooperation in complementing bilateral cooperation between countries.

In closing, Vice-Minister Yatsu commented that 3R can boost a green economy. He said recycling, in particular, represents a promising opportunity to create new markets, and that governments need to promote capacity building and an enabling institutional environment.

PARALLEL COUNTRY ROUNDTABLE DIALOGUES

Participants met in five parallel roundtables on Tuesday afternoon.

ROUNDTABLE 1: 3RS IN SMES AND INDUSTRIES:

Tran Dinh Thai, Ministry of Communication, Viet Nam, chaired this session, and Patrick J. Gilabert, UNIDO-Viet Nam, facilitated discussions. Delegates discussed why SMEs should adopt 3R approaches, how SMEs can adopt them and access the necessary technology for implementation, and what the international community can do to facilitate this process. They considered what policy and institutional frameworks would encourage SMEs and industries to move towards greater resource efficiency and lower carbon intensity. The group also considered ways that governments might cooperate to collectively raise capacity among SMEs for adopting 3R, including accessing information and financing.

ROUNDTABLE 2: 3RS IN AGRICULTURE AND THE RURAL SECTOR: Dasho Sonam Tenzin, Ministry of Works and Human Settlement, Bhutan, chaired the session, and Pariatamby Agamuthu, University of Malaya, facilitated discussions.

Delegates discussed how to promote the full-scale use of agricultural biomass and livestock waste to generate energy and reduce greenhouse gas emissions, as well as meet poverty reduction and sustainable livelihood aims, particularly in rural

areas. They also considered the benefits that 3R approaches can offer in reducing waste and losses in the food supply chain, while improving the quality and quantity of products reaching consumers.

ROUNDTABLE 3: 3RS FOR SUSTAINABLE AND RESILIENT CITIES: Joseph Hui, National Environment Agency, Singapore, chaired the session, and Ijaz Hossain, Bangladesh University of Engineering and Technology, facilitated discussions.

Hossain presented on “Cities and Climate Change Vulnerability.” He described greater cooling and water demands, spread of diseases that thrive in hot and damp environments, and urban heat island effects due to congested structures, bitumen roads and exhaust from motor vehicles and air conditioners.

Participants discussed what 3R policies and practices can contribute to the outcomes agreed to at the Rio+20 Conference, especially with regard to the revitalization of older cities and neighborhoods, quality of urban living, disaster risk reduction and resilience. They noted some successful examples, including Australia’s subsidies for solar panels and curbside recycling services for households, and Indonesia’s city beautification and community education initiatives. They acknowledged the importance of attaching a price to water and power resources, in order for consumers to recognize their value. In addition, they recognized that recycling practice follows market demand. They agreed that 3R should address the issue of healthcare waste through training and capacity building.

On policies and programmes, participants presented country experiences, such as India’s requirement for large urban developments to build their own sewage treatment facilities. They agreed on the need for central governments to play a strong role in technology transfer, and for public participation in community- and school-based activities. They also noted the need to consider end-of-life issues with materials, such as used tires and crushed glass, including steps to minimize the costs of transporting and recycling such materials.

Participants discussed child labor in the context of efforts to formalize the informal recycling sector. They debated whether child labor and general health and safety issues should be addressed primarily through labor and child rights policies, and whether 3R policies can play a role in ensuring, for example, protective clothing for those who work in the sector. They also discussed the value of local government reporting on 3R initiatives, with one participant suggesting that even pictorial



Dais of Roundtable One on 3Rs in SMEs and industries (L-R): Patrick Gilabert, UNIDO, Viet Nam; Session Chair Tran Dinh Thai, Deputy Director-General of the Department of Science, Technology and Environment, Ministry of Construction, Viet Nam; and Maryam Shater, UNIDO, Viet Nam

reports could be acceptable in the early stages, and another highlighting the importance of EPR in this context. They noted a trend for cement companies to provide an additional service to eliminate hazardous waste, which is used as a base fuel in their kilns.

Summing up, Chair Hui highlighted some general themes, including: creating local facilities for processing and treatment; promoting community ownership; considering upstream-downstream linkages, including through encouraging manufacturers to use less packaging; changing consumer behavior by imposing appropriate charges, such as for garbage disposal bags; formalizing the informal sector; developing regulations on e-waste and hazardous waste; and distinguishing between supply-side and demand-side measures.

ROUNDTABLE 4: MULTI-STAKEHOLDER PARTNERSHIPS IN ADVANCING 3RS AND RESOURCE EFFICIENCY: Tulga Buya, Vice-Minister of Environment and Green Development, Mongolia, chaired the session, and Lorenzo Santucci, UN-ESCAP, and Mohanty, UNCRD, co-facilitated the discussions.

Participants considered successful partnership models for advancing 3R and resource efficiency, and how these could be scaled up to the regional level. They discussed political and institutional barriers that could be overcome to attract investment in waste prevention and resource efficiency, including 3R technologies for managing e-waste, construction waste, agricultural and biomass waste, food waste, and plastics, industrial and hazardous waste.

ROUNDTABLE 5: 3RS AS THE BASIS FOR SUSTAINABLE WASTE MANAGEMENT IN SIDS:

Apisai Ielemia, Minister of Foreign Affairs, Trade, Tourism, Environment and Labour, Tuvalu, opened the session, and Sakurai Kunitoshi, Okinawa University, Japan, co-chaired and facilitated the session. Participants from Fiji, Kiribati, the Maldives, the Marshall Islands, the Federated States of Micronesia, Palau, Papua New Guinea, Samoa, the Solomon Islands, Timor-Leste, Tonga and Tuvalu attended the session, which was supported by representatives from the Basel Secretariat and the Japanese Technical Cooperation Project for Promotion of Regional Initiative on Solid Waste Management (J-PRISM) in Pacific Island Countries.

Shiro Amano, JICA, introduced the debate, presenting on achievements of J-PRISM. He recalled that the Pacific Islands risk no longer being “paradises,” as waste is increasingly challenging their environment. He noted that SIDS face common challenges, including: geographical isolation and

difficult access; limited land space; and economic dependency on other regions. He observed that recycling practices do not follow the same standards as in other countries and that human resources trained to deal with this problem are lacking. He argued that, beyond all other actions, reducing the import of waste-generating materials is of prime importance. He concluded by stating that the mass import, consumption and disposal of waste are not sustainable in SIDS.

Tonga, Fiji and Palau were invited to share their experiences of 3R practices based on the support of J-PRISM. Palau reported on improvements achieved through initiatives, including separate collection, composting of market waste, and a “clean schools” program and other public awareness activities. He said that children represent excellent agents of change to create awareness and changing mindsets remains the ultimate challenge in advancing 3R.

PLENARY SESSION 6: REPORTING BACK FROM THE ROUNDTABLES AND THE NGO SIDE EVENT

Bounchanh Sinthavong, Vice-Minister, Ministry of Public Works and Transport, Lao PDR, chaired this session on Tuesday afternoon and invited the groups to present their main points.

REPORT BACK ON ROUNDTABLE 1 ON 3RS IN SMES AND INDUSTRIES: Roundtable Rapporteur Maryam Shater, UNIDO, recalled the main questions addressed by the group: why SMEs should adopt 3R; how to overcome challenges; and what can be done to promote improvements. Noting changing economic landscapes and an expected world population of nine billion people by 2050, Shater emphasized the need for technical assistance and financial support. She said that barriers to energy efficiency technologies remain, and that the particularities of each sector need to be taken into account, while the engagement of top managers is vital to promoting energy efficiency. She concluded that “cooperation and facilitation” are key terms in advancing 3R in this category of business.

REPORT BACK ON ROUNDTABLE 2 ON 3RS IN AGRICULTURE AND THE RURAL SECTOR: Roundtable Chair Tenzin outlined key points discussed in the group, including, *inter alia*, successful experiences with biogas, protection of water resources, relevance of education and the promotion of awareness. On challenges, he highlighted the negative impacts of the burning of rice straw on human health. He emphasized poverty alleviation as fundamental to modernizing the agriculture sector and avoiding waste production.

REPORT BACK ON ROUNDTABLE 3 ON 3RS FOR SUSTAINABLE AND RESILIENT CITIES: Roundtable Chair Hui reported back on country actions and concerns, highlighting examples, including:

- Australia’s product labeling scheme to encourage consumers to favor energy-efficient and water-saving appliances, and measures to reduce the cost of transporting recyclables to processing centers;
- India’s investment in local sewage treatment facilities, e-waste guidelines, and mixing of plastics waste with bitumen;
- Indonesia’s prioritization of good city planning and community education for behavior change, in view of the pressure on landfill sites, and concern about the practice of dumping solid waste in rivers; and



Shiro Amano, JICA, presented on the Japanese Technical Cooperation Project for Promotion of Regional Initiative on Solid Waste (J-PRISM)

- The Republic of Korea's conversion of old landfills to public parks, and pricing of garbage bags to encourage waste reduction and recycling.

He also noted general interest in the synergies between waste disposal and energy generation, mentioning further examples from Sri Lanka and Bangladesh.

REPORT BACK ON ROUNDTABLE 4 ON MULTI-STAKEHOLDER PARTNERSHIPS IN ADVANCING 3RS AND RESOURCE EFFICIENCY: Roundtable Chair Buya said the group addressed domestic and international partnerships, and that the development of a legal framework is essential, as well as government programmes to encourage appropriate consumer behavior.

Roundtable Rapporteur Sunil Herat, Griffith University, Australia, said the group had considered successful models that can be scaled up, including UN-ESCAP multi-stakeholder partnerships, and the International Partnership for Expanding Waste Management Services in Local Authorities, which is open to all stakeholders, including local and national governments and the private sector, to help overcome issues in solid waste management. He said participants had shared country examples of stakeholder partnerships, such as: Brunei's Environment Youth Envoy; the Republic of Korea's voluntary agreements to introduce fees for plastic bags and reduction of disposal cups in coffee shops; Japan's multi-stakeholder partnership to encourage polyethylene terephthalate (PET) bottle recycling, through the adoption of voluntary design guidelines; and the Asia 3R Citizen Network, comprised of 20 Japanese NGOs in partnership with local communities to reduce waste.

REPORT BACK ON ROUNDTABLE 5 ON 3RS AS THE BASIS FOR SUSTAINABLE WASTE MANAGEMENT IN SIDS: Roundtable Chair Ielemia proposed a new approach of "3R+R," or reduce, reuse, recycle and return. The group concentrated discussions on three levels. At the national level, countries shared their own experiences of introducing 3R policies, building on the cases of Tonga, Fiji and Palau. At the regional level, they agreed that the exchange of best practices is the most appropriate method to build capacity and recycling practices among SIDS, and should be encouraged. At the inter-regional level, the group recognized the importance of the Asian economy for the Pacific SIDS, and proposed to include "and the Pacific" in the official title of the Forum, so as to read "Fourth Regional 3R Forum in Asia and the Pacific." Forum participants agreed to this addition.

REPORT BACK ON THE NGO SIDE EVENT: The NGO Forum Citizens' Partnership and Cooperation toward Zero Waste Society, organized by Live and Learn Viet Nam,

and the Asia 3R Citizens' Network, Japan, took place in parallel with the Forum on Monday afternoon. Drawing more than 90 participants, the event commemorated Japan-Viet Nam Friendship Year 2013 and featured an onsite exhibition of artwork and pictures of Mount Fuji. In their report to the plenary, NGO representatives said that the group was very active and included significant input from youth representatives. They emphasized the idea that e-waste represents resources.

PLENARY SESSION 7: ADOPTION OF THE "HA NOI 3R DECLARATION – SUSTAINABLE 3R GOALS FOR ASIA FOR 2013-2023" AND CHAIR'S SUMMARY OF THE FORUM

INTRODUCTION OF THE "HA NOI 3R DECLARATION – SUSTAINABLE 3R GOALS FOR ASIA FOR 2013-2023": Choudhury Rudra Charan Mohanty, UNCRD, introduced the draft declaration at the end of the day on Monday, recalling the achievements of previous 3R forums and saying that the ultimate goal of these meetings is to establish goals and indicators with respect to new waste streams. He stated that the draft Ha Noi 3R declaration results from a process supported by countries' inputs during consultations and from a drafting team, guided by the outcome document agreed to at Rio+20. He invited participants to support the Ha Noi 3R declaration and explained that, once agreed, the declaration would request signatories to voluntarily share various initiatives, progress and actions around pre-defined 3R goals.

PLENARY DISCUSSION ON THE DECLARATION: On Wednesday morning, Nguyen Minh Quang, Minister of Natural Resources and Environment, Viet Nam, and Vice-Minister Tran Hong Ha co-chaired the session, and Mohanty, UNCRD, facilitated the discussion.

Minister Quang commended the work of participants in advancing a concrete proposal on 3R and emphasized that the Ha Noi 3R declaration is a non-legally binding document. Participants agreed to change the title of the declaration in order to incorporate the Pacific region.

China said that, in accordance with procedural rules, he would require time to consult with his government after the declaration is adopted.

Japan suggested acknowledging the role of UNEP-IETC and the related decision taken at the 25th UNEP Governing Council in 2009, which agreed to scale up activities related to waste management.



L-R: Choudhury Rudra Charan Mohanty, UNCRD; H.E. Tran Hong Ha, Vice-Minister of Natural Resources and Environment, Viet Nam; H.E. Nguyen Minh Quang, Minister of of Natural Resources and Environment, Viet Nam; Chikako Takase, Director, UNCRD



Nguyen Minh Quang, Minister of Natural Resources and Environment, Viet Nam

Bangladesh proposed to include references to triangular cooperation among developing countries and UN development systems, following the Buenos Aires Plan of Action approved by the UN General Assembly in 1978.

The Republic of Korea noted potential difficulties for developing countries in eradicating “all forms of child labor,” as suggested by the ILO, and proposed inclusion of the term “gradually,” with reference to working conditions and livelihood security. Thailand suggested moving this goal from the section on municipal solid waste to the section on cross-cutting issues.

On the inappropriate export and import of waste, China suggested adding terms referring to “illegal” and “inter-port trade.”

With respect to a separate goal on facilitating the international circulation of reusable and recyclable resources, the Republic of Korea cautioned against sending unusable waste to developing countries under the pretext of it being a resource.

The Maldives highlighted the challenges of addressing dumping of waste in oceans, which affects tourism in SIDS.

On eliminating open dumping into oceans and open burning in urban and rural areas, Malaysia preferred to “control” open burning, saying that eliminating the practice would affect agriculture where open burning is practiced. Participants debated whether “open burning” had a legitimate role, and if it could be controlled. They eventually agreed to Malaysia’s proposal. The Philippines requested an additional goal to promote the 3R concept in managing healthcare waste.

On the full-scale management of the organic component of municipal waste, India proposed specifically mentioning food waste.

Pacific Island Countries explained the use of terminology on a goal addressing promotion of the 3R+ “return” concept, saying this would apply in SIDS where recycling is difficult due to the absence of recycling industries and the limited scale of markets.

The Maldives proposed including a reference to gender dimensions, and representatives agreed to introduce an additional goal on this aspect.

Forum participants adopted the Declaration on the understanding that the Secretariat would update it with the agreed changes.

SUMMARY OF THE HA NOI 3R DECLARATION:

The Declaration presents around 30 goals applying to waste management in urban, industrial and rural areas. It also addresses new and emerging wastes and cross-cutting issues, and a set of core indicators, contained in an annex to the Declaration.

On municipal solid waste, goals include reducing the quantity of waste generated, fully utilizing organic waste and increasing the rate of recycling.

On industrial waste, the Declaration includes goals, *inter alia*, on promoting the greening of the supply chain and on industrial symbiosis, whereby waste from one industry is used as a resource in another. It also agrees to proper classification and inventory of hazardous waste, as a basis for industrial waste management.

In rural areas, the Declaration includes goals on reducing losses in the food supply chain and promoting the full-scale use of agricultural biomass and livestock waste.

On new and emerging wastes, the Declaration specifies goals to: address plastics in the marine and coastal environment; ensure environmentally-sound management



Participants reviewing the text of the “Ha Noi 3R Declaration”



Chikako Takase, Director, UN Centre for Regional Development

of e-waste; undertake enforcement regarding illegal and inappropriate export and import of waste; progressively implement EPR; and promote 3R in healthcare waste management.

The goals also address cross-cutting issues, such as: promoting green jobs; raising public awareness for behavior change; and phasing out harmful subsidies that favor unsustainable use of raw materials, water and energy. Other cross-cutting issues captured in the goals include: promotion of “3R+R,” for the “return” of waste from islands where recycling is not feasible; elimination of dumping in oceans; and elimination of illegal child labor in the informal waste sector.

CHAIR’S SUMMARY OF THE FORUM: Vice-Minister Tran Hong Ha then presented a draft of the Chair’s Summary of the Forum. Delegates approved the draft following minor edits.

The document highlights the core decisions of the Forum and provides an overview of the growing challenges related to new streams of waste, including waste electrical and electronic equipment, healthcare waste, plastics in the coastal-marine environment, construction and demolition waste, mining waste, chemical and hazardous waste, waste agriculture biomass, used tires and wastes linked to nanomaterials

The document also states that the Ha Noi 3R Declaration sets a framework for Asian and Pacific countries to voluntarily develop and implement 3R policies based on monitoring mechanisms and non-legally binding targets. In addition, it underscores that 3R is “intrinsically linked with resource efficiency in a wide range of key development sectors,” including, for example, agriculture, industry, energy and mining.

The document notes that participants endorsed the need for closer regional and international cooperation as a mean of implementing the Ha Noi 3R Declaration. It calls for the establishment of a regional information network and a set of indicators that will enable efficient policies and monitoring practices on 3R, which are fundamental to addressing “an inclusive and green economic development” in Asia and the Pacific.

CLOSING SESSION

Djoko Mursito, Ministry of Public Works’ Directorate General of Human Settlements, Indonesia, announced that the Fifth 3R Forum will be held in Indonesia next year.

Vice-Minister Yatsu, Japan, thanked Viet Nam for hosting the Forum, which he said had produced the world’s first regional response to the Rio+20 outcome, particularly in relation to sustainable consumption and production. He affirmed Japan’s commitment to regional cooperation on 3R.

Chikako Takase, Director, UNCRD, expressed appreciation to all participants, and to the national and local government representatives who had made the meeting possible.

In his closing remarks, Minister Quang welcomed the adoption of the Ha Noi 3R Declaration and the “considerable results” of the Forum, thanking the Government of Japan and UNCRD. He emphasized that the approval of the Ha Noi 3R Declaration, including specific goals up to 2023, will be the basis for countries to develop their own goals and objectives, and called for common efforts and cooperation towards a green economy in Asia. He closed the meeting at 11:55 am.

FIELD TRIP – BÁT TRÀNG CERAMIC VILLAGE, BÁT TRÀNG, GIA LÂM, HÀ NỘI

On Wednesday afternoon, Forum participants visited the Bát Tràng traditional ceramic craft village. In a presentation to the group, the Bát Tràng People’s Committee Vice-Chair and the Bát Tràng Ceramics Association Chair described pollution issues in the area, which in the past have led to a high prevalence of respiratory and vision problems due to smoke from the coal-fired kilns. They explained that gas-fueled kilns, funded by UNDP, have improved air quality.

Participants then visited the Hoang Long ceramics factory to view energy-efficient technology that has been introduced to its kiln. Representatives of the production facility explained that the kiln must be heated to 1,200 degrees Celsius in order to fire the ceramics, and the heat produced is captured and used for drying the products. Representatives of the Bát Tràng People’s Committee accompanied Forum participants on a visit to the Bát Tràng ceramics market.

UPCOMING MEETINGS

Paris Forum: UNIDO is convening a one-day forum on the theme “Towards a Sustainable Economic Paradigm - From Labour to Resource Productivity” to engage leaders and key actors in discussion of new forms of agricultural and industrial production that have a radically lower environmental footprint. The forum will address the topics of green growth; regulatory, policy and financing frameworks for a green economy; and green industry for a strengthened economy. **dates:** 4 April 2013 **location:** Paris, France **contact:** Jean-Brice Blavignac **phone:** +43 1 26026 4826 **email:** j.blavignac@unido.org **www:** <https://www.unido.org/parisforum2013.html>

Waste Management Course for Pacific Islanders: Convened by the Secretariat of the Pacific Regional Environment Programme, this course is open to participants from the Cook Islands, the Federated States of Micronesia, Fiji, Kiribati, Nauru, Niue, the Marshall Islands, Palau, Papua New Guinea, Samoa, the Solomon Islands, Tonga, Tuvalu and Vanuatu. It will focus on addressing landfill and dumpsite management, and will include topics, such as leachate treatment and management, and environmental monitoring.

dates: 15-26 April 2013 **location:** Suva, Fiji **contact:** Stanley Ebelewicz phone:+685-21929 fax:+685-20231 **e-mail:** stanleye@sprep.org **www:** <http://www.sprep.org/waste-management-pollution->

Greater Mekong Waste Management Summit 2013:

The event aims to build a platform to discuss the problems, challenges, solutions and opportunities in handling and managing all waste streams in the Greater Mekong Region, which has been suffering from challenges arising from a high population growth rate, massive migration to urban centers, rapid urbanization and industrialization, improper final disposal of solid wastes and weak enforcement of environmental protection laws. **dates:** 22-23 April 2013 **location:** Bangkok, Thailand **contact:** Magenta Global Pte Ltd **tel:** +65 6391 2533 **fax:** +65 6392 3592 **email:** enquiry@magenta-global.com.sg **www:** <http://www.magenta-global.com.sg/greatermekongwastemanagement2013/>

Ordinary and Extraordinary Meetings of the

Conferences of the Parties to the Basel, Rotterdam and

Stockholm Conventions:

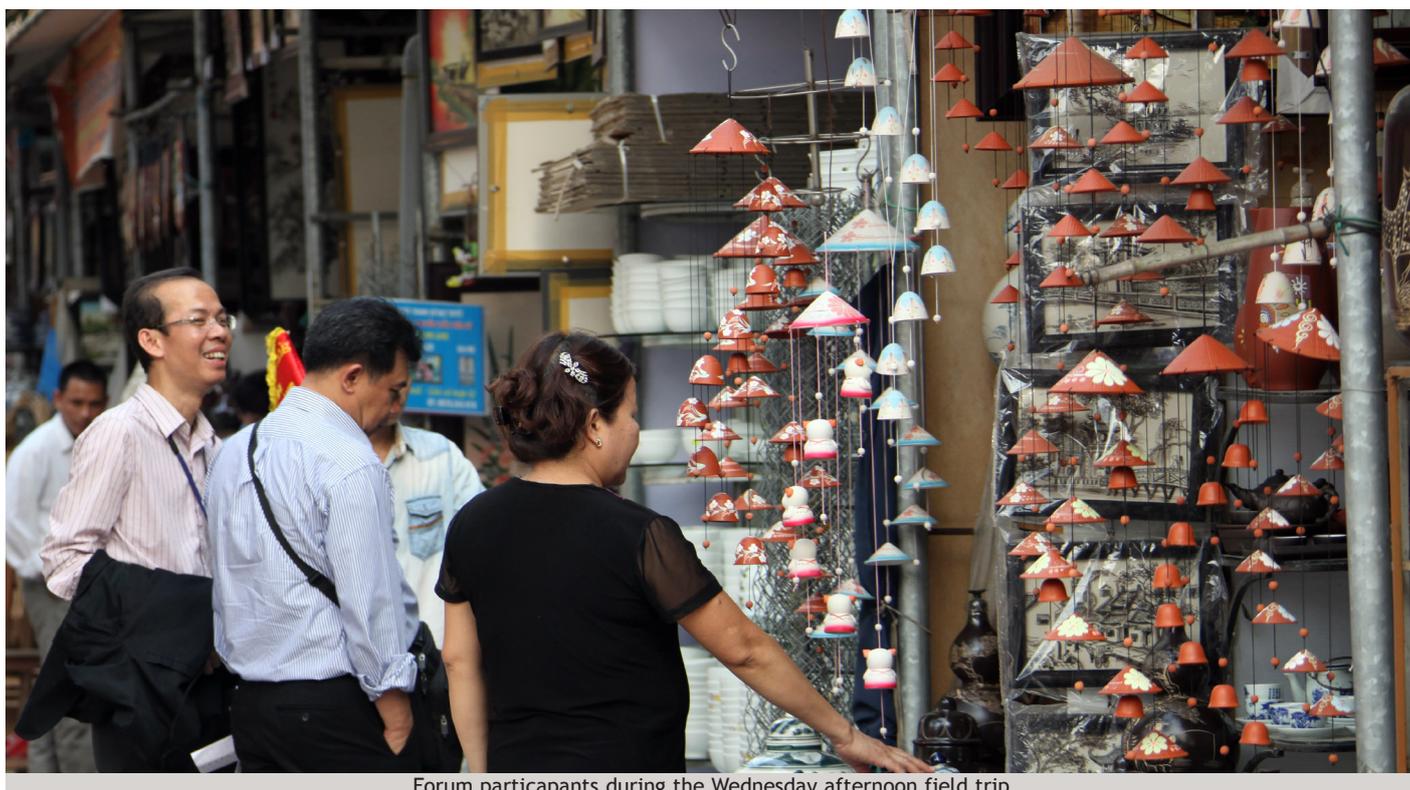
The ordinary and extraordinary meetings of the Conference of the Parties to the Basel, Rotterdam and Stockholm Conventions will convene back-to-back for the first time. A high-level segment is scheduled from 9-10 May on the theme of synergies and national implementation of the three conventions. **dates:** 28 April – 10 May 2013 **location:** Geneva, Switzerland **contact:** Secretariat phone: +41-22-917-8729 **fax:** +41-22-917-8098 **email:** synergies@unep.org **www:** <http://synergies.pops.int/>

Fifth 3R Regional Forum in Asia and the Pacific:

The Fifth Regional Forum will take place in Indonesia in 2014. **dates:** March/April 2014 [*exact dates TBC*] **location:** Indonesia **contact:** UNCRD Secretariat **phone:** +81-52-561-9377 **fax:** +81-52-561-9375 **email:** mohantyc@uncrd.or.jp **www:** <http://www.uncrd.or.jp>

GLOSSARY

CACC	Climate and Clean Air Coalition
CSIRO	Commonwealth Scientific and Industrial Research Organisation
CSR	Corporate social responsibility
EMC	Environmental Management Centre
EPR	Extended producer responsibility
ESCAP	Economic and Social Commission for Asia
IETC	International Environmental Technology Centre
IGES	Institute for Global Environmental Strategies
ILO	International Labour Organization
JICA	Japan International Cooperation Agency
J-PRISM	Japanese Technical Cooperation Project for Promotion of Regional Initiative on Solid Waste Management
MDGs	Millennium Development Goals
MONRE	Ministry of Natural Resources and Environment
NGO	Non-government organizations
NEDO	New Energy and Industrial Technology Development Organization
OECD	Organisation for Economic Development and Co-operation
PCBs	Polychlorinated biphenyls
POPs	Persistent organic pollutants
SMEs	Small and medium enterprises
SIDS	Small island development states
UNCRD	United Nations Centre for Regional Development
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNIDO	United Nations Industrial Development Organization



Forum participants during the Wednesday afternoon field trip