# Japan-ASEAN Science, Technology and Innovation Platform (JASTIP) Report of JASTIP-Net Activity

Date: 2017 / 11 / 29

	Affiliated Organization			
1. Research partner	Name	Takuo Nakayama		
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	Position	Assistant Professor		
	Address	Yoshida-Honmachi, Sakyo-ku, Kyoto 606-8501 Japan		
		Headquarters		
		<ul> <li>To Develop Operational Linkages and Human Resources among Academic Sector, Government Agencies, and Private Sectors in ASEAN countries and Japan.</li> <li>To Introduce Various STI Collaborations for Effectively and Efficiently into the Society based on the three joint laboratories' activities.</li> </ul>		
		Energy & Environment Joint Lab		
2. Collaborative	Collaborative	Studies on Rural/Community Renewable Energy.		
research	research theme	<ul> <li>Development of Renewable Energy Technology adapted to the ASEAN region.</li> </ul>		
		□ Studies on Energy Policy/Security in the ASEAN region.		
		Bioresources & Biodiversity Lab		
		□ Studies on Biodiversity in the ASEAN Region Contributing to the		

		<ul> <li>Improvement of Identification, Collection and/or Information.</li> <li>Sustainable Utilization of Bioresources for Biorefinery, Bioremediation, Wood Construction, Food or Medicine.</li> <li>Plant Improvement for Agroforestry Systems and Carbon Sequestration Contributing to the Mitigation of and/or Adaptation to Climate Change.</li> </ul>	
		Disaster Prevention Joint Lab	
		<ul> <li>Innovative Ideas on Disaster Prevention, Mitigation and Recovery Technologies and Policies Peculiar to Each ASEAN Country.</li> <li>How to Cope with Trans-Boundary Disasters in the ASEAN Region Such as Tsunami, Flood, Drought and Haze.</li> <li>Understanding and Quantitative Evaluation of Disaster Risks Peculiar to ASEAN Countries.</li> </ul>	
	Collaborative research title	"Local Energy Governance" and Community Renewable Energy (CRE) in Vietnam	
	Host core-researcher	Prof. Keiichi Ishihara	

### 3. Members

Name	Ialnazov Dimiter Savov				
Affiliation	Shishu-kan, Kyoto University	Position	Professor		
Name	Toru Morotomi				
Affiliation	Graduate School of Economics, Kyoto University	Position	Professor		
Name	NGUYEN THI HOANG LIEN				
Affiliation	VNU University of Science, Vietnam National University, Hanoi	Position	Lecturer		
Name	Yao Lixia				
Affiliation	Energy Studies Institute, National University of Singapore	Position	Fellow		
Name	Ryo Takeuchi				
Affiliation	Graduate School of Economics, Kyoto University	Position	Ph.D. Student		
Name	Kazuki Hao				
Affiliation	Shishu-kan, Kyoto University	Position	Ph.D. Student		

## 4. Report of activities

Please describe 1) research activities and major findings and 2) their academic and social implications toward achieving the SDGs within 2 pages. You can include tables, figures and photos if necessary.

We purposed to implement the "Local Energy Governance" (LEG) concept as a way to achieve

sustainable development at the local community level. In particular, various actors in the local community cooperate with each other to use renewable energy sources, leading to better living standards of the community members.

On 28<sup>th</sup> – 29<sup>th</sup> July 2017, we held International workshop named "Community Renewable Energy in Vietnam, Thailand and Japan" at Can Tho in Veitnam. This workshop aims to disseminate and share knowledge on community renewable energy implementation cases in Vietnam, Thailand and Japan. There were 27 people from Vietnam, Thailand and Japan who are academics, local authorities, representatives of Vietnamese communities and NGO participated the workshop. This Agenda is indicated as Table 1.

The workshop on 28<sup>th</sup> Aug 17, started by having opening remarks from Prof. Nguyen Huu Chiem, College of Environment & Natural Resources, Can Tho University, followed by Prof. Keiichi N. Ishihara, Graduate school of energy science, Kyoto University. Then Prof.Nguyen Huu cheim introduced the participants from Vietnam and Prof. Keiichi N. Ishihara introduced the participants from Japan and Thailand.

On next day, we held Field study trip to Tan Phu Thanh and My Khanh Villages, Phong Dien District, Can Tho City. The participants visited small scale biogas digester in the household of villager member of Tan Phu Thanh and My Khanh Villages. The raw material of the biogas digester of both villages are water hyacinth mixed with pig dung. Currently, the biogas is used for household cooking and still has a lot of excess biogas from each household. In the near future, they have a plan to connect the independent biogas unit in order to utilize the excess gas for community activities.

Through this international workshop, to achieve SDGs, we found that the most difficulty for Vietnamese to establish CRE project is cooperative. The participants have clear idea about CRE models from Japan and Thailand. The main principle of CRE is to encourage community members to work together and share the benefits. However, Vietnamese has a bad experience on communism system. Thus, when the word of "Community" is used which made them feel unclear of the benefit sharing from cooperative project. This is the major barrier of establishing CRE in Vietnam. Therefore, the clear benefit sharing of CRE project have to be defined.

Time	Activities	Persons in charge		
12:30 - 13:00	Registration	СТИ		
13:00 - 13:10	Opening remarks	Prof. Nguyen Huu Chiem and Prof. Keiichi N. Ishihara		
13:10 - 13:15	Introduction of participants			
13:15 - 13:20	Group photo			
13.20 - 13.40	Introduction of Biogas Research at CTU	Prof. Nguyen Huu Chiem		
13:40 - 14:00	Introduction to JASTIP and JASTIP-Net activities	Prof. Hideaki Ohgaki		
(Malaysia)	Electrification in Sarawak, Malaysia			
14:00 - 14:30	Community Renewable Energy in Japan	Dr. Takuo Nakayama		
(Japan)	CRE of Greenhouse with PV in Japan	Prof. Keiichi N. Ishihara		
14:30 - 15:00	Community Renewable Energy in Thailand	Dr. Chachawan Chaichana		
(Thailand)	Survey of Successful and Unsuccessful Cases	Ms. Nilubon Luangchosiri		
15:00 - 15:30	Community Renewable Energy in Vietnam	Mr. Ryo Takeuchi		
(Vietnam)	Evaluation of CRE in Vietnam	Dr. Nguyen Thi Anh Tuyet		
15:30 - 15:50	Coffee break			
15:30 - 17:20	Introduction of JIRCAS	Facilitator: Dr.Chatchawan		
	Introduction of GreenID	Chaichana		
	Introduction of CRE activities	Commentators: GreenID, Local		
	Discussion session – Key factors to start CRE	government, JIRCAS, CTU		
	(Technology, Finance, Management etc.)			
17:40 - 17:50	Wrap up and closing remarks	Prof. Keiichi N. Ishihara		
18:00	Reception			

Table 1 Workshop Agenda "Community Renewable Energy in Vietnam, Thailand and Japan"

(On 28<sup>th</sup> – 29<sup>th</sup> July 2017, at "Can Tho University in Veitnam)

#### 5. List of publications

Example of description: Navaporn Kaerkitcha, Surawut Chuangchote and Takashi Sagawa, "Control of physical properties of carbon nanofibers obtained from coaxial electrospinning of PMMA and PAN with adjustable inner/outer nozzle-ends," Nanoscale Research Letters, 11(1), 1-9, 2016

Ryo Takeuchi (2017) "Shifts oh ousehold - energy using in rural VN: from case studies in Phu Tho", VN, *Environment Economics and Policy* vol.10 (in Japanese )

Ryo Takeuchi, Kazuki Hao, Dang Tanh Tu (submitting) "Present situation and future of household Biogas in Northern Vietnam: How to develop it to energy for Sustainable Development" *Energy for Sustainable Development* 

Kazuki Hao, Dimiter Ialnazov (2016) 'Using Community Renewable Energy (CRE) to achieve Sustainable Development in Vietnam' (Submitted to the 15th International Convention of the East Asian Economic Association Sustainable and Inclusive Development in Asia and the Global Economy, November 5-6, 2016 in Bandung, Indonesia, and accepted for the paper presentation)

#### 6. List of oral presentations

Example of description: Worasuwannarak N, Wannapeera J, Jadsadajerm S, and Miura K. Upgrading of rice straw and leucaena by degradative solvent extraction using 1-methylnaphthalene and kerosene at 350 oC. The 21st International Symposium on Analytical and Applied Pyrolysis, Nancy, France, 9-12 May 2016.

Takuo Nakayama. Community Renewable Energy in Japan, International workshop "Community Renewable Energy in Vietnam, Thailand and Japan". Can Tho in Veitnam, 28–29 July 2017.

Keiichi Ishihara. CRE of Greenhouse with PV in Japan, International workshop "Community Renewable Energy in Vietnam, Thailand and Japan". Can Tho in Veitnam, 28–29 July 2017.

Ryo Takeuchi, Community Renewable Energy in Vietnam, International workshop "Community Renewable Energy in Vietnam, Thailand and Japan". Can Tho in Veitnam, 28–29 July 2017.

Ryo Takeuchi, Takuo Nakayama, Keiichi Ishihara, Ialnazav Dimiter Savov, Kazuki Hao, Nguyen Thi Hoan Lien, Yao Lixia, Danh Tanh Tu (2017) "Local Energy Governance and Community Renewable Energy (CRE) in Vietnam, Third JASTIP Symposium, Bangkok Thailand, 5 Feb 2017