

## **EcoBalance 2014**

### **Poster Program (Poster Number, Core Period, Presenter, Title)**

*\*Numbers in square brackets represent core periods: [ 1 ] 15:10-16:10, [ 2 ] 16:30-17:30.*

P-001 [ 1 ] : *Martin Eberhard Baitz*

Life cycle based sustainability solutions: How successful companies turn sustainability solutions into company benefit and business value

P-002 [ 2 ] : *Atsushi Inaba*

Guidance to assess avoided emissions of GHGs

P-003 [ 1 ] : *Hsin-Jui Wu*

Life cycle inventory analysis for environmental footprints: Case study on skin-care and cosmetic products

P-004 [ 2 ] : *Hideki Sasaki*

Estimation of the workload of calculating GHG emissions of scope 3

P-005 [ 1 ] : *Hui-Ting Tang*

An adaptive implementation framework for constructing a green and livable environment

P-006 [ 2 ] : *Tomohiro Tasaki*

Application of life cycle assessment and economic rationality: A cost survey

P-007 [ 1 ] : *Atsushi Inaba*

SCOPE3 of Kogakuin University

P-008 [ 2 ] : *Liang Dong*

Life-cycle co-benefit of industrial and regional symbiosis: Environmental input-output analysis on typical resource dependent city in China

P-009 [ 1 ] : *Leighton K. Chong*

Symbiosis of OTEC deep water upwelling & ocean aquaculture

P-010 [ 2 ] : *Yuri Hirako*

Projection of demand and supply change of first generation biomass

P-011 [ 1 ] : *Chunyoul Baek*

Decision supporting tool for sustainable dairy cow system

P-012 [ 2 ] : *Junya Yano*

Domestic consumption and household stock storage media in Japan

P-013 [ 1 ] : *Jun-Yi Chiang*

Eco-efficiency assessment of ICT product systems: An example of set top box

P-014 [ 2 ] : *Peiji Jiang Zhao*

A visualization system for carbon footprint of products on mobile devices

P-015 [ 1 ] : *Joaquina Niembro-García*

Environmental potential benefits and risks of electronic invoicing systems and their implications:  
Mexican service company case study

P-016 [ 2 ] : *Yusuke Kishita*

Forecasting electricity consumption of the Japanese information and communications sector toward green  
of ICT

P-017 [ 1 ] : *Johannes Gantner*

Testing the FineChem tool

P-018 [ 2 ] : *Hajime Eguchi*

A metric for system resilience based on the skills and knowledge of production plant personnel in the  
chemical industry

P-019 [ 1 ] : *Pomthong Malakul Na Ayudhaya*

Life cycle assessment of PVC products based on material flow analysis (MFA) in Thailand

P-020 [ 2 ] : *Jeremy Faludi*

Sustainability of 3D printing vs. machining: Do machine type and size matter?

P-021 [ 1 ] : *Ryota Ii*

Life cycle-based exergy analysis and its application to Japanese case

P-022 [ 2 ] : *Qian Zhang*

Compilation of embodied CO<sub>2</sub> emission inventory using China's input-output tables: Implication for  
environmental public utilities

P-023 [ 1 ] : *Bruno De Benedetti*

Integration of material performance index for a comprehensive change-oriented LCA: The biopolymer  
case

P-024 [ 2 ] : *Atsushi Inaba*

Environmental profile of stonepaper

P-025 [ 1 ] : *Sungjoo Lee*

An environmental assessment case study of Rinnai Korea steam-oven product throughout developing the  
eco-design internal system

P-026 [ 2 ] : *Yasuyoshi Taruta*

LCA for environmental policy in case of Japanese local governments

P-027 [ 1 ] : *Zhiwei Liang*

Biodegradability and environmental migration of PDMS polymers in an anaerobic sequencing batch  
reactor

P-028 [ 2 ] : *Singh Intrachotoo*

Eco-design of tableware from palm fiber bio-composite

P-029 [ 1 ] : *Stefan Pauliuk*

Critical material footprint of household consumption

P-030 [ 1 ] : *Guido Sonnemann*

Life cycle assessment (LCA) of the supercritical production of barium titanate nanomaterials

P-031 [ 1 ] : *Guido Sonnemann*

Integration of geopolitical related criticality assessment for resources into the life cycle assessment framework

P-032 [ 2 ] : *Ali Kharrazi*

Exploring potentials of a data-intensive approach for sustainability quantification

P-033 [ 1 ] : *Yusuke Kishita*

Toward sustainable energy business using woody biomass in rural communities

P-034 [ 2 ] : *Daisuke Nishijima*

Combining product lifetime distribution analysis with multi-regional waste input-output analysis: A case study of automobiles in Japanese prefectures

P-035 [ 1 ] : *Wen-Chi Yang*

Urban metabolism, industrial structure and city sustainability based on data envelopment analysis: A case study of Taiwan's major cities

P-036 [ 2 ] : *Tatsuhiko Kawamoto*

System dynamics model for sustainability assessment of mineral resource consumption considering both environmental and resource constraints

P-037 [ 1 ] : *Yuto Ohtsuka*

Global supply chain analysis for sustainable utilization of nickel

P-038 [ 2 ] : *Yasunori Iwatsuki*

Mining impact on the changes in land use measured by satellite images analysis

P-039 [ 1 ] : *Kazutoshi Tsuda*

Potential self supply of local resources towards regional sustainability: Case study of Shinjo Village in Okayama Prefecture, Japan

P-040 [ 2 ] : *Hui-Ting Tang*

Applying TRIZ and concept mapping to green design: An example of green take-away packaging

P-041 [ 1 ] : *Keisuke Yoshida*

Anthropogenic earth movement analysis based on geomorphological change by digital elevation model

P-042 [ 2 ] : *Mei-Chiun Chou*

A review of methodology for critical materials evaluation

P-043 [ 2 ] : *Bernhard Steubing*

Modeling climate effects of biogenic carbon flows from forests and wood products at the national level

P-044 [ 2 ] : *Bernhard Steubing*

Material flow analysis of the Swiss waste management system

P-045 [ 1 ] : *Kenichi Nakashima*

Metrics for performance measurement of advanced repair-to-order, disassembly-to-order and refurbishment-to-order

P-046 [ 2 ] : *Sangeeta Vinod Sharma*

The role of socio-economic factors in household solid waste management in Mumbai, India

P-047 [ 1 ] : *Thang Ngoc To*

An estimation of ship waste quantities at port: A case study in Haiphong, Vietnam

P-048 [ 2 ] : *Richao Cong*

Optimal improvement of waste plastics recycling system in Tianjin based on environmental evaluation and GIS

P-049 [ 1 ] : *Naoki Yoshikawa*

Life cycle assessment of reuse system for surgical gowns

P-050 [ 2 ] : *Saravane Singtong*

Bulk material flow analysis of MSW management in Nongkaem transfer station region of Bangkok

P-051 [ 1 ] : *Chihiro Murayama*

Analysis of contamination of impurities in steel recycling

P-052 [ 2 ] : *Keijiro Okuoka*

Evaluation of the recyclability of concrete rubble using total material requirement index

P-053 [ 1 ] : *Yunlong Wang*

Study on methane oxidation activity and methanotrophic bacteria community composition of *Festuca ovina* rhizosphere in a simulated landfill bio-cover soil

P-054 [ 2 ] : *Yuki Yamamori*

Matching reused products with users considering their satisfaction

P-055 [ 1 ] : *Rajeev Kumar Singh*

Analysis of benefits of introducing integrated waste management approach in developing countries: Case study in Kathmandu City

P-056 [ 2 ] : *Wen-Chi Yang*

A system dynamic assessment of municipal solid waste recycling and its contribution to sustainable development

P-057 [ 1 ] : *Jie Yang*

Life cycle inventory analysis of biogas utilization from sewage treatment plants: A case study on Dihua Sewage Treatment Plants

P-058 [ 2 ] : *Chih-Ku Chen*

Review of excessive packaging restriction implementation in Taiwan

P-059 [ 1 ] : *Trang Thi Thu Do*

Estimation of operational efficiency of municipal solid waste collection alternatives by LCA/ LCC methodologies in Danang City, Vietnam

P-060 [ 2 ] : *Hiroshi Yamaguchi*

International interdependencies analysis using detailed Asian international input-output table

P-061 [ 1 ] : *Tomoko Fuchigami*

Study on framework of life cycle sustainability assessment and social life cycle assessment: As a subject of biorefinery

P-062 [ 2 ] : *Yuya Ono*

Global scale fate factor of nitrogen for aquatic eutrophication using water circulation model

P-063 [ 1 ] : *Yuki Kudoh*

Methodology to assess sustainability of biomass utilisation in East Asia

P-064 [ 2 ] : *Kuan Jay Bartel*

New version of simple LCA software including a comprehensive inventory database (IDEA)

P-065 [ 1 ] : *Takahiro Nakashima*

Land use, an important midpoint category indicator in agriculture: How should we deal with it?

P-066 [ 2 ] : *Ryoko Morimoto*

Setting method of the evaluation boundary from the viewpoint of uncertainty management in LCA for transport infrastructure provision

P-067 [ 1 ] : *Hirokazu Kato*

Uncertainty analysis for infrastructure LCA

P-068 [ 2 ] : *Ryosuke Yokoi*

Calculation and comparison of weighting factors based on different approaches in LCIA

P-069 [ 1 ] : *Longlong Tang*

Spatial variation of health damage factors for PM<sub>2.5</sub> on a continent level

P-070 [ 2 ] : *Kayoko Shironitta*

The role of world structural changes on CO<sub>2</sub> emissions

P-071 [ 1 ] : *Hatsuna Tadaka*

Pedagogical training for environmental education based on life cycle thinking for engineers

P-072 [ 2 ] : *Masatsugu Kitamura*

Eliminating mottainai product features for our sustainable society

P-073 [ 1 ] : *Shogo Eguchi*

Environmental performance of biodiesel productions using waste cooking oil

P-074 [ 1 ] : *Kotaro Kawajiri*

Life cycle CO<sub>2</sub> emission of wind energy at optimum locations in the world

P-075 [ 1 ] : *Burcin Atilgan*

Life cycle environmental impacts of electricity from renewable sources in Turkey

P-076 [ 2 ] : *Tomohiro Okadera*

Water-based life cycle assessment of power generation and supply in Thailand

P-077 [ 1 ] : *Harald Ernst Otto*

The concept of efficiency in the context of sustainable energy consumption: Theoretical considerations and legacy

P-078 [ 2 ] : *Pomthong Malakul Na Ayudhaya*

Life cycle energy and environmental assessment of the production and utilization of compressed biogas (CBG) in Thailand

P-079 [ 1 ] : *Qian Zhou*

Analysis of the socio-economic and environmental benefits of introducing technology innovation and regulations in the energy sector in China: A regional case study

P-080 [ 2 ] : *Ya Chen Tasi*

Externality assessment of NIMBY facilities incorporating distance effects: A case study on the construction of the Longmen Nuclear Power Plant

P-081 [ 1 ] : *Harald Ernst Otto*

The concept of efficiency in the context of sustainable energy consumption: Current practice and shortcomings

P-082 [ 2 ] : *Yusuke Kishita*

Evaluating the greenhouse gas emissions and the life cycle cost of thermoelectric generators for passenger automobiles

P-083 [ 1 ] : *Yusuke Jinno*

A proposal of the eco-efficiency of the fuel cell co-generation system of "Ene-Farm"; in consideration of LCCO<sub>2</sub> emission and metal resources depletion

P-084 [ 2 ] : *Takahiro Orikasa*

Cost, CO<sub>2</sub> emission and energy consumption of bioethanol production from a lignocellulosic energy crop, *Erianthus sp.* by SRB-CaCCO process

P-085 [ 1 ] : *Mauro Pereira Hill*

Comparative analysis of energy use and CO<sub>2</sub> emissions between life cycles of compressed natural gas and thermal energy gas for final use in light vehicles

P-086 [ 2 ] : *Daisuke Fukuhara*

Evaluation of power interchange potential and supply-demand balance of distributed generation in Kinki

P-087 [ 1 ] : *Shunichi Hienuki*

A framework to assess impacts of grid mix changes in Japan using input-output tables

P-088 [ 2 ] : *Yukari Fuchigami*

Analysis of environmental loads and benefits of a bio-coke production factory: A case study in Osaka

P-089 [ 1 ] : *Ayu Washizu*

Input-output analysis of introducing smart grid systems in Japan

P-090 [ 2 ] : *Aya Heiho*

Benefits of biogas projects from local and global perspectives

P-091 [ 1 ] : *Jae-Young Lee*

Carbon footprint labelling certification of railway operating service in Korea

P-092 [ 2 ] : *Markus Weißenberger*

A review of the life cycle assessment of nearly zero-energy residential buildings

P-093 [ 1 ] : *An Yu Lin*

An aggregative assessment of environmental impacts on reservoir catchments imposed by public construction projects: A case study on Feitsui Reservoir

P-094 [ 2 ] : *Unchalee Suwanmanee*

Environmental impacts of portland cement manufacturing and developed process with alternative technologies in Thailand

P-095 [ 1 ] : *Michael Jäger*

Eco-benefit analysis of multifunctional building products

P-096 [ 2 ] : *Johannes Gantner*

Development of a combined LCA and LCC tool for refurbishment measures of districts

P-097 [ 1 ] : *Whi-Lim Son*

A study on environmental impact of Korean wooden house using life cycle assessment

P-098 [ 2 ] : *Kei Ito*

Macro analysis of life cycle CO<sub>2</sub> from urban passenger transport systems in Asian developing countries

P-099 [ 1 ] : *Naoki Shibahara*

Estimation method of the change in life cycle CO<sub>2</sub> from mass transit system applying micro-scopic traffic flow simulation

P-100 [ 2 ] : *Kotaro Kawajiri*

Net CO<sub>2</sub> emissions by the change of consumption in consequential LCA

P-101 [ 1 ] : *Koji Takase*

Modeling consumer's choice and its GHG implication under simultaneous consideration of available income and time

P-102 [ 2 ] : *Tomohiko Ihara*

Determinants of environment-conscious behavior in eating habits

P-103 [ 1 ] : *Akai Kenju*

Product differentiation and eco-behavior by using carbon footprint

P-104 [ 2 ] : *Chika Ishida*

Analysis of the effects of low-carbon technologies and individual activity schedule on carbon dioxide emissions

P-105 [ 1 ] : *Katsumasa Tanaka*

Emission metrics for climate policies and their implications to life cycle assessment

P-106 [ 2 ] : *Tomohiro Tabata*

Evaluating the relationship between agricultural workers and agricultural residues production: A case study in the Hyogo Prefecture

P-107 [ 1 ] : *Kento Tamura*

Land constraints associated with future food and biofuel demands

P-108 [ 2 ] : *Guen-Young Lee*

Web-based system development for GHG emission from livestock sector

P-109 [ 1 ] : *Elmer G. Bautista*

Greenhouse gas emission of rice production system in the Philippines based upon life cycle inventory analysis

P-110 [ 2 ] : *Takashi Oi*

A proposal of the CF index of rice in consideration of consumer's health condition



P-111 [ 1 ] : *Sho Ushikubo*

LC-CO<sub>2</sub> analysis on a fresh tomato in consideration of quality degradation

P-112 [ 2 ] : *Katsushi Yokoyama*

Influence of management practices on life cycle greenhouse gas emissions from rice production in Yamagata Prefecture, Japan

P-113 [ 1 ] : *Motoko Shimura*

Potential reductions in life-cycle greenhouse gas emissions from paddy rice production: Assessing the influence of puddling, transplanting density, and irrigation depth

P-114 [ 2 ] : *Kenji Koido*

Life cycle CO<sub>2</sub> emission of konjac production via an overwintering methodology in Gunma, Japan

P-115 [ 1 ] : *Rattanawan Mungkung*

Low-carbon footprint Thai pork sausage by biogas system application at pig farms

P-116 [ 2 ] : *Hidetsugu Morimoto*

Life cycle cost analysis of willow production on small-scale field

P-117 [ 1 ] : *Kazuhiro Watanabe*

Life cycle inventory analysis for small scale trawl fishery in Sendai Bay

P-118 [ 2 ] : *Masayuki Sagisaka*

Improving the environmental efficiency of woody biomass utilization: Focusing on the manufacturing of high value-added products in Maniwa, Japan

P-119 [ 1 ] : *Tatsuo Hishinuma*

Potential for energy saving of dairy farming system dependent upon land utilization

P-120 [ 2 ] : *Takashi Yamamoto*

Substance flow analysis on agricultural nutrients focusing on nitrogen and phosphorus

P-121 [ 1 ] : *Latifah Abdul Ghani*

Combining duo technique of MFA and GIS for evaluating nitrogen flux in the agricultural system: Case study in Kuala Terengganu region

P-122 [ 2 ] : *Tao Wang*

Water security and socio-economic metabolism in China: Toward an integrated assessment

P-123 [ 1 ] : *Jahau Lewis Chen*

Water footprint assessment of machine tool

P-124 [ 2 ] : *Susumu Uchida*

Evaluation of water use in paddy-rice production on the basis of differential water footprint

P-125 [ 1 ] : *Soya Iida*

Development of water footprint inventory database of Asian countries