

Program of International Symposium on C and N Dynamics by Land Use and Management Changes in East and Southeast Asian Countries (ISCN-LUMC in Tsuruoka, Sep. 10-12, 2018)



**International Symposium on C and N Dynamics  
by Land Use and Management Changes  
in East and Southeast Asian Countries**

Main Topics:

- ✓ Carbon sequestration?
- ✓ Greenhouse gases emission?
- ✓ Plants production?
- ✓ Soil fertility?
- ✓ Effect of global warming?

Invited Speakers:

Prof. Ryusuke HATANO (Hokkaido U, Japan)  
Prof. Kazuyuki YAGI (KMUTT, Thailand)  
Prof. Woo-Jung CHOI (CNU, Korea)  
Prof. Ronggui HU (HZAU, China)  
Dr. Benito Heru PURWANTO (UGM, Indonesia)  
Dr. Kazunobu TORIYAMA (JIRCAS, Japan)

Date and Venue:  
September 10-12, 2018  
YU campus in Tsuruoka, Yamagata, Japan

Organizer & Contact:  
Prof. Weiguo CHENG (Yamagata University, Japan)  
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Sponsor:

 Yamagata University  UGAS, Iwate University

10-Sep		
Time	Session / Presentation	Presenter
8:15	Start registration	
Opening Ceremony		
9:00-9:20	Opening welcome message from Vice President of Yamagata U, Prof. Hironori YASUDA	
Keynote Lectures (1) Moderator: W. Cheng		
9:20-10:00	I Effect of land-use change between perennial grassland and annual crop on greenhouse gas dynamics	Prof. Ryusuke HATANO <i>Hokkaido U, Japan</i>
10:00-10:40	II Fu-do and Food in Monsoon Asia: A Brief Agro-Environmental Outlook	Prof. Kazuyuki YAGI <i>KMUTT, Thailand</i>
10:40-10:50	Coffee/Tea Break	
Oral Presentation (1) Moderator: R. Hatano and K. Yagi		
10:50-11:10	1 Cultivation of Protein-Rich Forage Rice with Continuous Irrigation of Treated Municipal Wastewater	Prof. Toru WATANABE <i>Yamagata U, Japan</i>
10:10-11:30	2 Soil Carbon and Nitrogen under influence of phosphorus application of <i>Acacia mangium</i> plantation in Indonesia	Dr. Makruf NURUDIN <i>UGM, Indonesia</i>
11:30-11:50	3 Evaluation of the nitrogen budget in a field with paddy–upland rotation on gray lowland soil in Akita, Japan	Dr. Fumiaki TAKAKAI <i>Akita Pref. U, Japan</i>
11:50-12:10	4 Changes in soil organic matter dynamics after the conversion of rice paddies to upland fields in Shonai area, northeastern Japan	Dr. Julien GUIGUE <i>NARO-NIAES, Japan</i>
Lunch (12:10-13:40) in Suzune ( <a href="http://suzune-tsuruoka.com/about.html">http://suzune-tsuruoka.com/about.html</a> )		
Keynote Lectures (2) Moderator: W. Cheng		
13:40:00-14:20	III Soil organic carbon stabilization and loss of volcanic ash soils under different land uses	Prof. Woo-Jung CHOI <i>CNU, Korea</i>
14:20-15:00	IV Converted Rice Paddy to Vegetable Cultivation Reshaped the Carbon Budget	Prof. Ronggui HU <i>HZAU, China</i>
15:00-15:10	Coffee/Tea Break	
Oral Presentation (2) Moderator: W.J. Choi and R. Hu		
15:10-15:30	5 Dissolved organic nitrogen in paddy soils with long-term fertilization	Prof. Shihe XING <i>FAFU, China</i>
15:30-15:50	6 Synergistic effects of green manure and rice straw applications on soil fertility and ecological function in paddy fields: a case study of Anhui Province, China	Prof. Ji WU <i>AAAS, China</i>
15:50-16:10	7 Is shallow autumn tillage an effective mitigation strategy of CH <sub>4</sub> emission from rice paddy fields? A case study in a well-drained Andisol paddy field in Morioka, Japan	Dr. Miyuki NAKAJIMA <i>NARO-TARC, Japan</i>
16:10-16:30	8 Positive responses of SOC and TN contents and their mineralization to 10-year soil warming in a single rice paddy soil	Dr. Shuirong TANG <i>Hainan U, China</i>
Poster Presentation (16:30-18:30)		
Gathering party (18:30-21:30) in Tsuruoka Campus		
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<b>11-Sep</b>		
<b>Time</b>	<b>Session / Presentation</b>	<b>Presenter</b>
8:15	<i>Continue registration</i>	
<b>Keynote Lectures (3) Moderator: W. Cheng</b>		
8:30-9:10	V Effect of land use and soil management changes on the dynamic of soil carbon and nitrogen in Indonesia	Dr. Benito Heru PURWANTO <i>UGM, Indonesia</i>
9:10-9:50	VI Incorporation of fallow weeds contributes to accumulation of soil N and its supply to rice plants under organic farming	Dr. Kazunobu TORIYAMA <i>JIRCAS, Japan</i>
9:50-10:00	<i>Coffee/Tea Break</i>	
<b>Oral Presentation (3) Moderator: B.H. Purwanto and K. Toriyama</b>		
10:00-10:20	9 Soil properties and nitrogen uptake on the changes of conventional to sustainable organic paddy soil	Dr. Sri Nuryani Hidayah UTAMI <i>UGM, Indonesia</i>
10:20-10:40	10 Improvement of NPK absorption and organic rice production by applying cow manure and planting system at the organic paddy field at Imogiri, Yogyakarta, Indonesia	Dr. Eko HANUDIN <i>UGM, Indonesia</i>
10:40-11:00	11 Effect of water saving irrigation practices on fertilizer nitrogen dynamics in paddy soil	Dr. Yuka SASAKI <i>Yamagata U, Japan</i>
11:00-11:20	12 Changes in C and N content and their $\delta^{13}\text{C}$ from bulk soil and its water extraction pools: a research from long-term experiment on paddy rice	Dr. Toan NGUYEN-SY <i>Yamagata U, Japan</i>
11:20-11:40	13 Introduce LUC&M in Shonai area and excursion points for this symposium	Prof. Weiguo Cheng <i>Yamagata U, Japan</i>
<b>Lunch (12:00-13:20) in Organic farmer restaurant Naa</b>		
<a href="http://www.e-naa.com/">http://www.e-naa.com/</a>		
<b>Enjoying the traditional Japanese dancing by maiko in Somaro, Sakata (14:00-15:00)</b>		
<a href="https://www.somaro.net/englishhome">https://www.somaro.net/englishhome</a>		
<b>Visiting the oldest LUC point from sand dune to black pine forest in Shonai (15:00-15:30)</b>		
<a href="http://npo-kuromatsu.jp/">http://npo-kuromatsu.jp/</a>		
<b>Visiting the Sankyosokou and Shonai Rice History Museum (15:40-16:10)</b>		
<a href="http://shonai.zennoh-yamagata.or.jp/gallery/index.html">http://shonai.zennoh-yamagata.or.jp/gallery/index.html</a>		
<b>Visiting Sake Brewing of hatsumago (16:20-16:40), Award of Sake Brewer of 2018 by IWC</b>		
<a href="http://www.hatsumago.co.jp/english.pdf">http://www.hatsumago.co.jp/english.pdf</a>		
<b>Visiting the LUC point from sand dune to black pine forest in Japanese Sea site (16:50-17:20)</b>		
<a href="http://npo-kuromatsu.jp/">http://npo-kuromatsu.jp/</a>		
<b>Visiting the LUC point from sand dune to rice paddy (17:40-17:50)</b>		
<b>Arrive Yunohama hot spring and checking in Takeya hotel (18:00)</b>		
<b>Cultural exchange party in Yonohama HS (19:30-21:00)</b>		
<a href="http://takeyahotel.co.jp/">http://takeyahotel.co.jp/</a>		

<b>12-Sep</b>		
<b>Time and Activities</b>		
<b>Breakfast 1 (7:00~) for guests leaving from Shonai Airport for Tokyo on 8:40</b>		
Car leaving hotel on 7:40		
<b>Breakfast 2 (7:30~) for other guests</b>		
Bus leaving hotel on 8:40		
<b>Kamo Aquarium (9:00-10:30)</b>		
<a href="https://kamo-kurage.jp/">https://kamo-kurage.jp/</a>		
Bus can be stopped on Tsuruoka station and bus stop of 庄内観光物産館 for guests leaving Tsuruoka on noon time		
<b>Haguro-san Mountain (11:00-14:00)</b>		
<a href="http://www.dewasanzan.jp/">http://www.dewasanzan.jp/</a>		
<b>Lunch (12:00-13:00) in Hagurosan vegetarian cuisine</b>		
<a href="http://www.dewasanzan.jp/">http://www.dewasanzan.jp/</a>		
国宝羽黒山五重塔内部特別公開中 <a href="http://www.dewasanzan.jp/publics/index/143/">http://www.dewasanzan.jp/publics/index/143/</a>		
It is possible to climb 2446 stone steps to the top of Haguro-san.		
<b>Visiting the LUC point from forest to grasslands for summer cattle grazing (15:00-15:30)</b>		
<a href="http://haguro-hitsuji.com/">http://haguro-hitsuji.com/</a>		
<b>Visiting the LUC&amp;M points from former rice paddies in Kumagai Shrine (16:00-16:30)</b>		
<a href="http://www.town.shonai.lg.jp/kurashi/bunka/bunkazai/kamehouse/kumagai.html">http://www.town.shonai.lg.jp/kurashi/bunka/bunkazai/kamehouse/kumagai.html</a>		
<b>Arrive Tsuruoka station and checking in the hotels nearby Tsuruoka station (17:30)</b>		
<b>Farewell party in Farinamore nearby Tsuruoka station (19:00~21:00)</b>		
<a href="http://www.alchecciano.com/farinamore.html">(http://www.alchecciano.com/farinamore.html)</a>		
<b>13-Sep</b>		
<b>Time and Activities</b>		
<b>Car or limousine bus for guests leaving from Shonai Airport for Tokyo on 8:40</b>		
Car or bus leaving hotel or station on 7:10		
<b>Visiting dean of Faculty of Agriculture, YU (9:00~9:30)</b>		
Car leaving hotel on 8:30		
<b>Visiting Mushroom cultivation mill in Yuza town and discuss the waste management (10:30~12:00)</b>		
Bus leaving campus on 9:40		
<b>Visiting Michinoeki Chikai Furatto for lunch (12:10~13:30)</b>		
<b>Visiting some place around Chokai mountain (13:30-15:30)</b>		
<b>Coming back downtown area and looking around Tsuruoka Park (16:00~17:00)</b>		
Shidokan		
<b>Dinner in Kappa sushi (18:00~19:00), then back to Hotel on 19:30</b>		

## Poster presentations:

No.	Presenter	From	Title
P1	Prof. MAO, Yanling	FAFU	The effects of biochar from spent mushroom substrate on the properties red soil
P2	Dr. YANG, Wenhao	FAFU	Characterization of chemical–physical properties of biochars driven from different spent mushroom substrates
P3	YUAN, Ping	FAFU; YU	Quantifying organic carbon dynamic changes in Tai-Lake paddy soils of China based on high-resolution soil database
P4	HAN, Shang	AAAS	Effects of topsoil increase and decrease on yield, nutrient uptake and soil nutrient status in lime concretion black soil of the North China Plain
P5	WANG, Hui	AAAS	Effects of nitrogen managements with incorporation of Chinese Milk Vetch on the yield of double cropping rice and fertilizer use efficiency
P6	YANG, Hye-In	CNU	Temperature sensitivity of organic matter decomposition of volcanic ash soils: a comparison with non-volcanic ash soils
P7	PARK, Se-In	CNU	Pollutant Runoff Reduction Efficiency Differs with Land Management Practices: Surface Cover, Vegetative Filter Strip and Vegetated Ridge
P8	Dr. NUGROHO, Bayu DA	UGM	Effect of intermittent irrigation following the System of Rice Intensification (SRI) on rice yield in a farmer's paddy fields in Indonesia
P9	WIBOWO, Wisnu Aji	UGM; YU	Different soil/water ratios affected the amounts of hot water and water extracted organic matter in rice paddy
P10	WIBOWO, Wisnu Aji	UGM; YU	The long-term effect of large amount of manure compost application on C and N dynamics in single rice paddy soil
P11	Prof. MORI, Shigeta	YU	Universal scaling of roots/shoot respiratory partitioning in terrestrial plants
P12	WANG, Mofei	UGAS	Convergence of shoot respiratory scaling among bamboo and trees
P13	KUROSAWA, Yoko	YU	Initial burst in root development with energy saving in whole <i>Fagus crenata</i> seedlings
P14	ZHANG, Qiqin	UGAS	Water use pattern in different tree species and $\delta^{18}\text{O}$ variability in the water cycle in heavy rain area
P15	BRENDT, Alexander C.	UGAS	Dependency of Degree Day Factor and Snow density on Snowmelt in YU Enshurin
P16	PHUNG, Duc Luc	UGAS	High Yield and Nutritional Quality of A Forage Rice ( <i>Oryza sativa</i> ) Achieved by Continuous Irrigation of Treated Municipal Wastewater without Supplementation of Synthetic Fertilizers
P17	TRAN, Danh Lanh	YU	Pilot-Scale Experiment of Treated Municipal Wastewater Irrigation to Achieve High Yield and Nutritional Quality of Forage Rice
P18	NGUYEN, Thanh Tung	UGAS	Investigation on the nutrients balance of paddy fields after long-time application of cow dung compost and rice straw
P19	DUARTE, Hideraldo S.	YU	Effect of N application methods and rice straw management on rice productivity and soil fertility in paddy field
P20	BIMANTARA, Putu Oki	YU	Studies on carbon and nitrogen dynamics affected by land use changes from originally rice paddy in Northeast Japan
P21	KIMANI, Samuel Munyaka	YU	Influence of phosphorous and flooding water depth on Azolla growth and its significance in mitigating evapotranspiration
P22	KIMANI, Samuel Munyaka	YU	Influence of Azolla incorporation and dual cropping on $\text{CH}_4$ and $\text{N}_2\text{O}$ emissions from flooded rice paddy
P23	KAUTSAR, Valensi	YU	Organic rice farming increasing soil carbon stocks and nitrogen mineralization potentials in Japanese Andosols
P24	KAUTSAR, Valensi	YU	Long-term organic rice farming affected the air-drying effect on soil C decomposition and N mineralization in Andisol paddies
P25	KAUTSAR, Valensi	YU	Carbon decomposition and nitrogen mineralization of fallow grasses in paddy soil under long-term organic farming
P26	NGUYEN-SY, Toan	UGAS	Changes in soil C & N from 3 kinds of land use changes by modelled lysimeters experiment with or without plants
P27	WU, Xian	HZAU, YU	Effects of converting rice paddy to wetland on the soil organic carbon dynamic in Yamagata, northeast Japan by PARAFAC analysis
P28	Cheng lab	YU	Changes in soil carbon and nitrogen contents, and their anaerobic decomposition potentials after rice paddy abandoned to wetland
P29	Cheng lab	YU	Carbon storages in variation ages of black pines coastal forests in Shonai Sand Dunes
P30	Cheng lab	YU	Determining the amounts of organic carbon from root exudates among 8 kinds of rice cultivars by hydroponics at pH 5.2