

(As of 15<sup>th</sup> October, 2010)

# The EcoBalance 2010 Tentative Oral Session Program

Room A : Mirai CAN Hall   Room B : Innovation Hall   Room C : Conference room 2   Room D : Conference room 1   Room E : Conference room 3   \*[- ] : Special Session

Room A					Room B					Room C					Room D				
<b>9<sup>th</sup> Nov</b>																			
18:00-20:00      Welcome Party (Room E)																			
<b>10<sup>th</sup> Nov</b>																			
<b>Opening and Plenary (Room A)</b> <b>Keynote 1 How Should We Shape Our Future? - Beyond Low-Carbon Society</b> Shinji TARUTOKO (A member of the House of Representatives) <b>Keynote 2 Chemical Risk Management Considering Greenhouse Effect</b> Junko NAKANISHI (National Institute of Advanced Industrial Science and Technology)																			
12:00-13:30      Lunch																			
*[-1]					Theory and Practice on Supply Chain Analysis					Resource and Environment in Asia (1)					*[-3]				
<b>Sustainable Management of Agricultural and Biomass Resources Using the Life Cycle Approach (1)</b>					<b>Environmental Implications of China – Australia Trade: An Assessment of Embodied GHG Emissions, Energy and Pollutants</b>					<b>Analysis of Energy Consumption Structure in Suzhou, China</b>					<b>Life-Cycle Approaches for the Water Footprint of Products: The Balancing Act Between Simple Indicators and Complex Methods</b>				
13:30-13:50 A1-1330 Invited <b>Coping with Rebound Effects of Biofuel Production in LCA</b> Roland Werner SCHOLZ (ETH Zurich)  Switzerland					B1-1330 <b>Environmental Implications of China – Australia Trade: An Assessment of Embodied GHG Emissions, Energy and Pollutants</b> Hao TAN (University of Western Sydney)  Australia					C1-1330 <b>Analysis of Energy Consumption Structure in Suzhou, China</b> Haiyan ZHANG (Osaka University)  Japan					D1-1330 Invited <b>Life-Cycle Approaches for the Water Footprint of Products: The Balancing Act Between Simple Indicators and Complex Methods</b> Annette KOEHLER (ETH Zurich)  Switzerland				
13:50-14:10 A1-1350 <b>Food, Feed, Fuel, Forest or Carbon Sink: Can LCA Provide Guidance on How to Best Use Land?</b> Miguel BRANDÃO (European Commission)  Italy					B1-1350 <b>Understanding the Drivers Behind the Changing Carbon Footprint of Services: A Global, Trade-Linked Analysis</b> Jan MINX (Technical University Berlin)  Germany					C1-1350 <b>Input-Output Analysis and CO<sub>2</sub> Emission of Construction Sector Associated with Infrastructure Development in China</b> Tao HUANG (Nagoya University)  Japan					D1-1350 <b>Input-output Model Based Analysis of Water Consumption and Water Footprint of China 2005</b> Jing LIU (Waseda University)  Japan				
14:10-14:30 A1-1410 Invited <b>Land Use Assessment of Biofuel Feedstock Cultivation in Japan</b> Tabea BECK (University of Stuttgart)  Germany					B1-1410 <b>Modeling of an Environmental and Economic Sustainable Business Concept</b> Markus MAU (Alanus University / German Standardization Organization (DIN))  Germany					C1-1410 <b>Analysis of Energy Productivity in China</b> Michinori UWASU (Osaka University)  Japan					D1-1410 <b>Damage Assessment of Water Scarcity for Agricultural Use</b> Masaharu MOTOSHITA (National Institute of Advanced Industrial Science and Technology)  Japan				
14:30-14:50 A1-1430 <b>A Scenario-Based Assessment of Regional Biomass Utilization Using the Life Cycle Approach: A Case Study on Biorefinery Systems Founded on Sweet Potatoes in Southern Kyushu</b> Susumu UCHIDA (National Agriculture and Food Research Organization Japan)  Japan					B1-1430 <b>Structural Path Analysis and Triangularization of Input-Output Table for Understanding Carbon Footprint</b> Yasushi KONDO (Waseda University / Norwegian University of Science and Technology)  Norway					C1-1430 <b>Global and Asian Material Flow and Economic Growth</b> Shinichiro FUJIMORI (National Institute for Environmental Studies)  Japan					<b>Poster Spotlight</b> Ramon FARRENY (Sostenipra (Icta-Irta-Inèdit)) Young Deuk KIM (Rural Research Institute of KRC) Yuya ONO (Tokyo City University) Francesca VERONES (Eth Zurich)				
14:50-15:10      Break																			
*[-1]					Design for Sustainable Transport					*[-4]					Lifestyle and Consumption				
<b>Sustainable Management of Agricultural and Biomass Resources Using the Life Cycle Approach (2)</b>					<b>Sustainable Transport in Supply Chain Management</b>					<b>Greenhouse Gas (GHG) Emissions and Their Characteristics in Asia Based on National GHG Inventories</b>					<b>Lifestyle and Household Consumption in Nagoya – Toward a Low Carbon Future –</b>				
15:10-15:30 A1-1510 Invited <b>The Environmental and Social Impacts of Biofuels Production: Total Cost Assessment of Biomass Utilization Trials in Japan</b> Lise LAURIN (EarthShift, LLC)  United States					B1-1510 <b>Sustainable Transport in Supply Chain Management</b> Raul CARLSON (Viktoria Institute)  Sweden					C1-1510 <b>Greenhouse Gas (GHG) Emissions and Their Characteristics in Asia Based on National GHG Inventories</b> Junko AKAGI (National Institute for Environmental Studies)  Japan					D1-1510 <b>Lifestyle and Household Consumption in Nagoya – Toward a Low Carbon Future –</b> Dami MOON (Nagoya University)  Japan				
15:30-15:50 A1-1530 <b>Life Cycle Assessment of an Aged Red Wine from a Familiar Cellar in Catalonia, Spain</b> Niklas VON DER ASSEN (Universitat Rovira i Virgili)  Spain					B1-1530 <b>Transformational Trucking: Double Efficiency and Sustainable Transport</b> Hiroko KAWAI (Rocky Mountain Institute)  United States					C1-1530 Invited <b>Integrated Pathway for Low Carbon and Low Local Air Pollution</b> Kejun JIANG (Energy Research Institute)  China					D1-1530 <b>CO<sub>2</sub> Emissions from Consumers' Daily Lives from the Viewpoint of Time Use</b> Tomohiko IHARA (National Institute of Advanced Industrial Science and Technology)  Japan				
15:50-16:10 A1-1550 <b>Environmental Evaluation by Means of LCA of a Renewable Material Product: The Natural Cork Stopper</b> Jesus RIVES (SosteniPra: UAB-II-IRTA)  Spain					B1-1550 <b>The Role of Motor Vehicle Lifetime Extension in Climate Change Policy</b> Shigemi KAGAWA (Kyushu University)  Japan					C1-1550 <b>The Green Economy Mirage ? – Assessing the Potential Environmental Impact of Low-Carbon Growth Strategies in Taiwan</b> Chia-Wei CHAO (National Taiwan University)  Taiwan, R.O.C.					D1-1550 <b>Scenario Analysis about LC-GHG Emission of Household Food Consumption Considering Household Characteristics</b> Naoki YOSHIKAWA (Ritsumeikan University)  Japan				
16:10-16:30 A1-1610 Invited <b>Development of Ecological Scarcity Japan</b> Rolf FRISCHKNECHT (ESU-services Ltd.)  Switzerland					B1-1610 <b>Reduction of CO<sub>2</sub> and Cost-Effectiveness Analysis by Future Technology of Automobile</b> Shuichi KANARI (Japan Automobile Research Institute)  Japan					C1-1610 <b>Another Role for Renewables: Decoupling Regional Development and Environmental Degradation through Renewable Energy Mobilization</b> William II Young BYUN (Asia Renewables)  Singapore					D1-1610 <b>Life Cycle Inventory Analysis about Biogasification of Household Food and Paper Waste</b> Takeshi MATSUDA (Kyoto University)  Japan				
16:30-16:50      Break																			



	Room A	Room B	Room C	Room D
Session	*[S-1] Sustainable Management of Agricultural and Biomass Resources Using the Life Cycle Approach (3)	Life Cycle Thinking on Building	*[S-4] Decoupling Environmental Impact and Resource Use from Economic Growth in Asia	International Trade and Waste Management Issue
16:50-17:10	A1-1650 <b>Non-CO<sub>2</sub> GHG Emission from Natural Processes in Carbon Footprint of Foods</b> Masanori SAITO (Tohoku University) Japan	B1-1650 <b>Case Studies in Lifecycle Building Design</b> Erin E. MOORE (University of Oregon) United States	C1-1650 <b>Resource Efficiency: Economics and Outlook for the Asia-Pacific Region</b> Heinz SCHANDL (CSIRO Sustainable Ecosystems) Australia	D1-1650 <b>Exploring Lead Life Cycle from Inter-Country Trade</b> Masaaki FUSE (National Institute of Advanced Industrial Science and Technology) Japan
17:10-17:30	A1-1710 <b>Sustainable Food Production</b> Johanna TELIEPS (Alanus University) Germany	B1-1710 <b>The Role of LCA in the German Sustainable Building Certification</b> Bastian WITTSTOCK (University of Stuttgart) Germany	C1-1710 <b>Evaluating Industrial Energy Efficiency and Resource Productivity on the Basis of Taiwan Economy-Wide Material Flow Inventory</b> Guan-Lin LU (National Taipei University) Taiwan, R.O.C.	D1-1710 <b>Substance Flow Analysis on the Alloying Elements Associated with Steel Materials Based on WIO MFA Model</b> Hajime OHNO (Tohoku University) Japan
17:30-17:50	A1-1730 <b>Greenhouse Gas Emissions for Calculating Carbon Footprint of Sugar Production: A Case Study in Eastern Thailand</b> Monthira YUTTITHAM (The Joint Graduate School of Energy and Environment) Thailand	B1-1730 <b>Relationship between Urban Infrastructure and Compactness for Chinese Cities</b> Jinling FEI (Nagoya University) Japan	C1-1730 <b>Municipal Waste Banking System in Thailand: Lesson Learned from Sakonnakorn Province</b> Chanathip PHARINO (Chulalongkorn University) Thailand	D1-1730 <b>Exploring the Benefits of Environmental Policy on Innovation and Market Behavior: The Japanese Experience in Dealing with Waste Management</b> Helmut YABAR (University of Tsukuba) Japan
17:50-18:10	A1-1750 <b>Carbon Footprinting of Thai Rice Products: Practical Issues for Harmonised Methodology</b> Rattawan MUNGKUNG (Kasetsart University) Thailand	B1-1750 <b>Ecological Design of Green Roofs for Sustainable Cities</b> C.Y. JIM (The University of Hong Kong) Hong Kong	C1-1750 <b>Structural Properties of Global GHG Emissions and Resource Networks Embedded in Product Supply Chain</b> Keisuke NANSAI (National Institute for Environmental Studies) Japan	D1-1750 <b>Mixed Metal Scrap in Japan and Its Export Control</b> Atsushi TERAZONO (National Institute for Environmental Studies) Japan

11 <sup>th</sup> Nov.				
Session	*[S-1] Sustainable Management of Agricultural and Biomass Resources Using the Life Cycle Approach (4)	*[S-7] Applications of LCA to New-technology Innovation (1)	*[S-2] Sustainable Mining from Natural and Urban Reserves (1)	Resource and Environment in Asia (2)
9:00-9:20	A2-0900 <b>Nutrient Recovery of the Effluent of Anaerobic Wastewater Treatment from Swine Farm by Magnesium Ammonium Phosphate Precipitation</b> Sutha KHAODHIAR (Chulalongkorn University) Thailand	B2-0900 <b>Trend Analysis of Factors to Build Material Cycle in Biomass Town Concepts</b> Rokuta INABA (National Institute for Environmental Studies) Japan	C2-0900 <b>Substance Flow Analysis of Zinc Correlated with South Korean Steel Industry</b> Yong Soo JEONG (Tohoku University) Japan	D2-0900 <b>Scenario Analysis on Zinc Recovery from Steel Making Dust in Thailand</b> Romchat CHAIRAKSA (Tohoku University) Japan
9:20-9:40	A2-0920 <b>Assessment of Nitrogen and Phosphorus Distribution from Pig Farming to Bang Pakong Basin, Thailand</b> Wallapa KUPKANCHANAKUL (Mahidol University) Thailand	B2-0920 <b>Klimatre: Wood for a Better Climate and Higher Value Added Products</b> Marco IOTTI (PFI AS) Norway	C2-0920 <b>Substance Flow Analysis of Cadmium in Korea</b> Minjung SON (Konkuk University) Republic of Korea	D2-0920 <b>Survey of Household Waste Generation and Willingness to Separate Waste Collection in Sri Lanka</b> Weranga Madhushan KAHAWE GURUGE (Okayama University) Japan
9:40-10:00	A2-0940 <b>Design-Based Calculation of Life Cycle Inventory (LCI) Data for Fertilizer Production and Comparison of Results to Other LCI</b> Evan M. GRIFFING (Environmental Clarity LLC) United States	B2-0940 <b>Assessing Resource Saving Innovations in the Forest-Based Sector Industries</b> Silke FEIFEL (Karlsruhe Institute of Technology) Germany	C2-0940 <b>Dynamic Modeling of Cadmium Substance Flow with Zinc and Steel in Japan</b> Yasunari MATSUNO (The University of Tokyo) Japan	D2-0940 <b>A Brief Observation on Implementation of Taiwan Corporate Social Responsibility</b> Wang Kun CHEN (Jin-wen University of Science and Technology) Taiwan, R.O.C.
10:00-10:20	A2-1000 <b>Extrapolation of Potential Phosphorus Production into the Future</b> David A. VACCARI (Stevens Institute of Technology) United States	B2-1000 <b>Environmental Impact Assessment in Consideration of Utilization form of Products: An Example of a Paperless Meeting</b> Takafumi NAKAJIMA (Waseda University) Japan	C2-1000 <b>Domestic Material Flow of Zinc and Present Status of EAF Dust Management for Zinc Recovery in Taiwan</b> Hwong-wen MA (National Taiwan University) Taiwan, R.O.C.	D2-1000 <b>Assessment of Potentiality and Social Acceptance of PSF and RWHS in South-West Coastal Region of Bangladesh</b> Sayed Mohammad NAZIM UDDIN (Nagoya University) Japan
10:20-10:40	Break			



	Room A	Room B	Room C	Room D
Session	*[S-1] <b>Sustainable Management of Agricultural and Biomass Resources Using the Life Cycle Approach (5)</b>	*[S-7] <b>Applications of LCA to New-technology Innovation (2)</b>	*[S-2] <b>Sustainable Mining from Natural and Urban Reserves (2)</b>	<b>New Topics in LCA Database (1)</b>
10:40-11:00	A2-1040 Invited <b>Phosphorus Recycling for Sustainable Agriculture and Industry</b> Hisao OHTAKE (Osaka University) Japan	B2-1040 <b>Life Cycle Assessment of Virtual Meeting Solutions</b> Fredrik GULDBRANDSSON (Ericsson Research) Sweden	10:40-10:50 <b>Sustainable mining from Natural and Urban Reserves</b> Shinsuke MURAKAMI (University of Tokyo) Kenichi NAKAJIMA (National Institute for Environmental Studies) Japan	D2-1040 <b>Lessons from Working in UNEP's Resource Panel Secretariat for Strengthening Resource Efficiency Indicators in LCA</b> Guido SONNEMANN (United Nations Environment Programme) France
11:00-11:20	A2-1100 <b>WIO-MFA on Phosphorus Recovery from the Waste Materials</b> Kazuyo MATSUBAE (Tohoku University) Japan	B2-1100 <b>Environmental Relief Effects of Nanotechnologies by the Example of CNT Composite Materials and Films</b> Arnim Von GLEICH (University of Bremen) Germany	C2-1050 10:50-11:15 <b>Metal Mining: Its Impact to Environment and Approaches to Mitigate</b> Hiroshi SHIMOTORI (Japan Oil, Gas and Metals National Corporation) Japan	D2-1100 Invited <b>e-DEA as a Practical Design for Environment Tool</b> Andreas CROTH (GreenDeltaC) Germany
11:20-11:40	A2-1120 <b>A Critical Review of Advanced Biofuels Life Cycle Analyses</b> Fabio Machado MENTEN (IFP Energies nouvelles) France	B2-1120 <b>Eco-Balance of the Production Phases of Post Combustion CO<sub>2</sub>-Capture Technologies – A Comparison</b> Stefanie TROY (Ruhr-University Bochum) Germany	C2-1115 11:15-11:35 <b>A Practical and Rigorous Methodology for Integrating Sustainable Development Principles into Decision-making Processes at Minerals Processing Operations</b> Daniel TUAZON (Sustainable Minerals Institute) Australia	D2-1120 <b>Facilitating a Harmonisation Process Across Product Carbon Footprint Standards and PCR's</b> Mark GOEDKOOOP (PRé Consultants) Netherlands
11:40-12:00	A2-1140 <b>A Well-to-wheel Greenhouse Gases Analysis of Cassava-based Ethanol Fuels in Thailand</b> Seksan PAPONG (National Metal and Materials Technology Center) Thailand	B2-1140 <b>Value Chain Approach to WEEE Management</b> Maria Helena TÖRN (Aalto University) Finland	C2-1135 Invited 11:35-12:00 <b>A Possibility of CRT Recycling in a Lead Smelter from an Environmental Point of View</b> Takashi NAKAMURA (Tohoku University) Japan	D2-1140 <b>Data Network of the International Reference Life Cycle Data System (ILCD)</b> Kirana CHOMKHAMSRU (European Commission, Joint Research Centre) Italy
12:00-13:30	Lunch			
13:30-14:30	Poster Session A			
14:30-14:50	Break			
Session	*[S-1] <b>Sustainable Management of Agricultural and Biomass Resources Using the Life Cycle Approach (6)</b>	<b>Carbon Resource Management in Energy System</b>	*[S-2] <b>Sustainable Mining from Natural and Urban Reserves (3)</b>	<b>New Topics in LCA Database (2)</b>
14:50-15:10	A2-1450 Invited <b>Sustainable Utilisation of Biomass Resources Using an Integrated Approach</b> Shabbir H. GHEEWALA (Joint Graduate School of Energy and Environment) Thailand	B2-1450 <b>Applicability of Co-Evolutionary Cross-Linkages in Terms of a) Environment-Related Technological Innovations and b) Technology-Related Built-Environmental Re-Designs to LCA Framework</b> Joy SEN (IIT Kharagpur) India	C2-1450 Invited <b>Hybrid Ghoshian Framework for Mapping Industrial Metal Flow Networks: With a Case Study of South Korea</b> Sangwon SUH (University of California in Santa Barbara) United States	D2-1450 <b>The Ecoinvent Database – Linking to the Global Market</b> Bo P. WEIDEMA (ecoinvent) Switzerland
15:10-15:30	A2-1510 <b>An Indication of a Carbon-Footprint of Paprika Due to the Greenhouse Facilities with an Installation of Biomass Energy System</b> Kiyoshi DOWAKI (Tokyo University of Science) Japan	B2-1510 <b>Research on Supply Chain Management of Photovoltaic Industry to Reduce CO<sub>2</sub> Emission in Global Perspective</b> Kotaro KAWAJIRI (National Institute of Advanced Industrial Science and Technology) Japan	C2-1510 <b>The Grade of Materials in Urban Mine in Terms of Total Materials Requirement ~ A Comparison among Electronics, Urban Buildings and Vehicle ~</b> Eiji YAMASUE (Kyoto University) Japan	D2-1510 <b>Development of Chinese Reference Life Cycle Database (CLCD)</b> Hongtao WANG (Sichuan University) China
15:30-15:50	A2-1530 <b>Environmental Challenges When Developing Renewable Materials to Replace Non-Renewable Materials – Receiving Guidance from LCA Studies</b> Gunilla CLANCY (Chalmers University of Technology) Sweden	B2-1530 <b>A Life Cycle Perspective on Geothermal Heat Pump Systems in Europe</b> Dominik SANER (ETH Zurich) Switzerland	C2-1530 <b>Consequential MFA – A New Approach to Integrate MFA and LCA</b> Laura SCHNEIDER (Technische Universität Berlin) Germany	D2-1530 <b>Life Cycle Inventories for Bioenergy: A German Database for Policy Support</b> Liselotte SCHEBEK (Karlsruher Institut für Technologie, ITAS-ZTS) Germany
15:50-16:10	A2-1550 <b>Life Cycle Assessment of Novel Chemical Production: A Case Study of Biomass-Derived Resin</b> Yasunori KIKUCHI (The University of Tokyo) Japan	B2-1550 <b>Correlation Analysis on CO<sub>2</sub> Emission and Cost of Energy Resources and Life Cycle Assessment</b> Heetae KIM (Sungkyunkwan University) Republic of Korea	C2-1550 <b>Thermodynamic Evaluation for the Controllability on Recovery/Removal of Elements in Some Metallurgical Processes</b> Osamu TAKEDA (Tohoku University) Japan	D2-1550 <b>Method Developed for Simplified Inventory –Data Estimation of Foreign-Made Products</b> Kensuke KOBAYASHI (Tokyo University of Science) Japan
16:10-16:30	<b>Discussion</b>	B2-1610 <b>An Application of LCA to Clarification of CO<sub>2</sub> EOR as a Storage Option for CCS</b> Jitsopa SUEBSIRI (IPAC-CO <sub>2</sub> ) Canada	C2-1610 <b>Sustainability Index of Metals</b> Kohmei HALADA (National Institute for Materials Science) Japan	D2-1610 <b>The Quebec National LCI Database Initiative: Database Development without Reinventing the Wheel</b> Pascal LESAGE (CIRAIG) Canada
16:30-16:50	Break			
16:50-17:50	Poster Session B			
18:30-20:30	Banquet at 'GRAND PACIFIC LE DAIBA'			



Room A					Room B					Room C					Room D				
12 <sup>th</sup> Nov.																			
*[S-5] Index and Methods to Assess Socio-economic Impacts and Sustainability					New Topics in LCA Database (3)					*[S-8] Materials for Raising Environmental Consciousness of Consumers and Promoting Environmental Practices of Consumers					*[S-6] International Standardization of Environmental Management Accounting				
10:00-10:20	A3-1000 Invited	<b>Towards Life Cycle Sustainability Assessment – Integrating Social and Economic Aspects into Life Cycle Assessment</b> Matthias FINKBEINER (Technische Universite Berlin) Germany	B3-1000	<b>LCA Databases 2010 and Beyond – Basis to Improve Products and Services –</b> Martin BAITZ (PE International GmbH) Germany	C3-1000	<b>New Aspects of Ecomaterials</b> Yoshikazu SHINOHARA (National Institute for Materials Science) Japan	D3-1000 Invited	<b>The Role of MFCA in Coping with the Challenges of 2020</b> Bernd WAGNER (University of Augsburg) Germany											
10:20-10:40	A3-1020	<b>A UNEP/SETAC Tool Box for LC Sustainability Assessment of Products</b> Sonia VALDIVIA (United Nations Environment Programme DTIE) France	B3-1020	<b>US Activities in Making Life Cycle Inventory Data More Available to Users</b> Mary Ann CURRAN (US Environmental Protection Agency) United States	C3-1020 Invited	<b>Eco-Materials Covered from Natural Materials</b> Di ZHANG (Shanghai Jiaotong university) China	D3-1020	<b>The Impacts of MFCA Management to Corporate Financial Performances</b> Michiyasu NAKAJIMA (Kansai University) Japan											
10:40-11:00	A3-1040	<b>Social Life Cycle Assessment of Biodiesel in South Africa: an Initial Assessment</b> Charles MBOHWA (University of Johannesburg) South Africa	B3-1040	<b>European Reference Life Cycle Database (ELCD)</b> Marc-Andree WOLF (Joint Research Centre) Italy	C3-1040 Invited	<b>Subjects on Fatigue Crack Generation in High Strength Alloys for Long-Life Design</b> Osamu UMEZAWA (Yokohama National University) Japan	D3-1040	<b>MFCA Management in OMRON</b> Toshiaki HARADA (OMRON Co.) Japan											
11:00-11:20	A3-1100	<b>Social Impact Index of ICT Services – Case Study of Videoconferences in Japan And France –</b> Kazue Ichino TAKAHASHI (Nippon Telegraph and Telephone Corporation) Japan	B3-1100	<b>Modeling Life Cycle Inventories for Agricultural Production and Biomass Utilization: Development of The NARO LCI Database</b> Kiyotada HAYASHI (National Agriculture and Food Research Organization) Japan	C3-1100	<b>Precise Syntheses and Properties of New Bio-Based Polymers</b> Hideki ABE (RIKEN Biomass Engineering Program) Japan	D3-1100	<b>MFCA Management in Sekisui Chemical</b> Masashi NUMATA (Sekisui Chemical Co., Ltd.) Japan											
11:20-11:40	A3-1120	<b>Value Chain Approach to Management of Commercial and Industrial Waste</b> Johanna Elisa LAAKSONEN (Aalto University) Finland	B3-1120	<b>A Real-Field LCA Method Using Ubiquitous Information Engineering</b> Jae-Min CHA (POSTECH) Republic of Korea	C3-1120	<b>Future Use of Wastes and Byproducts in the Cement Industry</b> Seiji HASHIMOTO (National Institute for Environmental Studies) Japan	D3-1120	<b>Design of Experiments to Evaluate the Impact of Sensor Embedded Products on EOL Processing</b> Mehmet Ali ILGIN (Dokuz Eylul University) Turkey											
11:40-12:00	A3-1140	<b>Evaluating Return on Investment in Thermal Insulation for Houses Considering Non-Energy Benefits of Health and Well-Being</b> Rika EGUCHI (Keio University) Japan	B3-1140	<b>Development of LCA database based on Japanese Input-Output tables and Its Application to Environmental Management</b> Yoshinori KOBAYASHI (Toshiba Corporation) Japan	C3-1140	<b>Creating a New Industry Network Based on Gassification of Aquaculture Waste: Case Study for a Fishery Town in Hakodate</b> Atsumi FURUYA (Hokkaido University) Japan	D3-1140	<b>International Standardization of MFCA (ISO 14051)</b> Yoshikuni FURUKAWA (Nitto Denko Corporation) Japan											
12:00-13:30 Lunch																			
*[S-7] Applications of LCA to New-technology Innovation (3)					Environmental Education for Life Cycle Thinking					*[S-8] Materials for Raising Environmental Consciousness of Consumers and Promoting Environmental Practices of Consumers					Risk Assessment and Management				
13:30-13:50	A3-1330	<b>Contribution of a Technology Improvement in Greenhouse Gas Emission Reduction Considering Interactions among Corresponding Technologies under Future Circumstances</b> I-Ching CHEN (National Cheng Kung University / The University of Tokyo) Japan	B3-1330	<b>Citizen's Consciousness, Perceived Effectiveness and Practice of Environmental Behavior</b> Eri AOKI (The University of Tokyo) Japan	C3-1330 Invited	<b>Environmental Impact when Biofuels are Used for Materials Road Transport: A Carbon Footprint Approach</b> Bruno DE BENEDETTI (Politecnico di Torino) Italy	D3-1330	<b>Sustainable Use of Contaminated Land in Taiwan-building a Risk Assessment Foundation and Lesson Learned</b> Hung-The TSAI (Environmental Protection Administrative) Taiwan, R.O.C.											
13:50-14:10	A3-1350	<b>Transition of the Global Material Cycle Induced by the Introduction of Next-Generation Vehicles</b> Hiroki HATAYAMA (The University of Tokyo) Japan	B3-1350	<b>Motivation of Japanese Citizens to Utilize International Carbon Crediting and Individual Offsetting: An Experimental Survey Offering an Actual Offsetting Opportunity</b> Hidenori NAKAMURA (Institute for Global Environmental Strategies) Japan	C3-1350	<b>Evaluation of the Global Warming Impact and Water Consumption of Shopping Bags (Plastic, Paper, Cotton): Case Study in Thailand</b> Jitti MUNGKALASIRI (National Metal and Materials Technology Center) Thailand	D3-1350	<b>Decision Support Tool in Design of Metal Cleaning Process Based on Life Cycle and Risk Assessments</b> Hiroki MATOBA (The University of Tokyo) Japan											
14:10-14:30	A3-1410	<b>Batteries Management for Minimization of Electric Vehicles' Environmental Impacts in a Life Cycle Assessment Framework</b> Van Thanh Thuy DANG (Renault) France	B3-1410	<b>Biodiesel Production as a Framework for Sustainability and Life Cycle Thinking in an Introductory Engineering Course</b> Johannes STROBEL (Rowan University) United States	C3-1410	<b>Criteria on Metals for Sustainable Materials Management in Type I Eco- Labelling System</b> Ichiro DAIGO (The University of Tokyo) Japan	D3-1410	<b>Risk Trade-Offs between Brominated Flame Retardants and GHG Emissions from Life Cycle Perspective; Toward Sustainable Chemicals Assessment</b> Satoshi MANAGAKI (Yokohama National University) Japan											



	Room A	Room B	Room C	Room D
14:30-14:50	<b>A3-1430 Required Specifications of Plug-in Electric Vehicles for CO<sub>2</sub> Mitigation in Life Cycle Perspective</b> Yuki KUDOH (National Institute of Advanced Industrial Science and Technology) Japan	<b>B3-1430 Socio-Psychological Impacts of the Introduction of PV Systems</b> Hajime NODA (Yokohama National University) Japan	<b>C3-1430 In What Extent Existing Assessment Methods and Eco-Certification of Architectural Materials Can Turn the Construction Industry Green</b> Eirini Renata DIMITROKALI (University of Central Lancashire) United Kingdom	<b>D3-1430 Human Exposure Assessment to Pesticides in Developing Countries: Pesticide Flow Analysis during Handed- And Motor-Pressurized Application</b> Camilo LESMES FABIÁN (University of Graz) Austria
14:50-15:10	<b>A3-1450 Inventory Analysis of CO<sub>2</sub> Emission over the Electric Vehicle</b> Mayumi ISOBE (Nissan Motor Co., LTD.) Japan	<b>B3-1450 Life-Cycle Assessment of Material Recycling Based on Market Substitutability – A Case Study of Pet Bottle Recycling –</b> Jun NAKATANI (The University of Tokyo) Japan	<b>C3-1450 Agricultural Tourism for Eco Balance</b> Pardip Singh SHEHRAWAT (CCS Haryana Agricultural University) India	<b>D3-1450 PAHs Accumulation in the Life Cycle of Corn</b> Shiyong DU (Jinan Environmental Protection Research Institute) China
15:10-16:10	<b>Closing</b>			
16:10-16:50	<b>Farewell Party (Room E)</b>			



(As of 15<sup>th</sup> October, 2010)

## Oral Session

### ► November 10, 2010

Special Session 1 (Room A) November 10, 2010 13:30-14:50

#### Sustainable Management of Agricultural and Biomass Resources Using the Life Cycle Approach (1)

**A1-1330 (Invited)** 13:30-13:50  
**Coping with Rebound Effects of Biofuel Production in LCA**  
Roland Werner SCHOLZ, Bastien GIROD

**A1-1350** 13:50-14:10  
**Food, Feed, Fuel, Forest or Carbon Sink: Can LCA Provide Guidance on How to Best Use Land?**  
Miguel BRANDÃO

**A1-1410 (Invited)** 14:10-14:30  
**Land Use Assessment of Biofuel Feedstock Cultivation in Japan**  
Tabea BECK, Bastian WITTSTOCK,  
Kiyotada HAYASHI, Ulrike BOS, Takeshi OTA,  
Susumu UCHIDA

**A1-1430** 14:30-14:50  
**A Scenario-based Assessment of Regional Biomass Utilization Using the Life Cycle Approach: A Case Study on Biorefinery Systems Founded on Sweet Potatoes in Southern Kyushu**  
Susumu UCHIDA, Kiyotada HAYASHI,  
Teruo WATANABE, Ryo SUGIURA

Break (20 min.)

Special Session 1 (Room A) November 10, 2010 15:10-16:30

#### Sustainable Management of Agricultural and Biomass Resources Using the Life Cycle Approach (2)

**A1-1510 (Invited)** 15:10-15:30  
**The Environmental and Social Impacts of Biofuels Production: Total Cost Assessment of Biomass Utilization Trials in Japan**  
Lise LAURIN, Kiyotada HAYASHI, Susumu UCHIDA

**A1-1530** 15:30-15:50  
**Life Cycle Assessment of an Aged Red Wine from a Familiar Cellar in Catalonia, Spain**  
Niklas VON DER ASSEN, Montse MENESES

**A1-1550** 15:50-16:10  
**Environmental Evaluation by Means of LCA of a Renewable Material Product: The Natural Cork Stopper**  
Jesus RIVES, Joan RIERADEVALL,  
Xavier GABARRELL

**A1-1610 (Invited)** 16:10-16:30  
**Development of Ecological Scarcity Japan**  
Rolf FRISCHKNECHT, Sybille BUESSER,  
Kiyotada HAYASHI, Susumu UCHIDA

Break (20 min.)

Special Session 1 (Room A) November 10, 2010 16:50-18:10

#### Sustainable Management of Agricultural and Biomass Resources Using the Life Cycle Approach (3)

**A1-1650** 16:50-17:10  
**Non-CO<sub>2</sub> GHG Emission from Natural Processes in Carbon Footprint of Foods**  
Masanori SAITO

**A1-1710** 17:10-17:30  
**Sustainable Food Production**  
Johanna TELIEPS

**A1-1730** 17:30-17:50  
**Greenhouse Gas Emissions for Calculating Carbon Footprint of Sugar Production: A Case Study in Eastern Thailand**  
Monthira YUTTITHAM

**A1-1750** 17:50-18:10  
**Carbon Footprinting of Thai Rice Products: Practical Issues for Harmonised Methodology**  
Rattanawan MUNGKUNG, Ngamtip POOVARODOM,  
Phakaporn TANAPARISUTTI,  
Thitikorn CHUPAIROTE

Break (20 min.)

General Session (Room B) November 10, 2010 13:30-14:50

#### Theory and Practice on Supply Chain Analysis

**B1-1330** 13:30-13:50  
**Environmental Implications of China-Australia Trade: An Assessment of Embodied GHG Emissions, Energy and Pollutants**  
Hao TAN

**B1-1350** 13:50-14:10  
**Understanding the Drivers behind the Changing Carbon Footprint of Services: A Global, Trade-linked Analysis**  
Jan MINX, Baiocchi GIOVANNI, Peters GLEN,  
Keisuke NANSAI, Shigemi KAGAWA

**B1-1410** 14:10-14:30  
**Modeling of an Environmental and Economic Sustainable Business Concept**  
Markus MAU, Nicole MAU

**B1-1430** 14:30-14:50  
**Structural Path Analysis and Triangularization of Input-output Table for Understanding Carbon Footprint**  
Yasushi KONDO, Anders Hammer STRØMMAN,  
Shigemi KAGAWA

Break (20 min.)



## Oral Session

### General Session (Room B) November 10, 2010 15:10-16:30

#### Design for Sustainable Transport

- B1-1510** 15:10-15:30  
**Sustainable Transport in Supply Chain Management**  
 Raul CARLSON
- B1-1530** 15:30-15:50  
**Transformational Trucking: Double Efficiency and Sustainable Transport**  
 Hiroko KAWAI, Amanda SAHL, Mike SIMPSON
- B1-1550** 15:50-16:10  
**The Role of Motor Vehicle Lifetime Extension in Climate Change Policy**  
 Shigemi KAGAWA, Keisuke NANSAI,  
 Klaus HUBACEK, Sangwon SUH, Jan MINX,  
 Yuki KUDOH, Yasushi KONDO, Tomohiro TASAKI,  
 Shinichiro NAKAMURA
- B1-1610** 16:10-16:30  
**Reduction of CO<sub>2</sub> and Cost-effectiveness Analysis by Future Technology of Automobile**  
 Shuichi KANARI, Masanobu KII, Shigeru SUEHIRO

Break (20 min.)

### General Session (Room B) November 10, 2010 16:50-18:10

#### Life Cycle Thinking on Building

- B1-1650** 16:50-17:10  
**Case Studies in Lifecycle Building Design**  
 Erin E. MOORE
- B1-1710** 17:10-17:30  
**The Role of LCA in the German Sustainable Building Certification**  
 Bastian WITTSTOCK, Matthias FISCHER,  
 Johannes KREISSIG, Anna BRAUNE, Katrin LOEWE
- B1-1730** 17:30-17:50  
**Relationship between Urban Infrastructure and Compactness for Chinese Cities**  
 Jinling FEI, Hiroki TANIKAWA, Tao HUANG,  
 Sradhanjali MOHANTY, Hidefumi IMURA
- B1-1750** 17:50-18:10  
**Ecological Design of Green Roofs for Sustainable Cities**  
 C. Y. JIM

Break (20 min.)

### General Session (Room C) November 10, 2010 13:30-14:50

#### Resource and Environment in Asia (1)

- C1-1330** 13:30-13:50  
**Analysis of Energy Consumption Structure in Suzhou, China**  
 Haiyan ZHANG, Michinori UWASU, Keishiro HARA
- C1-1350** 13:50-14:10  
**Input-out Analysis and CO<sub>2</sub> Emission of Construction Sector Associated with Infrastructure Development in China**  
 Tao HUANG, Feng SHI, Hiroki TANIKAWA,  
 Jinling FEI, Xin TIAN, Hidefumi IMURA
- C1-1410** 14:10-14:30  
**Analysis of Energy Productivity in China**  
 Michinori UWASU, Keishiro HARA, Haiyan ZHANG,  
 Helmut YABAR
- C1-1430** 14:30-14:50  
**Global and Asian Material Flow and Economic Growth**  
 Shinichiro FUJIMORI, Yuzuru MATSUOKA

Break (20 min.)

### Special Session 4 (Room C) November 10, 2010 15:10-16:30

#### Decoupling Environmental Impact and Resource Use from Economic Growth in Asia (1)

- C1-1510** 15:10-15:30  
**Greenhouse Gas (GHG) Emissions and Their Characteristics in Asia Based on National GHG Inventories**  
 Junko AKAGI, Yukihiro NOJIRI, Akihiro TAMAI
- C1-1530 (Invited)** 15:30-15:50  
**Integrated Pathway for Low Carbon and Low Local Air Pollution**  
 Kejun JIANG
- C1-1550** 15:50-16:10  
**The Green Economy Mirage? – Assessing the Potential Environmental Impact of Low-Carbon Growth Strategies in Taiwan**  
 Chia-Wei CHAO, Hwong-wen MA,  
 Ming-Lung HUNG
- C1-1610** 16:10-16:30  
**Another Role for Renewables: Decoupling Regional Development and Environmental Degradation through Renewable Energy Mobilization**  
 William Il Young BYUN, Charles FISCHL

Break (20 min.)

## Oral Session

Special Session 4 (Room C) November 10, 2010 16:50-18:10

### Decoupling Environmental Impact and Resource Use from Economic Growth in Asia (2)

**C1-1650** 16:50-17:10  
**Resource Efficiency: Economics and Outlook for the Asia-Pacific Region**  
Heinz SCHANDL, Graham M. TURNER, Jim WEST, Steve KEEN

**C1-1710** 17:10-17:30  
**Evaluating Industrial Energy Efficiency and Resource Productivity on the Basis of Taiwan Economy-wide Material Flow Inventory**  
Guan-Lin LU, Yuh-Ming LEE

**C1-1730** 17:30-17:50  
**Municipal Waste Banking System in Thailand: Lesson Learned from Sakonnakorn Province**  
Suthira PUANGSIRI, Chanathip PHARINO

**C1-1750** 17:50-18:10  
**Structural Properties of Global GHG Emissions and Resource Networks Embedded in Product Supply Chain**  
Keisuke NANSAI, Shigemi KAGAWA, Yasushi KONDO, Kenichi NAKAJIMA, Sangwon SUH, Rokuta INABA

Special Session 3 (Room D) November 10, 2010 13:30-14:50

### Advances of Knowledge for Assessing Water Resource Use and Consumption in LCA

**D1-1330 (Invited)** 13:30-13:50  
**Life-Cycle Approaches for the Water Footprint of Products: The Balancing Act between Simple Indicators and Complex Methods**  
Annette KOEHLER, Stephan PFLSTER

**D1-1350** 13:50-14:10  
**Input-output Model Based Analysis of Water Consumption and Water Footprint of China 2005**  
Jing LIU, Katsuya NAGATA, Hiroshi ONODA

**D1-1410** 14:10-14:30  
**Damage Assessment of Water Scarcity for Agricultural Use**  
Masaharu MOTOSHITA, Norihiro ITSUBO, Yutaka GENCHI, Atsushi INABA

**Poster Spotlight** 14:30-14:50  
Ramon FARRENY, Young Deuk KIM, Yuya ONO, Francesca VERONES

Break (20 min.)

General Session (Room D) November 10, 2010 15:10-16:30

### Lifestyle and Consumption

**D1-1510** 15:10-15:30  
**Lifestyle and Household Consumption in Nagoya – Toward a Low Carbon Future –**  
Dami MOON, Hiroki TANIKAWA, Heinz SCHANDL, Liana WILLIAMS, Sonia GRAHAM, Hitomi NAKANISHI

**D1-1530** 15:30-15:50  
**CO<sub>2</sub> Emissions from Consumers' Daily Lives from the Viewpoint of Time Use**  
Tomohiko IHARA, Ryoko MOTOSE, Yuki KUDOH

**D1-1550** 15:50-16:10  
**Scenario Analysis about LC-GHG Emission of Household Food Consumption Considering Household Characteristics**  
Naoki YOSHIKAWA, Koji AMANO, Koji SHIMADA

**D1-1610** 16:10-16:30  
**Life Cycle Inventory Analysis about Biogasification of Household Food and Paper Waste**  
Takeshi MATSUDA, Junya YANO, Yasuhiro HIRAI, Shin-Ichi SAKAI, Kazuo YAMADA, Mamoru OGIUCHI, Hiroaki HORI

General Session (Room D) November 10, 2010 16:50-18:10

### International Trade and Waste Management Issue

**D1-1650** 16:50-17:10  
**Exploring Lead Life Cycle from Inter-Country Trade**  
Masaaki FUSE, Kiyotaka TSUNEMI

**D1-1710** 17:10-17:30  
**Substance Flow Analysis on the Alloying Elements Associated with Steel Materials Based on WIO MFA Model**  
Hajime OHNO, Kazuyo MATSUBAE, Kenichi NAKAJIMA, Tetsuya NAGASAKA

**D1-1730** 17:30-17:50  
**Exploring the Benefits of Environmental Policy on Innovation and Market Behavior: the Japanese Experience in Dealing with Waste Management**  
Helmut YABAR, Michinori UWASU, Keishiro HARA

**D1-1750** 17:50-18:10  
**Mixed Metal Scrap in Japan and Its Export Control**  
Atsushi TERAZONO, Aya YOSHIDA



## Oral Session

### ► November 11, 2010

Special Session 1 (Room A) November 11, 2010 9:00-10:20

#### Sustainable Management of Agricultural and Biomass Resources Using the Life Cycle Approach (4)

**A2-0900** 9:00-9:20  
**Nutrient Recovery of the Effluent of Anaerobic Wastewater Treatment from Swine Farm by Magnesium Ammonium Phosphate Precipitation**  
 Sutha KHAODHIAR, Ramnaree NETVICHIAN,  
 Ampira CHAROENSAENG

**A2-0920** 9:20-9:40  
**Assessment of Nitrogen and Phosphorus Distribution from Pig Farming to Bang Pakong Basin, Thailand**  
 Wallapa KUPKANCHANAKUL,  
 Suphaphat KWONPONGSAGOON

**A2-0940 (Invited)** 9:40-10:00  
**Design-based Calculation of Life Cycle Inventory (LCI) Data for Fertilizer Production and Comparison of Results to Other LCI**  
 Evan M. GRIFFING, Michael OVERCASH,  
 Kiyotada HAYASHI, Masaei SATO

**A2-1000 (Invited)** 10:00-10:20  
**Extrapolation of Potential Phosphorus Production into the Future**  
 David A. VACCARI, Nicolay Strigul

Special Session 1 (Room A) November 11, 2010 10:40-12:00

#### Sustainable Management of Agricultural and Biomass Resources Using the Life Cycle Approach (5)

**A2-1040 (Invited)** 10:40-11:00  
**Phosphorus Recycling for Sustainable Agriculture and Industry**  
 Hisao OHTAKE

**A2-1100** 11:00-10:20  
**WIO-MFA on Phosphorus Recovery from the Waste Materials**  
 Kazuyo MATSUBAE, Jun KAJIYAMA,  
 Takehito HIRAKI, Tetsuya NAGASAKA

**A2-1120** 10:20-11:40  
**A Critical Review of Advanced Biofuels Life Cycle Analyses**  
 Fabio Machado MENTEN, Anne PRIEUR,  
 Jean-François BONNET, Henri BERTIN

**A2-1140** 11:40-12:00  
**A Well-to-wheel Greenhouse Gases Analysis of Cassava-based Ethanol Fuels in Thailand**  
 Seksan PAPONG, Chantima REWLAY-NGOEN,  
 Pomthong MALAKUL

Lunch (90 min.)

Poster Session A (Room E)

Core Time 1 (13:30-14:30)

Break (20 min.)

Special Session (Room A) November 11, 2010 14:50-16:30

#### Sustainable Management of Agricultural and Biomass Resources Using the Life Cycle Approach (6)

**A2-1450 (Invited)** 14:50-15:10  
**Sustainable Utilisation of Biomass Resources Using an Integrated Approach**  
 Shabbir H. GHEEWALA

**A2-1510** 15:10-15:30  
**An Indication of a Carbon-Footprint of Paprika Due to the Greenhouse Facilities with an Installation of Biomass Energy System**  
 Kiyoshi DOWAKI, Motoko YAMANARI,  
 Yoichiro TAKADA, Jun KAMIHIRATA

**A2-1530** 15:30-15:50  
**Environmental Challenges When Developing Renewable Materials to Replace Non-Renewable Materials – Receiving Guidance from LCA Studies**  
 Gunilla CLANCY, Morgan FRÖLING,  
 Magdalena SVANSTRÖM

**A2-1550** 15:50-16:10  
**Life Cycle Assessment of Novel Chemical Production: A Case Study of Biomass-derived Resin**  
 Yasunori KIKUCHI, Kazuya MAYUMI,  
 Masahiko HIRAO

**Discussion** 16:10-16:30

Break (20 min.)

Poster Session B (Room E)

Core Time 2 (16:50-17:50)

Banquet at 'GRAND PACIFIC LE DAIBA'

Special Session (Room B) November 11, 2010 9:00-10:20

#### Applications of LCA to New-technology Innovation (1)

**B2-0900** 9:00-9:20  
**Trend Analysis of Factors to Build Material Cycle in Biomass Town Concepts**  
 Rokuta INABA, Hidetoshi KURAMOCHI,  
 Masahiro OSAKO, Chihiro KAYO, Keisuke NANSAI,  
 Seiji HASHIMOTO

**B2-0920** 9:20-9:40  
**Klimatre: Wood for a Better Climate and Higher Value Added Products**  
 Marco IOTTI, Øyvind ERIKSEN,  
 Knut Magnus SANDLAND

**B2-0940** 9:40-10:00  
**Assessing Resource Saving Innovations in the Forest-Based Sector Industries**  
 Silke FEIFEL, Liselotte SCHEBEK,  
 Witold Roger POGANIETZ



## Oral Session

**B2-1000** 10:00-10:20  
**Environmental Impact Assessment in Consideration of Utilization form of Products: An Example of a Paperless Meeting**  
Takafumi NAKAJIMA, Hiroshi ONODA,  
Katsuya NAGATA

Break (20 min.)

Special Session (Room B) November 11, 2010 10:40-12:00

### Applications of LCA to New-technology Innovation (2)

**B2-1040** 10:40-11:00  
**Life Cycle Assessment of Virtual Meeting Solutions**  
Fredrik GULDBRANDSSON

**B2-1100** 11:00-11:20  
**Environmental Relief Effects of Nanotechnologies by the Example of CNT Composite Materials and Films**  
Arnim von GLEICH, Michael STEINFELDT,  
Jose Luis Leon HENKLE, Morinobu ENDO,  
Shingo MORIMOTO, Eishi MOMOSAKI

**B2-1120** 11:20-11:40  
**Eco-Balance of the Production Phases of Post Combustion CO<sub>2</sub>-Capture Technologies – A Comparison**  
Stefanie TROY, Hermann-Josef WAGNER

**B2-1140** 11:40-12:00  
**Value Chain Approach to WEEE Management**  
Maria Helena TÖRN, Johanna Elisa LAAKSONEN,  
Jukka Pekka HEISKANEN, Juha K KAILA

Lunch (90 min.)

Poster Session A (Room E)

Core Time 1 (13:30-14:30)

Break (20 min.)

General Session (Room B) November 11, 2010 14:50-16:30

### Carbon Resource Management in Energy System

**B2-1450** 14:50-15:10  
**Applicability of Co-evolutionary Cross-linkages in Terms of a) Environment-related Technological Innovations and b) Technology-related Built-environmental Re-designs to LCA Framework**  
Joy SEN

**B2-1510** 15:10-15:30  
**Research on Supply Chain Management of Photovoltaic Industry to Reduce CO<sub>2</sub> Emission in Global Perspective**  
Kotaro KAWAJIRI, Yutaka GENCHI

**B2-1530** 15:30-15:50  
**A Life Cycle Perspective on Geothermal Heat Pump Systems in Europe**  
Dominik SANER, Ronnie JURASKE,  
Markus KÜBERT, Philipp BLUM,  
Stefanie HELLWEG, Peter BAYER

**B2-1550** 15:50-16:10  
**Correlation Analysis on CO<sub>2</sub> Emission and Cost of Energy Resources and Life Cycle Assessment**  
Heetae KIM, Eun Chun KIM, Tae Kyu AHN

**B2-1610** 16:10-16:30  
**An Application of LCA to Clarification of CO<sub>2</sub> EOR as a Storage Option for CCS**  
Jitsopa SUEBSIRI, Malcolm WILSON

Break (20 min.)

Poster Session B (Room E)

Core Time 2 (16:50-17:50)

Banquet at 'GRAND PACIFIC LE DAIBA'

Special Session 2 (Room C) November 11, 2010 9:00-10:20

### Sustainable Mining from Natural and Urban Reserves (1)

**C2-0900** 9:00-9:20  
**Substance Flow Analysis of Zinc Correlated with South Korean Steel Industry**  
Yong Soo JEONG, Kazuyo MATSUBAE-YOKOYAMA,  
Jong-Jin PAK, Tetsuya NAGASAKA

**C2-0920** 9:20-9:40  
**Substance Flow Analysis of Cadmium in Korea**  
Minjung SON, Kyounghoon CHA,  
Yasunari MATSUNO, Vasilis M FTHENAKIS,  
Tak HUR

**C2-0940** 9:40-10:00  
**Dynamic Modeling of Cadmium Substance Flow with Zinc and Steel in Japan**  
Yasunari MATSUNO, Tak HUR, VASILIS

**C2-1000 (Invited)** 10:00-10:20  
**Domestic Material Flow of Zinc and Present Status of EAF Dust Management for Zinc Recovery in Taiwan**  
Hwong-wen MA, Kazuyo MATSUBAE,  
Min-Shing TSAI, Tetsuya NAGASAKA

Break (20 min.)

## Oral Session

Special Session 2 (Room C) November 11, 2010 10:40-12:00

### Sustainable Mining from Natural and Urban Reserves (2)

10:40-10:50

#### Sustainable mining from Natural and Urban Reserves

Shinsuke MURAKAMI, Kenichi NAKAJIMA

C2-1050 10:50-11:15

#### Metal Mining: Its Impact to Environment and Approaches to Mitigate

Hiroshi SHIMOTORI

C2-1115 11:15-11:35

#### A Practical and Rigorous Methodology for Integrating Sustainable Development Principles into Decision-making Processes at Minerals Processing Operations

Daniel TUAZON

C2-1135 (Invited) 11:35-12:00

#### A Possibility of CRT Recycling in a Lead Smelter from an Environmental Point of View

Takashi NAKAMURA, Etsuro SHIBATA,  
Toshikazu SHIRATORI

Lunch (90 min.)

Poster Session A (Room E)

Core Time 1 (13:30-14:30)

Break (20 min.)

Special Session (Room C) November 11, 2010 14:50-16:30

### Sustainable Mining from Natural and Urban Reserves (3)

C2-1450 (Invited) 14:50-15:10

#### Hybrid Ghoshian Framework for Mapping Industrial Metal Flow Networks: with a Case Study of South Korea

Sangwon SUH, Mi Ji SHIN, Seok Do JANG

C2-1510 15:10-15:30

#### The Grade of Materials in Urban Mine in Terms of Total Materials Requirement ~ A Comparison Among Electronics, Urban Buildings and Vehicle ~

Eiji YAMASUE, Ryota MINAMINO,  
Kazuyo Yokoyama MATSUBAE, Masaaki FUSE,  
Hideyuki OKUMURA, Keiichi N ISHIHARA

C2-1530 15:30-15:50

#### Consequential MFA – A New Approach to Integrate MFA and LCA

Laura SCHNEIDER, Matthias FINKBEINER

C2-1550 15:50-16:10

#### Thermodynamic Evaluation for the Controllability on Recovery/Removal of Elements in Some Metallurgical Processes

Osamu TAKEDA, Takahiro MIKI, Kenichi NAKAJIMA, Kazuyo MATSUBAE-YOKOYAMA,  
Tetsuya NAGASAKA

C2-1610 16:10-16:30

#### Sustainability Index of Metals

Kohmei HALADA, Nozomu KATAGIRI

Break (20 min.)

Poster Session B (Room E)

Core Time 2 (16:50-17:50)

Banquet at 'GRAND PACIFIC LE DAIBA'

General Session (Room D) November 11, 2010 9:00-10:20

### Resource and Environment in Asia (2)

D2-0900 9:00-9:20

#### Scenario Analysis on Zinc Recovery from Steel Making Dust in Thailand

Romchat CHAIRAKSA, Kazuyo MATSUBAE,  
Tetsuya NAGASAKA

D2-0920 9:20-9:40

#### Survey of Household Waste Generation and Willingness to Separate Waste Collection in Sri Lanka

Weranga Madhushan KAHAWE GURUGE,  
Takeshi FUJIWARA

D2-0940 9:40-10:00

#### A Brief Observation on Implementation of Taiwan Corporate Social Responsibility

Wang Kun CHEN, Charles Yannshi JIANG

D2-1000 10:00-10:20

#### Assessment of Potentiality and Social Acceptance of PSF and RWHS in South-West Coastal Region of Bangladesh

Sayed Mohammad NAZIM UDDIN,  
Uthpal KUMAR, Md Sazzad ANSARI

Break (20 min.)

General Session (Room D) November 11, 2010 10:40-12:00

### New Topics in LCA Database (1)

D2-1040 10:40-11:00

#### Lessons from Working in UNEP's Resource Panel Secretariat for Strengthening Resource Efficiency Indicators in LCA

Guido SONNEMANN, Sonia VALDIVIA

D2-1100 (Invited) 11:00-11:20

#### e-DEA as a Practical Design for Environment Tool

Andreas CIROTH, Michael SROCKA,  
Guillaume JOUANNE

## Oral Session

**D2-1120** 11:20-11:40  
**Facilitating a Harmonisation Process Across Product Carbon Footprint Standards and PCR's**  
Mark GOEDKOOP

**D2-1140** 11:40-12:00  
**Data Network of the International Reference Life Cycle Data System (ILCD)**  
Kirana CHOMKHAMSRI, Marc-Andree WOLF,  
Rana PANT, David PENNINGTON

Lunch (90 min.)  
Poster Session A (Room E)  
Core Time 1 (13:30-14:30)  
Break (20 min.)

General Session (Room D) November 11, 2010 14:50-16:30

### New Topics in LCA Database (2)

**D2-1450** 14:50-15:10  
**The Ecoinvent Database - Linking to the Global Market**  
Bo P. WEIDEMA

**D2-1510** 15:10-15:30  
**Development of Chinese Reference Life Cycle Database (CLCD)**  
Hongtao WANG

**D2-1530** 15:30-15:50  
**Life Cycle Inventories for Bioenergy: a German Database for Policy Support**  
Liselotte SCHEBEK, Andreas CIROTH,  
Clemens DÜPMEIER, Ludger ELTROP,  
Sonja SIMON, Peter VIEBAHN,  
Hermann-Josef WAGNER, Tobias ZSCHUNKE

**D2-1550** 15:50-16:10  
**Method Developed for Simplified Inventory-Data Estimation of Foreign-Made Products**  
Kensuke KOBAYASHI, Kiyotaka TAHARA,  
Baoren WEI

**D2-1610** 16:10-16:30  
**The Quebec National LCI Database Initiative: Database Development Without Reinventing the Wheel**  
Pascal LESAGE

Break (20 min.)  
Poster Session B (Room E)  
Core Time 2 (16:50-17:50)  
Banquet at 'GRAND PACIFIC LE DAIBA'

### ► November 12, 2010

Special Session 5 (Room A) November 12, 2010 10:00-12:00

### Index and Methods to Assess Socio-economic Impacts and Sustainability

**A3-1000 (Invited)** 10:00-10:20  
**Towards Life Cycle Sustainability Assessment - Integrating Social and Economic Aspects into Life Cycle Assessment**  
Matthias FINKBEINER, Erwin SCHAU,  
Marzia TRAVERSO

**A3-1020** 10:20-10:40  
**A UNEP/SETAC Tool Box for LC Sustainability Assessment of Products**  
Sonia VALDIVIA, Andreas CIROTH,  
Cassia Maria UGAYA, Bin LU, Joao FONTES,  
Sarah TISCHHAUSER, Guido SONNEMANN

**A3-1040** 10:40-11:00  
**Social Life Cycle Assessment of Biodiesel in South Africa: An Initial Assessment**  
Charles MBOHWA, Nonhlanhla MYAKA

**A3-1100** 11:00-11:20  
**Social Impact Index of ICT Services – Case Study of Videoconferences in Japan and France-**  
Kazue Ichino TAKAHASHI, Minako HARA,  
Masayuki TSUDA, Tatsuya KUNIOKA,  
Jiro NAKAMURA, Julien BOISSEAU,  
Tomoko TANAKA, Marc AUBREE,  
Ahmed ZEDDAM

**A3-1120** 11:20-11:40  
**Value Chain Approach to Management of Commercial and Industrial Waste**  
Johanna Elisa LAAKSONEN, Maria Helena TÖRN,  
Jukka Pekka HEISKANEN, Juha K. KAILA

**A3-1140** 11:40-12:00  
**Evaluating Return on Investment in Thermal Insulation for Houses Considering Non-Energy Benefits of Health and Well-Being**  
Rika EGUCHI, Toshiharu IKAGA,  
Shuzo MURAKAMI, Kumi OKUMURA

Lunch (90 min.)

Special Session 7 (Room A) November 12, 2010 13:30-15:10

### Applications of LCA to New-technology Innovation (3)

**A3-1330** 13:30-13:50  
**Contribution of a Technology Improvement in Greenhouse Gas Emission Reduction Considering Interactions among Corresponding Technologies under Future Circumstances**  
I-Ching CHEN, Yasuhiro FUKUSHIMA

## Oral Session

**A3-1350** 13:50-14:00  
**Transition of the Global Material Cycle Induced by the Introduction of Next-generation Vehicles**  
 Hiroki HATAYAMA, Ichiro DAIGO,  
 Yasunari MATSUNO, Yoshihiro ADACHI

**A3-1410** 14:10-14:30  
**Batteries Management for Minimization of Electric Vehicles' Environmental Impacts in a Life Cycle Assessment Framework**  
 Van Thanh Thuy DANG, Jerome ADNOT,  
 Cecile FOURNIER, Stephane MOREL,  
 Jasha OOSTERBAAN

**A3-1430** 14:30-14:50  
**Required Specifications of Plug-in Electric Vehicles for CO<sub>2</sub> Mitigation in Life Cycle Perspective**  
 Yuki KUDOH, Ryoko MOTOSE

**A3-1450** 14:50-15:10  
**Inventory Analysis of CO<sub>2</sub> Emission over the Electric Vehicle**  
 Mayumi ISOBE

Closing

General Session (Room B) November 12, 2010 10:00-12:00

### New Topics in LCA Database (3)

**B3-1000** 10:00-10:20  
**LCA Databases 2010 and Beyond – Basis to Improve Products and Services –**  
 Martin BAITZ, Fabian HASSEL, Cecilia COLODEL

**B3-1020** 10:20-10:40  
**US Activities in Making Life Cycle Inventory Data More Available to Users**  
 Mary Ann CURRAN

**B3-1040** 10:40-11:00  
**European Reference Life Cycle Database (ELCD)**  
 Marc-Andree WOLF, Kirana CHOMKHAMSRI,  
 Ugo PRETATO, Rana PANT, David PENNINGTON

**B3-1100** 11:00-11:20  
**Modeling Life Cycle Inventories for Agricultural Production and Biomass Utilization: Development of the NARO LCI Database**  
 Kiyotada HAYASHI, Susumu UCHIDA,  
 Shingo HOKAZONO, Masaei SATO,  
 Yasushi FURUSHIMA, Tomokazu OHTANI,  
 Kenichiro HADA

**B3-1120** 11:20-11:40  
**A Real-field LCA Method Using Ubiquitous Information Engineering**  
 Jae-Min CHA, Suk-Hwan SUH

**B3-1140** 11:40-12:00  
**Development of LCA Database Based on Japanese Input-output Tables and Its Application to Environmental Management**  
 Yoshinori KOBAYASHI

Lunch (90 min.)

General Session (Room B) November 12, 2010 13:00-15:10

### Environmental Education for Life Cycle Thinking

**B3-1330** 13:30-13:50  
**Citizen's Consciousness, Perceived Effectiveness and Practice of Environmental Behavior**  
 Eri AOKI, Kiyo KURISU, Jun NAKATANI,  
 Keisuke HANAKI

**B3-1350** 13:50-14:10  
**Motivation of Japanese Citizens to Utilize International Carbon Crediting and Individual Offsetting: An Experimental Survey Offering an Actual Offsetting Opportunity**  
 Hidenori NAKAMURA, Takaaki KATO

**B3-1410** 14:10-14:30  
**Biodiesel Production as a Framework for Sustainability and Life Cycle Thinking in an Introductory Engineering Course**  
 Stephanie FARRELL, Johannes STROBEL

**B3-1430** 14:30-14:50  
**Socio-psychological Impacts of the Introduction of PV Systems**  
 Hajime NODA, Hiroki HONDO

**B3-1450** 14:50-15:10  
**Life-Cycle Assessment of Material Recycling Based on Market Substitutability – A Case Study of PET Bottle Recycling –**  
 Jun NAKATANI, Asako OKUNO, Minoru FUJII,  
 Masahiko HIRAO

Closing

Special Session 8 (Room C) November 12, 2010 10:00-12:00

### Materials for Raising Environmental Consciousness of Consumers and Promoting Environmental Practices of Consumers (1)

**C3-1000** 10:00-10:20  
**New Aspects of Ecomaterials**  
 Yoshikazu SHINOHARA

**C3-1020 (Invited)** 10:20-10:40  
**Eco-materials Coverted from Natural Materials**  
 Di ZHANG, Jiajun GU, Shenming ZHU, Huilan SU,  
 Qinglei LIU, Tongxiang FAN, Jian DING, Qixin GUO



## Oral Session

**C3-1040 (Invited)** 10:40-11:00  
**Subjects on Fatigue Crack Generation in High Strength Alloys for Long-life Design**  
Osamu UMEZAWA

**C3-1100** 11:00-11:20  
**Precise Syntheses and Properties of New Bio-Based Polymers**  
Hideki ABE

**C3-1120** 11:20-11:40  
**Future Use of Wastes and Byproducts in the Cement Industry**  
Seiji HASHIMOTO, Kosuke KAWAI, Minoru FUJII, Chihiro KAYO, Rokuta INABA, Keisuke NANSAI, Tomohiro TASAKI, Masahiro OSAKO

**C3-1140** 11:40-12:00  
**Creating a New Industry Network Based on Gassification of Aquaculture Waste: Case Study for a Fishery Town in Hakodate**  
Atsumi FURUYA, Noritaka ASAKAWA, Motoi HIROSHIMA, Toru MATSUI, Keiichiro MOTOMATSU, Akira NAGANO, Shinichiro NAKAMURA

Lunch (90 min.)

Special Session 8 (Room C) November 12, 2010 13:30-15:10

**Materials for Raising Environmental Consciousness of Consumers and Promoting Environmental Practices of Consumers (2)**

**C3-1330 (Invited)** 13:30-13:50  
**Environmental Impact When Biofuels Are Used for Materials Road Transport: A Carbon Footprint Approach**  
Bruno DE BENEDETTI, Paolo TECCHIO, Sara ROLLINO

**C3-1350** 13:50-14:10  
**Evaluation of the Global Warming Impact and Water Consumption of Shopping Bags (Plastic, Paper, Cotton): Case Study in Thailand**  
Jitti MUNGKALASIRI, Pornpimon BOONKUM, Thumrongrut MUNGCHAROEN, Chantana YUVANIYAMA

**C3-1410** 14:10-14:30  
**Criteria on Metals for Sustainable Materials Management in Type I Eco-Labeling System**  
Ichiro DAIGO, Kenichi NAKAJIMA, Takashi FUJISAKI

**C3-1430** 14:30-14:50  
**In What Extent Existing Assessment Methods and Eco-Certification of Architectural Materials Can Turn the Construction Industry Green**  
Eirini Renata DIMITROKALI

**C3-1450** 14:50-15:10  
**Agricultural Tourism for Eco Balance**  
Pardip Singh SHEHRAWAT

Closing

Special Session 6 (Room D) November 12, 2010 10:00-12:00

**International Standardization of Environmental Management Accounting**

**D3-1000 (Invited)** 10:00-10:20  
**The Role of MFCA in Coping with the Challenges of 2020**  
Bernd WAGNER

**D3-1020** 10:20-10:40  
**The Impacts of MFCA Management to Corporate Financial Performances**  
Michiyasu NAKAJIMA, Asako KIMURA

**D3-1040** 10:40-11:00  
**MFCA Management in OMRON**  
Toshiaki HARADA

**D3-1100** 11:00-11:20  
**MFCA Management in Sekisui Chemical**  
Masashi NUMATA

**D3-1120** 11:20-11:40  
**Design of Experiments to Evaluate the Impact of Sensor Embedded Products on EOL Processing**  
Mehmet Ali ILGIN, Surendra M. GUPTA, Kenichi NAKASHIMA

**D3-1140** 11:40-12:00  
**International Standardization of MFCA (ISO 14051)**  
Yoshikuni FURUKAWA, Hiroshi TACHIKAWA

Lunch (90 min.)

General Session (Room D) November 12, 2010 13:30-15:10

**Risk Assessment and Management**

**D3-1330** 13:30-13:50  
**Sustainable Use of Contaminated Land in Taiwan-building a Risk Assessment Foundation and Lesson Learned**  
Hung-The TSAI, Chih HUANG, Chih-Hsiu SHEN, Su-Shin HUNG, Yu-Jen CHUNG

**D3-1350** 13:50-14:10  
**Decision Support Tool in Design of Metal Cleaning Process Based on Life Cycle and Risk Assessments**  
Hiroki MATOBA, Yasunori KIKUCHI, Masahiko HIRAO



## Oral Session

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**D3-1410** 14:10-14:30

**Risk Trade-offs between Brominated Flame Retardants and GHG Emissions from Life Cycle Perspective; Toward Sustainable Chemicals Assessment**

Satoshi MANAGAKI, Yasukazu YOKOYAMA,  
Shigeki MASUNAGA, Yuichi MIYAKE,  
Takeshi KOBAYASHI, Atsumi MIYAKE,  
Hiroki HONDO

**D3-1430** 14:30-14:50

**Human Exposure Assessment to Pesticides in Developing Countries: Pesticide Flow Analysis During Handed- and Motor-Pressurized Application**

Camilo LESMES FABIÁN,  
Glenda GARCÍA-SANTOS, Claudia BINDER

**D3-1450** 14:50-15:10

**PAHs Accumulation in the Life Cycle of Corn**

Shiyong DU, Guolan FAN

Closing



	Room A	Room B	Room C	Room D
Session	*[S-1] Sustainable Management of Agricultural and Biomass Resources Using the Life Cycle Approach (3)	Life Cycle Thinking on Building	*[S-4] Decoupling Environmental Impact and Resource Use from Economic Growth in Asia	International Trade and Waste Management Issue
16:50-17:10	A1-1650 <b>Non-CO<sub>2</sub> GHG Emission from Natural Processes in Carbon Footprint of Foods</b> Masanori SAITO (Tohoku University) Japan	B1-1650 <b>Case Studies in Lifecycle Building Design</b> Erin E. MOORE (University of Oregon) United States	C1-1650 <b>Resource Efficiency: Economics and Outlook for the Asia-Pacific Region</b> Heinz SCHANDL (CSIRO Sustainable Ecosystems) Australia	D1-1650 <b>Exploring Lead Life Cycle from Inter-Country Trade</b> Masaaki FUSE (National Institute of Advanced Industrial Science and Technology) Japan
17:10-17:30	A1-1710 <b>Sustainable Food Production</b> Johanna TELIEPS (Alanus University) Germany	B1-1710 <b>The Role of LCA in the German Sustainable Building Certification</b> Bastian WITTSTOCK (University of Stuttgart) Germany	C1-1710 <b>Evaluating Industrial Energy Efficiency and Resource Productivity on the Basis of Taiwan Economy-Wide Material Flow Inventory</b> Guan-Lin LU (National Taipei University) Taiwan, R.O.C.	D1-1710 <b>Substance Flow Analysis on the Alloying Elements Associated with Steel Materials Based on WIO MFA Model</b> Hajime OHNO (Tohoku University) Japan
17:30-17:50	A1-1730 <b>Greenhouse Gas Emissions for Calculating Carbon Footprint of Sugar Production: A Case Study in Eastern Thailand</b> Monthira YUTTITHAM (The Joint Graduate School of Energy and Environment) Thailand	B1-1730 <b>Relationship between Urban Infrastructure and Compactness for Chinese Cities</b> Jinling FEI (Nagoya University) Japan	C1-1730 <b>Municipal Waste Banking System in Thailand: Lesson Learned from Sakonnakorn Province</b> Chanathip PHARINO (Chulalongkorn University) Thailand	D1-1730 <b>Exploring the Benefits of Environmental Policy on Innovation and Market Behavior: The Japanese Experience in Dealing with Waste Management</b> Helmut YABAR (University of Tsukuba) Japan
17:50-18:10	A1-1750 <b>Carbon Footprinting of Thai Rice Products: Practical Issues for Harmonised Methodology</b> Rattawan MUNGKUNG (Kasetsart University) Thailand	B1-1750 <b>Ecological Design of Green Roofs for Sustainable Cities</b> C.Y. JIM (The University of Hong Kong) Hong Kong	C1-1750 <b>Structural Properties of Global GHG Emissions and Resource Networks Embedded in Product Supply Chain</b> Keisuke NANSAI (National Institute for Environmental Studies) Japan	D1-1750 <b>Mixed Metal Scrap in Japan and Its Export Control</b> Atsushi TERAZONO (National Institute for Environmental Studies) Japan

11 <sup>th</sup> Nov.				
Session	*[S-1] Sustainable Management of Agricultural and Biomass Resources Using the Life Cycle Approach (4)	*[S-7] Applications of LCA to New-technology Innovation (1)	*[S-2] Sustainable Mining from Natural and Urban Reserves (1)	Resource and Environment in Asia (2)
9:00-9:20	A2-0900 <b>Nutrient Recovery of the Effluent of Anaerobic Wastewater Treatment from Swine Farm by Magnesium Ammonium Phosphate Precipitation</b> Sutha KHAODHIAR (Chulalongkorn University) Thailand	B2-0900 <b>Trend Analysis of Factors to Build Material Cycle in Biomass Town Concepts</b> Rokuta INABA (National Institute for Environmental Studies) Japan	C2-0900 <b>Substance Flow Analysis of Zinc Correlated with South Korean Steel Industry</b> Yong Soo JEONG (Tohoku University) Japan	D2-0900 <b>Scenario Analysis on Zinc Recovery from Steel Making Dust in Thailand</b> Romchat CHAIRAKSA (Tohoku University) Japan
9:20-9:40	A2-0920 <b>Assessment of Nitrogen and Phosphorus Distribution from Pig Farming to Bang Pakong Basin, Thailand</b> Wallapa KUPKANCHANAKUL (Mahidol University) Thailand	B2-0920 <b>Klimatre: Wood for a Better Climate and Higher Value Added Products</b> Marco IOTTI (PFI AS) Norway	C2-0920 <b>Substance Flow Analysis of Cadmium in Korea</b> Minjung SON (Konkuk University) Republic of Korea	D2-0920 <b>Survey of Household Waste Generation and Willingness to Separate Waste Collection in Sri Lanka</b> Weranga Madhushan KAHAWE GURUGE (Okayama University) Japan
9:40-10:00	A2-0940 <b>Design-Based Calculation of Life Cycle Inventory (LCI) Data for Fertilizer Production and Comparison of Results to Other LCI</b> Evan M. GRIFFING (Environmental Clarity LLC) United States	B2-0940 <b>Assessing Resource Saving Innovations in the Forest-Based Sector Industries</b> Silke FEIFEL (Karlsruhe Institute of Technology) Germany	C2-0940 <b>Dynamic Modeling of Cadmium Substance Flow with Zinc and Steel in Japan</b> Yasunari MATSUNO (The University of Tokyo) Japan	D2-0940 <b>A Brief Observation on Implementation of Taiwan Corporate Social Responsibility</b> Wang Kun CHEN (Jin-wen University of Science and Technology) Taiwan, R.O.C.
10:00-10:20	A2-1000 <b>Extrapolation of Potential Phosphorus Production into the Future</b> David A. VACCARI (Stevens Institute of Technology) United States	B2-1000 <b>Environmental Impact Assessment in Consideration of Utilization form of Products: An Example of a Paperless Meeting</b> Takafumi NAKAJIMA (Waseda University) Japan	C2-1000 <b>Domestic Material Flow of Zinc and Present Status of EAF Dust Management for Zinc Recovery in Taiwan</b> Hwong-wen MA (National Taiwan University) Taiwan, R.O.C.	D2-1000 <b>Assessment of Potentiality and Social Acceptance of PSF and RWHS in South-West Coastal Region of Bangladesh</b> Sayed Mohammad NAZIM UDDIN (Nagoya University) Japan
10:20-10:40	Break			



	Room A	Room B	Room C	Room D
	<b>*[S-1] Sustainable Management of Agricultural and Biomass Resources Using the Life Cycle Approach (5)</b>	<b>*[S-7] Applications of LCA to New-technology Innovation (2)</b>	<b>*[S-2] Sustainable Mining from Natural and Urban Reserves (2)</b>	<b>New Topics in LCA Database (1)</b>
10:40-11:00	A2-1040 Invited <b>Phosphorus Recycling for Sustainable Agriculture and Industry</b> Hisao OHTAKE (Osaka University) Japan	B2-1040 <b>Life Cycle Assessment of Virtual Meeting Solutions</b> Fredrik GULDBRANDSSON (Ericsson Research) Sweden	10:40-10:50 <b>Sustainable mining from Natural and Urban Reserves</b> Shinsuke MURAKAMI (University of Tokyo) Kenichi NAKAJIMA (National Institute for Environmental Studies) Japan	D2-1040 <b>Lessons from Working in UNEP's Resource Panel Secretariat for Strengthening Resource Efficiency Indicators in LCA</b> Guido SONNEMANN (United Nations Environment Programme) France
11:00-11:20	A2-1100 <b>WIO-MFA on Phosphorus Recovery from the Waste Materials</b> Kazuyo MATSUBAE (Tohoku University) Japan	B2-1100 <b>Environmental Relief Effects of Nanotechnologies by the Example of CNT Composite Materials and Films</b> Arnim Von GLEICH (University of Bremen) Germany	C2-1050 10:50-11:15 <b>Metal Mining: Its Impact to Environment and Approaches to Mitigate</b> Hiroshi SHIMOTORI (Japan Oil, Gas and Metals National Corporation) Japan	D2-1100 Invited <b>e-DEA as a Practical Design for Environment Tool</b> Andreas CROTH (GreenDeltaC) Germany
11:20-11:40	A2-1120 <b>A Critical Review of Advanced Biofuels Life Cycle Analyses</b> Fabio Machado MENTEN (IFP Energies nouvelles) France	B2-1120 <b>Eco-Balance of the Production Phases of Post Combustion CO<sub>2</sub>-Capture Technologies – A Comparison</b> Stefanie TROY (Ruhr-University Bochum) Germany	C2-1115 11:15-11:35 <b>A Practical and Rigorous Methodology for Integrating Sustainable Development Principles into Decision-making Processes at Minerals Processing Operations</b> Daniel TUAZON (Sustainable Minerals Institute) Australia	D2-1120 <b>Facilitating a Harmonisation Process Across Product Carbon Footprint Standards and PCR's</b> Mark GOEDKOOOP (PRé Consultants) Netherlands
11:40-12:00	A2-1140 <b>A Well-to-wheel Greenhouse Gases Analysis of Cassava-based Ethanol Fuels in Thailand</b> Seksan PAPONG (National Metal and Materials Technology Center) Thailand	B2-1140 <b>Value Chain Approach to WEEE Management</b> Maria Helena TÖRN (Aalto University) Finland	C2-1135 Invited 11:35-12:00 <b>A Possibility of CRT Recycling in a Lead Smelter from an Environmental Point of View</b> Takashi NAKAMURA (Tohoku University) Japan	D2-1140 <b>Data Network of the International Reference Life Cycle Data System (ILCD)</b> Kirana CHOMKHAMSRU (European Commission, Joint Research Centre) Italy
12:00-13:30	Lunch			
13:30-14:30	Poster Session A			
14:30-14:50	Break			
	<b>*[S-1] Sustainable Management of Agricultural and Biomass Resources Using the Life Cycle Approach (6)</b>	<b>Carbon Resource Management in Energy System</b>	<b>*[S-2] Sustainable Mining from Natural and Urban Reserves (3)</b>	<b>New Topics in LCA Database (2)</b>
14:50-15:10	A2-1450 Invited <b>Sustainable Utilisation of Biomass Resources Using an Integrated Approach</b> Shabbir H. GHEEWALA (Joint Graduate School of Energy and Environment) Thailand	B2-1450 <b>Applicability of Co-Evolutionary Cross-Linkages in Terms of a) Environment-Related Technological Innovations and b) Technology-Related Built-Environmental Re-Designs to LCA Framework</b> Joy SEN (IIT Kharagpur) India	C2-1450 Invited <b>Hybrid Ghoshian Framework for Mapping Industrial Metal Flow Networks: With a Case Study of South Korea</b> Sangwon SUH (University of California in Santa Barbara) United States	D2-1450 <b>The Ecoinvent Database – Linking to the Global Market</b> Bo P. WEIDEMA (ecoinvent) Switzerland
15:10-15:30	A2-1510 <b>An Indication of a Carbon-Footprint of Paprika Due to the Greenhouse Facilities with an Installation of Biomass Energy System</b> Kiyoshi DOWAKI (Tokyo University of Science) Japan	B2-1510 <b>Research on Supply Chain Management of Photovoltaic Industry to Reduce CO<sub>2</sub> Emission in Global Perspective</b> Kotaro KAWAJIRI (National Institute of Advanced Industrial Science and Technology) Japan	C2-1510 <b>The Grade of Materials in Urban Mine in Terms of Total Materials Requirement ~ A Comparison among Electronics, Urban Buildings and Vehicle ~</b> Eiji YAMASUE (Kyoto University) Japan	D2-1510 <b>Development of Chinese Reference Life Cycle Database (CLCD)</b> Hongtao WANG (Sichuan University) China
15:30-15:50	A2-1530 <b>Environmental Challenges When Developing Renewable Materials to Replace Non-Renewable Materials – Receiving Guidance from LCA Studies</b> Gunilla CLANCY (Chalmers University of Technology) Sweden	B2-1530 <b>A Life Cycle Perspective on Geothermal Heat Pump Systems in Europe</b> Dominik SANER (ETH Zurich) Switzerland	C2-1530 <b>Consequential MFA – A New Approach to Integrate MFA and LCA</b> Laura SCHNEIDER (Technische Universität Berlin) Germany	D2-1530 <b>Life Cycle Inventories for Bioenergy: A German Database for Policy Support</b> Liselotte SCHEBEK (Karlsruher Institut für Technologie, ITAS-ZTS) Germany
15:50-16:10	A2-1550 <b>Life Cycle Assessment of Novel Chemical Production: A Case Study of Biomass-Derived Resin</b> Yasunori KIKUCHI (The University of Tokyo) Japan	B2-1550 <b>Correlation Analysis on CO<sub>2</sub> Emission and Cost of Energy Resources and Life Cycle Assessment</b> Heetae KIM (Sungkyunkwan University) Republic of Korea	C2-1550 <b>Thermodynamic Evaluation for the Controllability on Recovery/Removal of Elements in Some Metallurgical Processes</b> Osamu TAKEDA (Tohoku University) Japan	D2-1550 <b>Method Developed for Simplified Inventory –Data Estimation of Foreign-Made Products</b> Kensuke KOBAYASHI (Tokyo University of Science) Japan
16:10-16:30	<b>Discussion</b>	B2-1610 <b>An Application of LCA to Clarification of CO<sub>2</sub> EOR as a Storage Option for CCS</b> Jitsopa SUEBSIRI (IPAC-CO <sub>2</sub> ) Canada	C2-1610 <b>Sustainability Index of Metals</b> Kohmei HALADA (National Institute for Materials Science) Japan	D2-1610 <b>The Quebec National LCI Database Initiative: Database Development without Reinventing the Wheel</b> Pascal LESAGE (CIRAIG) Canada
16:30-16:50	Break			
16:50-17:50	Poster Session B			
18:30-20:30	Banquet at 'GRAND PACIFIC LE DAIBA'			



Room A					Room B					Room C					Room D				
12 <sup>th</sup> Nov.																			
*[S-5] Index and Methods to Assess Socio-economic Impacts and Sustainability					New Topics in LCA Database (3)					*[S-8] Materials for Raising Environmental Consciousness of Consumers and Promoting Environmental Practices of Consumers					*[S-6] International Standardization of Environmental Management Accounting				
10:00-10:20	A3-1000 Invited	<b>Towards Life Cycle Sustainability Assessment – Integrating Social and Economic Aspects into Life Cycle Assessment</b> Matthias FINKBEINER (Technische Universite Berlin) Germany	B3-1000	<b>LCA Databases 2010 and Beyond – Basis to Improve Products and Services –</b> Martin BAITZ (PE International GmbH) Germany	C3-1000	<b>New Aspects of Ecomaterials</b> Yoshikazu SHINOHARA (National Institute for Materials Science) Japan	D3-1000 Invited	<b>The Role of MFCA in Coping with the Challenges of 2020</b> Bernd WAGNER (University of Augsburg) Germany											
10:20-10:40	A3-1020	<b>A UNEP/SETAC Tool Box for LC Sustainability Assessment of Products</b> Sonia VALDIVIA (United Nations Environment Programme DTIE) France	B3-1020	<b>US Activities in Making Life Cycle Inventory Data More Available to Users</b> Mary Ann CURRAN (US Environmental Protection Agency) United States	C3-1020 Invited	<b>Eco-Materials Covered from Natural Materials</b> Di ZHANG (Shanghai Jiaotong university) China	D3-1020	<b>The Impacts of MFCA Management to Corporate Financial Performances</b> Michiyasu NAKAJIMA (Kansai University) Japan											
10:40-11:00	A3-1040	<b>Social Life Cycle Assessment of Biodiesel in South Africa: an Initial Assessment</b> Charles MBOHWA (University of Johannesburg) South Africa	B3-1040	<b>European Reference Life Cycle Database (ELCD)</b> Marc-Andree WOLF (Joint Research Centre) Italy	C3-1040 Invited	<b>Subjects on Fatigue Crack Generation in High Strength Alloys for Long-Life Design</b> Osamu UMEZAWA (Yokohama National University) Japan	D3-1040	<b>MFCA Management in OMRON</b> Toshiaki HARADA (OMRON Co.) Japan											
11:00-11:20	A3-1100	<b>Social Impact Index of ICT Services – Case Study of Videoconferences in Japan And France –</b> Kazue Ichino TAKAHASHI (Nippon Telegraph and Telephone Corporation) Japan	B3-1100	<b>Modeling Life Cycle Inventories for Agricultural Production and Biomass Utilization: Development of The NARO LCI Database</b> Kiyotada HAYASHI (National Agriculture and Food Research Organization) Japan	C3-1100	<b>Precise Syntheses and Properties of New Bio-Based Polymers</b> Hideki ABE (RIKEN Biomass Engineering Program) Japan	D3-1100	<b>MFCA Management in Sekisui Chemical</b> Masashi NUMATA (Sekisui Chemical Co., Ltd.) Japan											
11:20-11:40	A3-1120	<b>Value Chain Approach to Management of Commercial and Industrial Waste</b> Johanna Elisa LAAKSONEN (Aalto University) Finland	B3-1120	<b>A Real-Field LCA Method Using Ubiquitous Information Engineering</b> Jae-Min CHA (POSTECH) Republic of Korea	C3-1120	<b>Future Use of Wastes and Byproducts in the Cement Industry</b> Seiji HASHIMOTO (National Institute for Environmental Studies) Japan	D3-1120	<b>Design of Experiments to Evaluate the Impact of Sensor Embedded Products on EOL Processing</b> Mehmet Ali ILGIN (Dokuz Eylul University) Turkey											
11:40-12:00	A3-1140	<b>Evaluating Return on Investment in Thermal Insulation for Houses Considering Non-Energy Benefits of Health and Well-Being</b> Rika EGUCHI (Keio University) Japan	B3-1140	<b>Development of LCA database based on Japanese Input-Output tables and Its Application to Environmental Management</b> Yoshinori KOBAYASHI (Toshiba Corporation) Japan	C3-1140	<b>Creating a New Industry Network Based on Gassification of Aquaculture Waste: Case Study for a Fishery Town in Hakodate</b> Atsumi FURUYA (Hokkaido University) Japan	D3-1140	<b>International Standardization of MFCA (ISO 14051)</b> Yoshikuni FURUKAWA (Nitto Denko Corporation) Japan											
12:00-13:30 Lunch																			
*[S-7] Applications of LCA to New-technology Innovation (3)					Environmental Education for Life Cycle Thinking					*[S-8] Materials for Raising Environmental Consciousness of Consumers and Promoting Environmental Practices of Consumers					Risk Assessment and Management				
13:30-13:50	A3-1330	<b>Contribution of a Technology Improvement in Greenhouse Gas Emission Reduction Considering Interactions among Corresponding Technologies under Future Circumstances</b> I-Ching CHEN (National Cheng Kung University / The University of Tokyo) Japan	B3-1330	<b>Citizen's Consciousness, Perceived Effectiveness and Practice of Environmental Behavior</b> Eri AOKI (The University of Tokyo) Japan	C3-1330 Invited	<b>Environmental Impact when Biofuels are Used for Materials Road Transport: A Carbon Footprint Approach</b> Bruno DE BENEDETTI (Politecnico di Torino) Italy	D3-1330	<b>Sustainable Use of Contaminated Land in Taiwan-building a Risk Assessment Foundation and Lesson Learned</b> Hung-The TSAI (Environmental Protection Administrative) Taiwan, R.O.C.											
13:50-14:10	A3-1350	<b>Transition of the Global Material Cycle Induced by the Introduction of Next-Generation Vehicles</b> Hiroki HATAYAMA (The University of Tokyo) Japan	B3-1350	<b>Motivation of Japanese Citizens to Utilize International Carbon Crediting and Individual Offsetting: An Experimental Survey Offering an Actual Offsetting Opportunity</b> Hidenori NAKAMURA (Institute for Global Environmental Strategies) Japan	C3-1350	<b>Evaluation of the Global Warming Impact and Water Consumption of Shopping Bags (Plastic, Paper, Cotton): Case Study in Thailand</b> Jitti MUNGKALASIRI (National Metal and Materials Technology Center) Thailand	D3-1350	<b>Decision Support Tool in Design of Metal Cleaning Process Based on Life Cycle and Risk Assessments</b> Hiroki MATOBA (The University of Tokyo) Japan											
14:10-14:30	A3-1410	<b>Batteries Management for Minimization of Electric Vehicles' Environmental Impacts in a Life Cycle Assessment Framework</b> Van Thanh Thuy DANG (Renault) France	B3-1410	<b>Biodiesel Production as a Framework for Sustainability and Life Cycle Thinking in an Introductory Engineering Course</b> Johannes STROBEL (Rowan University) United States	C3-1410	<b>Criteria on Metals for Sustainable Materials Management in Type I Eco- Labelling System</b> Ichiro DAIGO (The University of Tokyo) Japan	D3-1410	<b>Risk Trade-Offs between Brominated Flame Retardants and GHG Emissions from Life Cycle Perspective; Toward Sustainable Chemicals Assessment</b> Satoshi MANAGAKI (Yokohama National University) Japan											



	Room A	Room B	Room C	Room D
14:30-14:50	<b>A3-1430 Required Specifications of Plug-in Electric Vehicles for CO<sub>2</sub> Mitigation in Life Cycle Perspective</b> Yuki KUDOH (National Institute of Advanced Industrial Science and Technology) Japan	<b>B3-1430 Socio-Psychological Impacts of the Introduction of PV Systems</b> Hajime NODA (Yokohama National University) Japan	<b>C3-1430 In What Extent Existing Assessment Methods and Eco-Certification of Architectural Materials Can Turn the Construction Industry Green</b> Eirini Renata DIMITROKALI (University of Central Lancashire) United Kingdom	<b>D3-1430 Human Exposure Assessment to Pesticides in Developing Countries: Pesticide Flow Analysis during Handed- And Motor-Pressurized Application</b> Camilo LESMES FABIÁN (University of Graz) Austria
14:50-15:10	<b>A3-1450 Inventory Analysis of CO<sub>2</sub> Emission over the Electric Vehicle</b> Mayumi ISOBE (Nissan Motor Co., LTD.) Japan	<b>B3-1450 Life-Cycle Assessment of Material Recycling Based on Market Substitutability – A Case Study of Pet Bottle Recycling –</b> Jun NAKATANI (The University of Tokyo) Japan	<b>C3-1450 Agricultural Tourism for Eco Balance</b> Pardip Singh SHEHRAWAT (CCS Haryana Agricultural University) India	<b>D3-1450 PAHs Accumulation in the Life Cycle of Corn</b> Shiyong DU (Jinan Environmental Protection Research Institute) China
15:10-16:10	<b>Closing</b>			
16:10-16:50	<b>Farewell Party (Room E)</b>			

(As of 15<sup>th</sup> October, 2010)

## Poster Session

Poster session A (13:30-14:30) ..... Numbers with underline  
Poster session B (16:50-17:50) ..... Numbers without underline

- P-001** **Sustainability of the Hydrogen Economy: A Focus on South Africa**  
Junior Mabiza MA MABIZA, Charles MBOHWA
- P-002** **Gaining Host Community Approval for Siting Renewable Energy Facilities**  
Leighton K. CHONG
- P-003** **The Blue Revolution: The Oceans As Ultimate Sustainable Resource**  
Patrick K. TAKAHASHI, Leighton K. CHONG
- P-004** **Life Cycle CO<sub>2</sub> Emissions by New Power Generation Technologies in Japan**  
Ei-ichi IMAMURA, Koji NAGANO
- P-005** **Environmental and Economic Evaluation for Accomplishing Food Waste Recycling Loop in Japan**  
Miki TAKATA, Kazuyo FUKUSHIMA,  
Norio NAGAO, Chiaki NIWA, Tatsuki TODA
- P-006** **The Potential for Sustainable Management of Biomass Resources in the South African Sugar Industry**  
Takalani Musundwa NEMARUMANE,  
Charles MBOHWA
- P-007** **Assessing Social Sustainability of Bio-ethanol in the South African Sugar Industry**  
Janet Paidamoyo DUMA, Charles MBOHWA
- P-008** **Life Cycle Assessment on Introduction of Biogas Plant in Hokkaido**  
Nobuo YABE
- P-009** **Development of Estimation Model for Environmental Load of Architectural Woods**  
Yusuke NAMBU, Toshiharu IKAGA,  
Yuko TSUNETSUGU, Kensuke KOBAYASHI,  
Shun KAWAKUBO, Kumi OKUMURA
- P-010** **Follow-up Study on Lifecycle Assessment of Bio Diesel Fuel Business Derived from Waste Cooking Oil**  
Jinmei YANG, Mitsuru KAI, Takeshi FUJIWARA,  
Ayaka GOTO
- P-011** **Soft-carbohydrate-rich rice straw: a potential raw material for Bio-ethanol**  
Takahiro ORIKASA, Ken TOKUYASU,  
Jeung-Yil PARK, Motohiko KONDO,  
Yumiko SANOH, Takashi INOUE,  
Koji KOJIMA, Toshikazu YANO,  
Poritosh ROY, Takeo SHIINA
- P-012** **"Kampong Biogas"- Village Energy Independent as a Professional Firm by Poor Citizen, Case Study in Indonesia**  
Rayendra ANANDIKA, Siska ADITYA,  
Muhammad Ibrahim ATS-TSAURI,  
Satwika Matahari ADYUTAWATI, WIJAYA,  
Nugroho Slamet WIJIYANTO, Atik MUTTAQIN
- P-013** **Environmental Impact Assessment of Rapeseed Cultivation in Korea using LCA**  
Seung-Gil HONG, Joungdu SHIN,  
Soon-Ik KWON, Woo-Kyun PARK,  
Deog-Bae LEE, Jeong-Gyu KIM, Jae-Jak NAM
- P-014** **Life Cycle Assessment of Bioethanol Produced from Rice Straw by Enzymatic Hydrolysis Process**  
Poritosh ROY, Ken TOKUYASU,  
Takahiro ORIKASA, Nobutaka NAKAMURA,  
Takeo SHIINA
- P-015** **Greenhouse Gas Mitigation Potential of Bioenergy Production: A Case Study of Biogas and Biodiesel Production in Indonesia**  
Hirotsugu KAMAHARA, Udin HASANUDIN,  
Naohiro GOTO, Hiroyuki DAIMON,  
Koichi FUJIE
- P-016** **Inventory Analysis of Boilers Operated with Emulsified Biomass Fuel**  
Kunio SATO, Takashi FUKUSHIMA,  
Satoshi OHTSU, Kazuaki MARUHASHI,  
Yukio ITO, Yuki ITO, Tadahiro YAMAGUCHI
- P-017** **An LCA Case Study on Co-firing of Semi-carbonized Fuel Made from Thinning Woods in Coal Fired Power Plant**  
Yutaka GENCHI Tomohiro TABATA,  
Tsuyoshi TORIKAI, Mineo TSURUMAKI,  
Koji UKEGAWA



## Poster Session

Poster session A (13:30-14:30) ..... Numbers with underline  
 Poster session B (16:50-17:50) ..... Numbers without underline

- P-018** **Life Cycle Assessment of Renewable Diesel from Palm Oil: Energy and Greenhouse Gas Aspects**  
 Chantima REWLAY-NGOEN, Seksan PAPONG,  
 Manit NITTHITHANAKUL,  
 Pomthong MALAKUL
- P-019** **Eco-efficiency Analysis of the Biodiesel from Used Cooking Oil: Data Envelopment Analysis**  
 Kanako TAKEZONO
- P-020** **Integrated Life Cycle Assessment of Second Generation Bioenergy Systems: An Indian Case Study**  
 Joana PORTUGAL, Jun NAKATANI,  
 Kiyo KURISU, Keisuke HANAKI
- P-021** **High Valued Diversified Agriculture for Sustainable Environment**  
 Pardip Singh SHEHRAWAT
- P-022** **Life Cycle Assessment Study on Environmental Performance of Skim Rubber Production Using Novel Technology**  
 Kittipoj DATCHANEEKUL,  
 Tassaneewan CHOM-IN,  
 Sirichai PATTANAWANIDCHAI,  
 Chaveewan KONGKAEW,  
 Surapich LOYKULNANT,  
 Soottiwan NOKSA-NGA,  
 Seksan PAPONG, Pomthong MALAKUL
- P-023** **Life Cycle Assessment of Organic Soybean Production in Paddy Fields under Rotational Cropping**  
 Shingo HOKAZONO, Kiyotada HAYASHI,  
 Masaei SATO
- P-024** **Questionnaire Survey on the Greenhouse Gas Emissions from Feed Production System Using Food Residuals**  
 Tatsuo HISHINUMA, Yutaka GENCHI,  
 Akifumi OGINO, Tomoyuki KAWASHIMA,  
 Kazunori AWAJI, Masakazu NAGAKI
- P-025** **Life Cycle Assessment of Pesticides for Paddy Rice: the Relationship between Impacts of Production and Impacts of Application**  
 Kiyotada HAYASHI, Masaei SATO,  
 Susumu UCHIDA, Peter FANTKE, Shanna SHAKED, Shingo HOKAZONO, Olivier JOLLIET
- P-026** **Inventory Analysis of Local Lumber on Each Stage of Forestry, Manufacturing and Distribution**  
 Yusuke NAMBU, Toshiharu IKAGA,  
 Shun KAWAKUBO, Kumi OKUMURA
- P-027** **Phosphorus Recovering from Carbonized Sewage Sludge by Hydrothermal Processes**  
 Masaaki TAKAHASHI, Yukimasa TAKEMOTO
- P-028** **The Effect of Rambutan Peel (Nephelium Lappaceum) as Reducing Agent on In Vitro Methan Production Within Creating Environment Friendly Farming**  
 Siska ADITYA, Natasha Milzandra  
 FEMMAYROSSIE, Thoriqul Irfah ALHUDA,  
 Fariz Ahmad FADILLAH,  
 Tombak Mahesa BAGASKORO
- P-029** **Estimation of GHG Reduction Effect Using Amino Acid for Feeds**  
 Susumu TSUJIMOTO, Takashi OSADA,  
 Izuru SHINZATO
- P-030** **Life Cycle Inventory Analysis of Rice Husk Use in an Giang Province, Vietnam**  
 Thao Thi Mai PHAM
- P-031** **Seedling Density in an Elevation Gradient in Northeastern Mexico according to Climate Change**  
 Enrique JURADO, Jaime GARCÍA
- P-032** **Allocation Procedure in Livestock Industry: Case Study of Dairy Cow**  
 Yoo-Sung PARK, Chun-Youl BAEK,  
 Kyu-Hyun PARK, Kun-Mo LEE
- P-033** **The Environmental Consequences of Changing the Forage Base in Australian Pasture-based Feeding Systems**  
 Şeyda ÖZKAN, Julian HILL
- P-034** **Traditional Knowledge as a Fundamental Input for Natural Resource Management and Sustainable Livelihoods in Mountain Habitats: Learning from Farmers in Uttarakhand, India**  
 Vir SINGH, Neelendra K JOSHI
- P-035** **Development of Biodiversity Damage Assessment Considering Extinction Risk**  
 Ken Horiguchi, Norihiro ITSUBO



## Poster Session

Poster session A (13:30-14:30) ..... Numbers with underline  
Poster session B (16:50-17:50) ..... Numbers without underline

**P-036 Implementation of Biodiversity Management in Pharma Industry**

Anna Franziska GAST, Johanna TELIEPS

**P-037 Population Ecology of Host-Parasite Persistence Thresholds**

Ali Abdullah SHATI, Xavier LAMBIN

**P-038 Biodiversity of Phyllosphere and Phyllopalne Microflora of Green Houses' Vegetables in Aseer Region, Saudi Arabia**

Saad Abdulrahman ALAMRI,  
Mohamed Mohamed HASHEM,  
Yasser Sabry MOSTAFA

**P-039 Biodiversity of Freshwater Fishes in Selected Agroecological Zones in Southern India**

D. SANNA DURGAPPA

**P-040 Eco-Efficiency of Rainwater Harvesting in the Design of Mediterranean Neighbourhoods**

Sara ANGRILL, Ramon FARRENY,  
Carles MARTÍNEZ, Bernat VIÑOLAS,  
Tito MORALES, Xavier GABARRELL,  
Alejandro JOSA, Joan RIERADEVALL

**P-041 Simplified LCA of Irrigation Facilities in Korea: A Case Study of Dam and Pumping Station**

Young Deuk KIM, Norihiro ITSUBO,  
Yo-Han CHOI

**P-042 Water-Use Related Impacts on Terrestrial Ecosystems: the Case of Milk Production in Peru**

Francesca VERONES, Karin BARTL,  
Annette KOEHLER, Stephan PFISTER,  
Stefanie HELLWEG

**P-043 The Benefits of Industrial Symbiosis and Carbon Reduction at Taoyuan ESTP of Taiwan**

Yen-Chuan CHEN, Hsuan-Chi CHEN,  
Tzu-Yar LIU, Jui-Hsi YEN, Yi-Hua LI,  
Chi-Ming CHIU, Ying-Ying LAI,  
Jiunn-Iuan WANG

**P-044 Eco-labeling: Requirements for a Consistent Marketing**

Markus MAU, Johanna TELIEPS

**P-045 Changing Environmental Regulations and the Electronics Industry**

John MESSINA, Kevin BRADY

**P-046 Environmental Tax of Products and Services Based on Life Cycle Assessment**

Eskinder DEMISSE, Isabela BUTNAR,  
Maria LLOP, Francesc CASTELLS

**P-047 A Quantitative Analysis of the Effects of Border Tax Adjustments for CO<sub>2</sub> Emissions Trading Schemes in Japan**

Masato YAMAZAKI

**P-048 Exchanging Environmental Data throughout the Supply Chain**

Eric SIMMON, John MESSINA

**P-049 Current Paradigm Shifts within Sustainable Development**

Harald Ernst OTTO

**P-050 The Contribution of Design Management as a Facilitator in Achieving Eco-efficiency within Small Mexican Technology-based Enterprise in New Technological Industries**

Beatriz Itzel CRUZ MEGCHUN, David J HANDS,  
David J DOUGLAS

**P-051 Active Ageing in Urban Environments: Confronting Environmental Constraints and Facilitators Towards and Beyond 2020**

Michael J ANNEAR

**P-052 Sustainable Corporate Communication as a Tool to Bring Forward Sustainable Development via Sustainable Consumption**

Malve Marie FREISCHM, Johanna TELIEPS

**P-053 The Regional Analysis of Resource Productivity in China**

Feng SHI, Hiroki TANIKAWA, Akio ONISHI,  
Tao HUANG, Hidefumi IMURA

**P-054 A Study of Socio-Economic Impacts of a Sustainable Energy Flow System in the Philippines**

Mary Grace Carlos GO, Hiroki TANIKAWA,  
Hiroaki SHIRAKAWA,  
Hidefumi IMURA

## Poster Session

Poster session A (13:30-14:30) ..... Numbers with underline  
 Poster session B (16:50-17:50) ..... Numbers without underline

- P-055** **Environmental Performance Analysis of Product Portfolio**  
 Jan DUSEK, Yoshiro FUKUDA
- P-056** **Relevance Analysis Method for Sustainability Based on Co-Occurrence Relation in Newspaper Articles**  
 Keijiro MASUI, Takashi SONDA
- P-057** **Implementation of Life Cycle Assessment into Process Design as a Mechanism of PDCA Cycle**  
 Yasunori KIKUCHI, Masahiko HIRAO
- P-058** **Development of a Prediction Model of Low-Carbon Technology Implementation Rate Based on Home Owner's Decision-Making Structure**  
 Mitsuru DEGUCHI, Toshiharu IKAGA,  
 Shun KAWAKUBO, Kumi OKUMURA
- P-059** **Decision Support for Environmentally-Conscious Consumption by Interactive Assessment Tool: A Case Study on the Selection of Shopping Bag**  
 Satoshi HATANAKA, Yasunori KIKUCHI,  
 Masahiko HIRAO
- P-060** **Toward Elucidation of the Comprising Factors for Sustainability and Livability in Cities by Questionnaire Analysis**  
 Shun KAWAKUBO, Toshiharu IKAGA
- P-061** **Analysis of Energy Consumption Patterns and Scenarios for Development of Industrial Sectors – Cases of Shanghai City and Jiangsu Province**  
 Keishiro HARA, Michinori UWASU,  
 Haiyan ZHANG, Helmut YABAR
- P-062** **A New Characterization Model for Depletion of Abiotic Resources – The Anthropogenic Stock Extended Abiotic Depletion Potential**  
 Markus BERGER, Laura SCHNEIDER,  
 Matthias FINKBEINER
- P-063** **Multi-Scale Integrated Analysis of Societal and Ecosystem Metabolism (MuSIASEM) Aided with GIS: An Application to Australia, China, India and Japan**  
 Wanxin HOU, Sunuhadi PRABOWO, Jinling FEI,  
 Hiroki TANIKAWA, Shunsuke MANAGI, Minoru SASAKI, Kozo MAYUMI
- P-064** **A Proposal of Environmental Assets Management Method of Infrastructure Provisions: Life Cycle Assessment without Setting Lifetime and Discount Rate**  
 Naoki SHIBAHARA, Hirokazu KATO
- P-065** **Comparison of Social Cost between Brominated Flame Retardant HBCD and Its Alternatives.**  
 Tomoya INOUE, Satoshi MANAGAKI,  
 Shigeki MASUNAGA
- P-066** **A Decision-support System for Consumers to Select Energy Related Home Appliances under User-specific Conditions**  
 Ting LIU, Yasunori KIKUCHI, Masahiko HIRAO
- P-067** **The Improvement of Accounting Treatment of Material Flow Cost Accounting**  
 Mei SUN, Katsuya NAGATA
- P-068** **Environmental and Economical Analysis with the Integration of LCA and MFCA**  
 Tomomi SUETSUGU, Norihiro ITSUBO
- P-069** **Reducing of Zinc in Ferrite Slurries – Goethite Process**  
 Roman MARSALEK, Barbora PRZYBYLKOVA,  
 Rudolf PETER, Antonin KLECKA,  
 Vladimir SPACHMAN
- P-070** **Study on Behavior Modification Effect of Discharge Fee System on Household Solid Waste in Okayama City**  
 Yasuhiro MATSUI, Mitsuru KAI
- P-071** **Characterisation and Modelling of Household Waste Generation Based on Questionnaire Study – Case Study of Iskandar Malaysia**  
 Siti Norbaizura MD. REJAB, Takeshi FUJIWARA,  
 Ho Chin SIONG
- P-072** **LCA Approach to Analyzing Solvent Waste Issues in the Pharmaceutical Industry**  
 Mariano Javier SAVELSKI, Michael RAYMOND,  
 Stewart SLATER
- P-073** **A System Analysis of Bio-ethanol Produced from Cassava and Sugarcane in Northern Thailand**  
 Motoko YAMANARI, Motoko YAMANARI,  
 Kenichi ADACHI, Kiyoshi DOWAKI,  
 Yucho SADAMICHI



## Poster Session

Poster session A (13:30-14:30) ..... Numbers with underline  
Poster session B (16:50-17:50) ..... Numbers without underline

- P-074 Case Study of the Energy Balance and Cost Benefit of Kitchen Waste Treatment in Taiwan**  
Wang-Kun CHEN
- P-075 The Financial and Environmental Costs of Reusable and Single-Use Plastic Anaesthetic Trays**  
Scott Jeremy MCALISTER, Forbes MCGAIN,  
David STORY
- P-076 Mass and Energy Balance Analysis of Sewage Sludge Treatment Processes**  
Yuhi OZAKI, Ryuichi TACHIBANA,  
Koichi FUJIE
- P-077 The Collection and Recycling Systems of Used Mobile Phone in European Countries and Japan**  
Rie MURAKAMI-SUZUKI, Naoko TOJO,  
Panate MANOMAIVIBOOL,  
Atsushi TERAZONO, Shinsuke MURAKAMI
- P-078 A Study of the Household Solid Waste Generation and Characteristic in a North Central Vietnam City – Hue City**  
N. P. THANH, Y. MATSUI, N. T.M. YEN,  
P. K. LIEU, T. N. TUAN
- P-079 Effect of Environmental Load Reduction of Food Waste Recycling System in Household Sector**  
Yingying DOU, Toru MATSUMOTO,  
Yonghai XUE
- P-080 Life Cycle CO<sub>2</sub> Emissions for Local Passenger Transport Modes of Different Passenger Flow Volume**  
Kei ITO, Hirokazu KATO, Naoki SHIBAHARA
- P-081 Assessing Impact of Economic Development on Water Pollution in Thailand Using Dynamic Spatial Econometrics Analysis**  
Saranyupa CHAIPRASITHIKUL,  
Yue MORIIZUMI, Yoko WAKE
- P-082 Life Cycle Assessment Used as Supportive Evidence for the Health Technology Assessment of a Drug: Initial French Experience with a New Packaging of an Iodinated Contrast Agent, Xenetix® in ScanBag®**  
Philippe SCHIESSER, Lionel MORO,  
Patrice AUCLAIR, Françoise MATOU
- P-083 Characterisation Factors for Cooling Water Emissions to Freshwater Bodies**  
Francesca VERONES,  
Marlia MOHD HANAFIAH, Stephan PFISTER,  
Mark HUIJBREGTS, Gregory PELLETIER,  
Annette KOEHLER
- P-084 Public Attitude and Acceptance Level of Low Carbon Power Technology in Japan**  
Hiromi KUBOTA, Kenshi BABA, Hiroki HONDO
- P-085 Agronomic and Environmental Viability of Compost Application in Mediterranean Horticultural Crops**  
Julia MARTÍNEZ-BLANCO, Joan COLÓN,  
Pere MUÑOZ, Assumpció ANTÓN,  
Adriana ARTOLA, Xavier FONT,  
Antoni SÁNCHEZ, Xavier GABARRELL,  
Joan RIERADEVALL
- P-086 Estimation of Comprehensive Environmental Impacts in Metal Mine Sites - Focused on Wastewater Treatment**  
Akihiro TAKAHASHI, Tsuyoshi ADACHI,  
Chiharu TOKORO, Shinsuke MURAKAMI
- P-087 Inventory of Chemicals and Biological Substances (as Alternatives) in the Processes of Industrial and the Small Scale Tanning in Cameroon – Africa**  
Samuel TETSOPGANG, Gilbert KUEPOUO
- P-088 Substance Flow Analysis of Phosphorus Focusing on the Secondary Resources in Japan**  
Jun KAJIYAMA, Kazuyo MATSUBAE,  
Takehito HIRAKI, Tetsuya NAGASAKA
- P-089 An Analysis on the Carbon Economic Effects of Using Wood Residues as Energy and Material**  
Seok-Jin HONG, Yoonsil CHOI, Eun Sil JANG,  
Ji Yong LEE, Tak HUR
- P-090 Inspection and Remediation to Increase Service Life of Wood Poles**  
Louis GASTONGUAY
- P-091 Environmental Efficiency of Copper Mines**  
Naoya MATSUMOTO, Yuzo TAMANISHI,  
Shinsuke MURAKAMI, Jiro YAMATOMI

## Poster Session

Poster session A (13:30-14:30) ..... Numbers with underline  
 Poster session B (16:50-17:50) ..... Numbers without underline

- P-092** **Visualization of Element Distribution by Thermodynamic Analysis on Magnesium and Aluminum Alloy Recycling**  
 Takehito HIRAKI, Kenichi NAKAJIMA,  
 Osamu TAKEDA, Takahiro MIKI,  
 Kazuyo MATSUBAE-YOKOYAMA,  
 Sinichiro NAKAMURA, Tetsuya NAGASAKA
- P-093** **Impact on Environmental Load and Economic Structure from Change of Household Expenditure: A Case of Thailand from 1986 to 2025**  
 Thoedsak CHOMTOHSUWAN,  
 Masaharu NAGASHIMA, Yutaka TONOOKA
- P-094** **Estimation of Steel Stock in Building and Civil Construction by Satellite Image**  
 Feng-Chi HSU, Ichiro DAIGO,  
 Yasunari MATSUNO, Yoshihiro ADACHI
- P-095** **The Simulation of Material Flows/Stocks for Indium, Lead, and Zinc**  
 Tomohiro KOCHI, Shinsuke MURAKAMI,  
 Jiro YAMATOMI, Yuichi KAJIURA
- P-096** **Know the Fitness of Your Building**  
 Ray PITTARD
- P-097** **Reductions in Greenhouse Gas Emissions by Using Wood to Protect Against Soil Liquefaction**  
 Chihiro KAYO, Seiji HASHIMOTO,  
 Atsunori NUMATA, Masanori HAMADA
- P-098** **Estimate of Future Life-Cycle CO<sub>2</sub> Emissions from All Commercial Buildings Based-on Socio-Economic Prediction**  
 Kumi OKUMURA, Toshiharu IKAGA,  
 Shun KAWAKUBO
- P-099** **Greenhouse Gas Reduction by Municipal Solid Waste Utilization Including Waste Biomass**  
 Junya YANO, Shingo DEGUCHI,  
 Takeshi MATSUDA, Yasuhiro HIRAI,  
 Shin-Ichi SAKAI
- P-100** **Scenario Analysis of Sustainable Society Based on Urban-Rural Partnerships in Japan**  
 Kazutoshi TSUDA, Bi Hong LOW,  
 Toyohiko NAKAKUBO, Yusuke KISHITA,  
 Keishiro HARA, Yasushi UMEDA
- P-101** **Estimation of Nitrogen Flow by Material Flow Analysis in Asian Mega-cities – Case of Bangkok City**  
 Yonghai XUE, Toru MATSUMOTO,  
 Yoshitaka ABE
- P-102** **A Study on the Environmentally Sustainable Eco-Design Practice for Complicate Product**  
 Cheul-Kyu LEE, Kun-Mo LEE
- P-103** **Korea Rail Energy and GHG Footprint Assessment Using Input-output Analysis**  
 Phirada PRUITICHAIWIBOON, Cheul-Kyu LEE,  
 Yong-Ki KIM, Kun-Mo LEE
- P-104** **The Life Cycle Analysis of the Commuter Railway Line**  
 Naoki AIHARA, Taro TSUJIMURA
- P-105** **Life Cycle Inventory of "C-ta" EV Concept Lightened by CFRP**  
 Tetsuya SUZUKI
- P-106** **Scenario Analysis on Pulp and Paper Flow for the Design of Paper Recycling System**  
 Naofumi MIYATA, Yasunori KIKUCHI,  
 Masahiko HIRAO
- P-107** **Life Cycle Assessment on the Difference of Environmental Load by Distribution and Sales Process: Case Study of Soft Drink in Container**  
 Ryoko MORIMOTO, Hirokazu KATO,  
 Naoki SHIBAHARA
- P-108** **A Comparative Study on the Regime-Actor Analysis of End-of-Life Vehicles (ELV) Recycling between Japan and China**  
 Yang GAO, Toru MATSUMOTO, He XU
- P-109** **Resource Concerns Associated with the Adoption of Electric Vehicles**  
 Troy R HAWKINS, Laura SCHNEIDER,  
 Matthias FINKBEINER,  
 Anders Hammer STROMMAN
- P-110** **LCA of Energy-efficient Passenger Transport in a Swiss Peri-urban Region**  
 Dominik SANER, Pascal MAGES,  
 Annette KOEHLER, Stefanie HELLWEG



## Poster Session

Poster session A (13:30-14:30) ..... Numbers with underline  
Poster session B (16:50-17:50) ..... Numbers without underline

**P-111 Visual Analysis of LCI Evolution: Approach and Concept**

Harald Ernst OTTO

**P-112 Illustrative Examples of the Effect of New Technologies and Management Strategies on the Carbon Footprint of New Zealand Pastoral Meat Products**

Mark LIEFFERING, Stewart LEDGARD, Mark BOYES, Robert KEMP

**P-113 Visual Analysis of LCI Evolution: Framework and Example**

Harald Ernst OTTO

**P-114 Structural Decomposition Analysis of the Automobile Gasoline Consumption and the Sensitivity Analysis**

Yuriko GOTOH, Shigemi KAGAWA, Yuki KUDOH, Keisuke NANSAI

**P-115 Case Study: Eco-Design of Electronics, Mobile Receipt Printer**

Yu-Mi SHIN, Kun-Mo LEE, Chun-Youl BAEK, Yo-Han CHOI

**P-116 Development of Inventory Database for Water Use for The Application to Water Footprint**

Yuya ONO, Ken HORIGUCHI, Norihiro ITSUBO

**P-117 A Study on Developing a Damage Factor of Diarrhea for Global Warming in LCIA**

Longlong TANG, Norihiro ITSUBO

**P-118 Damage Function on Human Health Caused by Road Transport Noise**

Ryota II, Jun NAKATANI, Kiyoo Hasegawa KURISU, Keisuke HANAOKI

**P-119 Development of Inventory Database for Environmental Analysis (IDEA)**

Kiyotaka TAHARA, Toshio ONOYE, Kensuke KOBAYASHI, Ken YAMAGISHI, Shoichiro TSURUTA, Katsuyuki NAKANO

**P-120 How Can We Construct the Marine Products LCI Data Corresponding to Catch Variability? – Case Study of Common Japanese Conger Caught in Sendai-Bay –**

Kazuhiro WATANABE, Kiyotaka TAHARA

**P-121 For Evaluation of Economic and Environmental Inducing Effect on the Lake New Town Project, Development of Koshigaya-City, Saitama, Japan**

Toshiro OGASAWARA, Yutaka TONOOKA, Jee LI, Hiroki HONDO, Ryouta II

**P-122 Environmental Life Cycle Assessment and Economic Ripple Effects Analysis for Events**

Noriko MATSUNAGA, Norihiro ITSUBO

**P-123 Industrializing Remote Area in Sarawak: Benefits of "Eco-CDM Halal Industrial Park"**

Irfan SUNGKAR, Azhar JAMAL

**P-124 The Balance Between Development and Conservation – Take Ecotourism in Kenting National Park in Taiwan**

Yu Tsun CHANG

**P-125 Life Cycle Environment Impact Assessment of a Golf Tournament**

Hiroshi YAMAGUCHI, Ken HORIGUCHI, Longlong TANG, Masato HIRUMA, Naoya TAKAHASHI, Chieko HATAGUCHI, Norihiro ITSUBO

**P-126 The Art of Sustainable Gardening**

Jules BRUCK, Jon A COX

**P-127 A New Program for Environmental Education Based on Industrial Products from a Lifecycle Point of View**

Shinya MATSUMOTO, Asami NARITA, Hiroki INOUE, Yasutaka NAKAHARA, Eiko NAKAMURA

**P-128 Development of Teaching Materials for Environmental Education Based on Battery Technologies**

Yasutaka NAKAHARA, Asami NARITA, Shinya MATSUMOTO, Eiko NAKAMURA